

## Scame and sport



In the sporting field Scame offers support and opportunities to athletes and teams who distinguish themselves in sports that demand hard and consistent work.



## SECTION 2

### Systems and Components for Electrical Installations



## ELECTRICAL COMPONENTS AND SYSTEMS FOR INDUSTRIAL AND SIMILAR APPLICATIONS

SCAME's aim in creating the products described in this section is to offer a wide range of components and systems for electrical installations that provide power distribution for industrial purposes, including agriculture, building sites, camping sites and shipyards, to mention a few. These products assure top versatility, reliability and safety both when used for routine jobs and in exceptional or very demanding working conditions.

SCAME's product lines presented in this section for the applications mentioned above include:

### - Modular-unit systems

comprising the integrated Systems DOMINO, ADVANCE and OMNIA.

Using the first two, electrical distribution systems can be built up either by combining the basic components or with combination units comprising distribution assemblies and control units. OMNIA is designed for building up small distribution systems with interlocked sockets, to be flush-mounted or surface-mounted.

The large number of possible combinations means these systems are highly flexible. They can therefore meet the most diverse installation requirements for terminal electrical distribution systems.

### - Components for electrical systems

mainly intended for use in the manufacturing and service industries and on building sites. SCAME's range of products comprises different series of IEC 60309 industrial plugs and sockets, rotary and emergency switches and light fittings.

These products, manufactured incorporating modern production systems, have met with considerable success at home and abroad as a result of their quality, reliability and large number of possible installation options.

## NEW



**DOMINO Series**  
Modular enclosure for  
OMNIA Series 63A

page 153



**SCABOX Series**  
Wall mounting  
bracket kit

page 189



**ALUBOX Series**  
DIN rail kit

page 201



**DOMINO Series**  
Supply panel for  
electric vehicles

page 221

## OVERVIEW OF SCAME MODULAR COMPONENTS

### INTEGRATED SYSTEMS FOR ELECTRICAL INSTALLATIONS

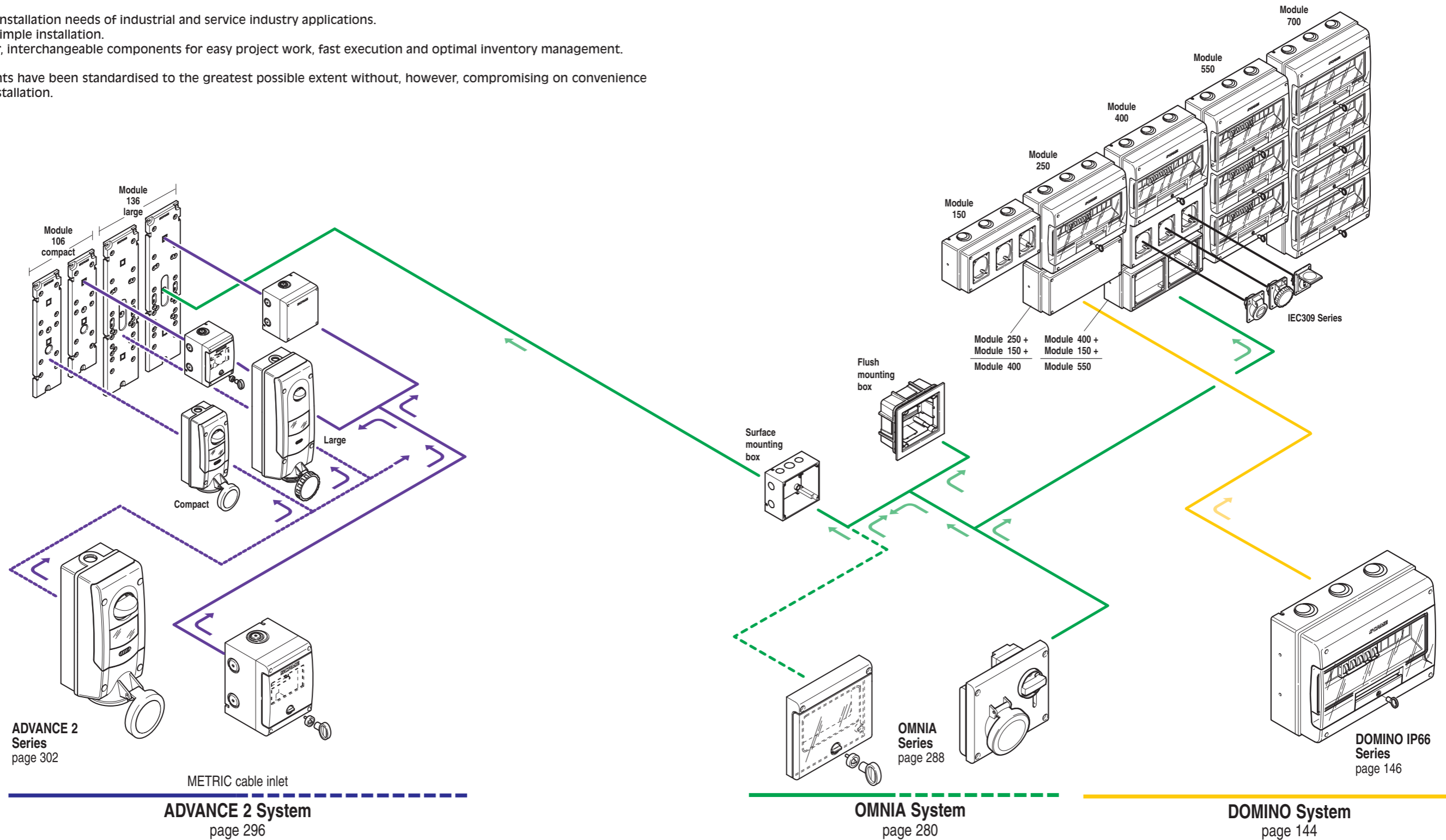
Scame produces three integrated systems for assembling weatherproof electrical distribution and connection installations:

- the **DOMINO System** a modular system of enclosures for distribution assemblies and consumer units
- the **ADVANCE 2 System** a modular system for combination units
- the **OMNIA System** a modular flush and surface mounting system

The three SCAME systems have been designed specifically:

- to meet the installation needs of industrial and service industry applications.
- for fast and simple installation.
- with modular, interchangeable components for easy project work, fast execution and optimal inventory management.

The components have been standardised to the greatest possible extent without, however, compromising on convenience and ease of installation.





**2.1**  
Enclosures for electrical equipment in plastic material ..... from page 143



**2.2**  
Plugs and sockets for industrial applications ..... from page 205



**2.3**  
Interlocked switch socket outlets ..... from page 277



**2.4**  
Switchgear ..... from page 319



**2.5**  
Light fittings ..... from page 343

## ENCLOSURES FOR ELECTRICAL EQUIPMENT



- DOMINO Series**
- surface mounting IP66
  - surface mounting IP40
  - flush mounting IP40

- EASYBOX Series**  
**SCABOX Series**  
**CUBIK Series**  
**WBOX Series**  
**ALUBOX Series**





## DOMINO SERIES CONSUMER UNITS AND ENCLOSURES

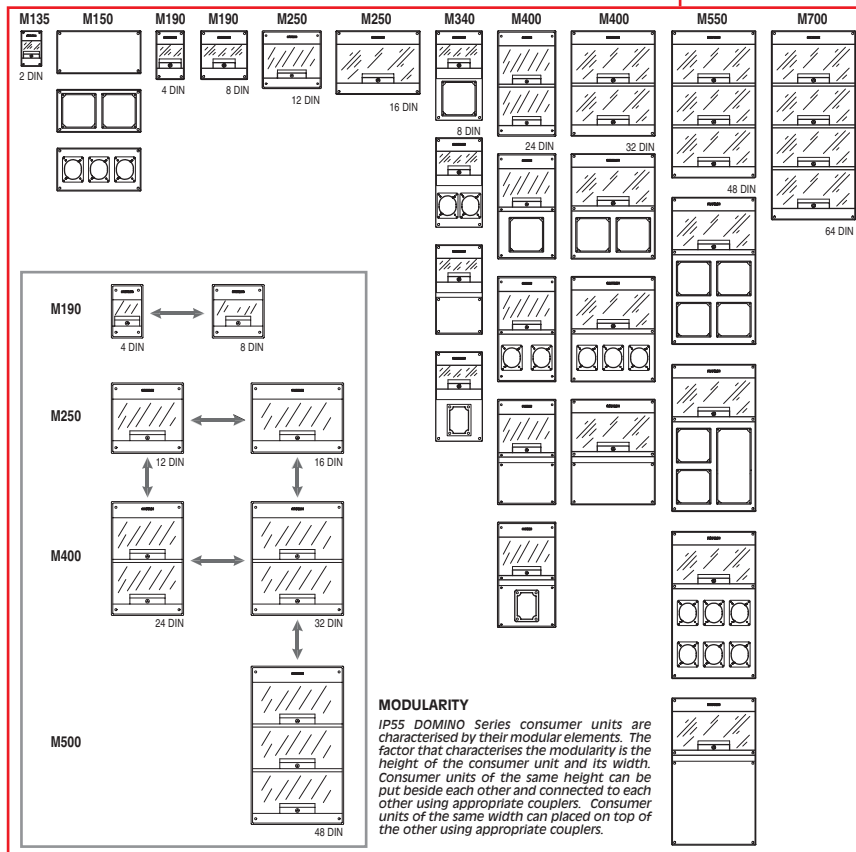
DOMINO Series consumer units are characterised by their modularity and the ease with which single components can be interchanged.

### VERSIONS:

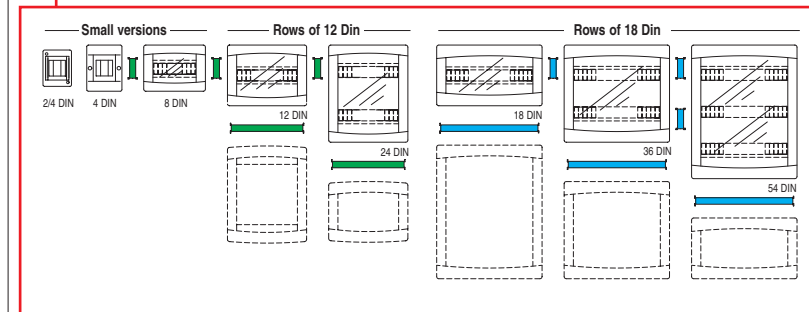
- IP66 - surface mounting
- IP40 - surface mounting with window
- IP40 - surface mounting without window
- IP40 - flush mounting with window



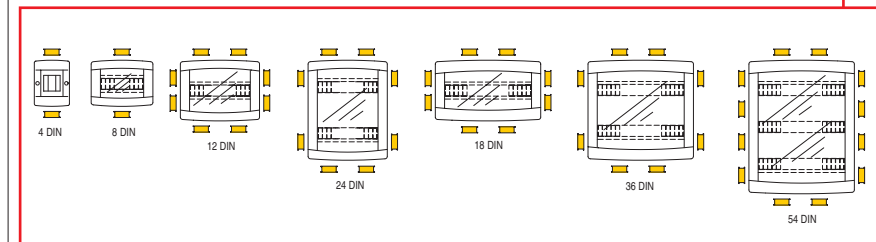
### MODELS AVAILABLE



### MODELS AVAILABLE - (Surface mounting consumer units)



### MODELS AVAILABLE - (Flush mounting consumer units)



- Item 654.0041  
Coupler for horizontal connection rows of 12 Din
- Item 654.0043  
Coupler for vertical connection rows of 12 Din
- Item 654.0042  
Coupler for horizontal connection rows of 18 Din
- Item 654.0044  
Coupler for vertical connection rows of 18 Din
- Item 654.0045  
Coupler for connection of flush mounting models

- Plugs and sockets
- Adaptors
- Domestic cablereels
- Lampholders
- TV & Phone



- Plates and devices



- Enclosures



- Plugs and sockets



- Interlocked sockets



- Switchgear



- Light fittings



- Distribution assemblies



- Adaptors



- Industrial cable reels



- Wire connectors



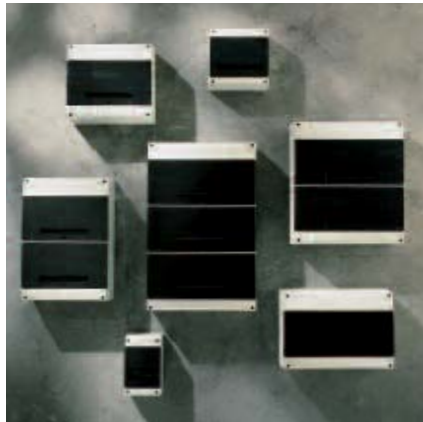
- Conduits



- Trunking



## SURFACE MOUNTED VERSION - IP66

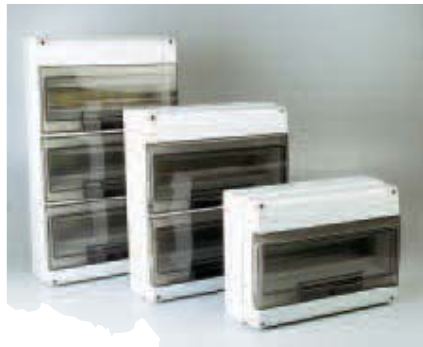


Meets a large number of installation needs in industrial and similar premises. With a modern and attractive design it blends well into any setting.

In version IP66, the DOMINO System offers a complete range of consumer units and sealed mounted enclosures for distribution assemblies. They are extremely flexible in the ways they can be used and extended.



**Consumer units.** They house 4, 8, 12, 16, 24, 32, 48 and 64 DIN modules.



## REFERENCE STANDARDS

**CEI 23-48**  
Part 1: General requirements for enclosures for accessories for household and similar fixed electrical installations.

**CEI 23-49**  
Enclosures for accessories for household and similar fixed electrical installations  
Part 2: Detailed requirements for enclosures for containing protective devices and appliances that under ordinary use dissipate significant energy.

## MODULARITY

The system is composed of a series of MODULES that make up the different kinds of distribution assemblies and consumer units in the following dimensions:

- **MODULE 135:** 135x102x76 mm (HxWxD)
- **MODULE 150:** 150x328x115 mm (HxWxD)
- **MODULE 190:** 190x184x106 mm (HxWxD)
- **MODULE 250:** 250x328x140 mm (HxWxD)
- **MODULE 340:** 340x184x106 mm (HxWxD)
- **MODULE 400:** 400x328x140 mm (HxWxD)
- **MODULE 550:** 550x328x140 mm (HxWxD)
- **MODULE 700:** 700x328x140 mm (HxWxD)

## DETAILS:

### Consumer units enclosures

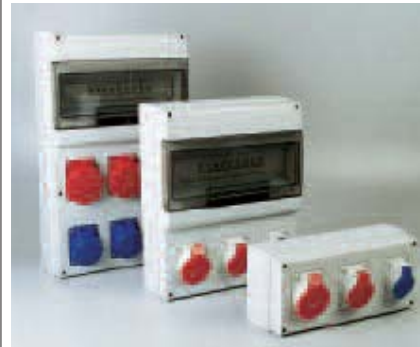
Versions in 2-4-8-12-16-24-32-48-64 DIN modules offer the possibility of extending the unit even after it has been installed.

### Distribution assemblies enclosures

- Versions in 8, 12 and 16 DIN modules and
  - blank panel
  - front panel with cutouts to house:
    - **OMNIA Series 16A, 32A and 63A** interl. switch socket outlets
    - **IEC309 Series or EUREKA Series 16A, 32A and 63A** panel mounting socket outlets

### Boxes with cutouts. They can house 1 to 6 socket outlets:

- Series IEC309 both IP44 and IP67
- Panel-mounting series for domestic use 16A, IP44



## versions

### Module 135

- 2 modules consumer units

### Module 150

- Enclosures with blank cover.
- Enclosures with cutouts to house 2 OMNIA Series 16 or 32 A interlocked-switch socket outlets, IP44 or IP67.
- Enclosure with cutouts to house 3 IEC309 series 16A sockets, IP44 or IP67

### Module 190

- 4/8 DIN modules consumer units.

### Module 250

- 12/16 DIN modules consumer unit.

### Module 340

- 8 DIN modules consumer unit with blank panel.
- 8 DIN modules distribution box and housing with cutouts to contain 1 OMNIA Series 16 or 32 A interlocked switch socket outlets, IP44 or IP67.
- 8 DIN modules distribution box with cutouts to house 2 IEC309 Series 16A sockets, IP44 or IP67 or 3 domestic socket 16A IP44.
- 8 DIN modules distribution box with cutouts to house 1 IEC309 Series 32A sockets, IP44 or IP67.

### Module 400

- 24/32 DIN modules consumer unit.
- 12/16 DIN modules distribution box with blank panel.

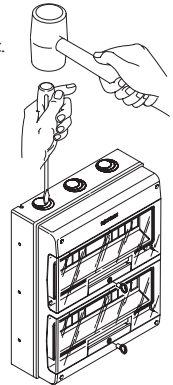
- 12/16 DIN modules distribution box and housing with cutouts to contain 1 or 2 OMNIA Series 16 or 32 A interlocked switch socket outlets, IP44 or IP67.
- 12/16 DIN modules distribution box with cutouts to house 2 or 3 IEC309 Series 16A sockets, IP44 or IP67.
- 12 DIN modules distribution box with cutouts to house 1 IEC309 Series 63A sockets, IP67.

### Module 550

- 48 DIN modules consumer unit.
- 16 DIN modules distribution box with double blank panel.
- 16 DIN modules distribution box and housing with cutouts to contain 4 OMNIA Series 16 or 32 A interlocked switch socket outlets, IP44 or IP67.
- 16 DIN modules distribution box with cutouts to contain 2 OMNIA Series 16 or 32A and 1 OMNIA Series 63A.
- 16 DIN modules distribution box with cutouts to house 6 IEC309 Series 16 A sockets, IP44 or IP67

### Module 700

- 64 DIN modules consumer unit.



*Points to hit when knocking out the desired diameter (it is better to use a screwdriver with a 4 mm blade)*

**Enclosures with cutouts.** They house 1 to 4 16 A and 32 A interlocked-switch sockets of the OMNIA Series, IP44 and IP67.



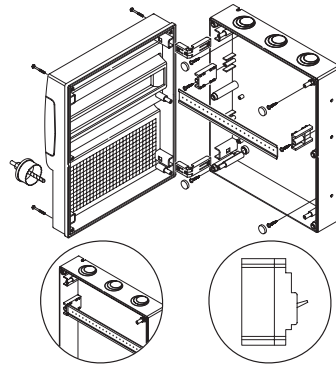
**Enclosures with blank panel.** For housing different types of electrical apparatus for special applications.



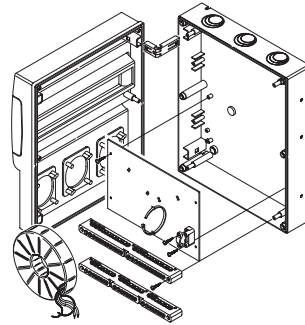


## STRUCTURAL CHARACTERISTICS

- Stainless steel quick-action screws for fastening down the cover.
- EN 50022 rails adjustable vertically
- Provision for installing 125 A moulded-case circuit breakers fitted on DIN rails.
- Distance between the rails: 150 mm.
- Lockable and sealable tinted window (closing by simple pressure).
- Knockouts on all sides:  
top: n°3 PG21 / PG29 / PG36  
bottom: n°3 PG21 / PG29 / PG36  
sides: drilling points provided.
- Ample space ahead of and after the EN 50022 rail for easy wiring.
- Wires can run under the EN 50022 rail for easy connection.
- Provision for mounting a 24 V~ 300 VA (SELV) safety transformer.
- Provision for fitting the hinges on the right or on the left side of the unit.
- Surface mounting with fastening from the inside or from the rear with supports (the base may also be flush mounted).
- Provision for carrying handle.
- Rear cover chequered with 10x10 mm squares for fast centralising of any appliance mounted by means of self-tapping screws.
- The modules may be coupled together using PG36 couplers on all sides.
- Draining holes at two ends (top and bottom).



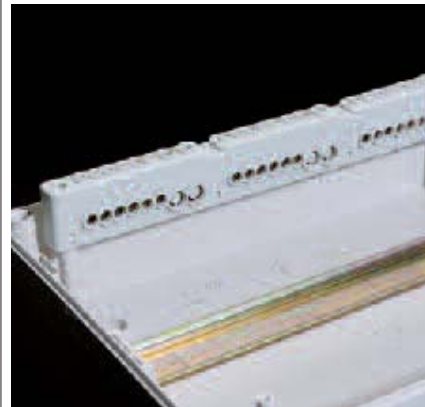
Provision for installing 125 A moulded-case circuit breakers fitted on DIN rails, for the versions 12 to 64 DIN modules.



The multi-pole terminal blocks make for a rapid and neat wiring of the earthing, neutral and phase circuits. Can be fixed either on the upper or the lower part of the consumer unit.

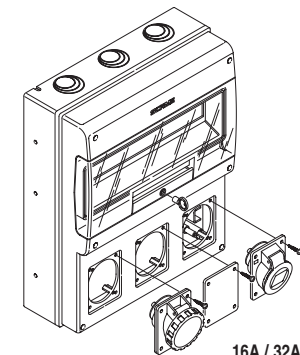


Hinges: should be snap-fitted into their guides, can be mounted on the left or the right side, in the series versions 12 to 64 DIN modules.

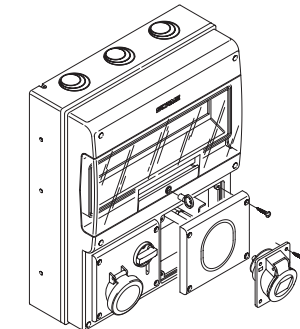


## TECHNICAL CHARACTERISTICS

- Protection degree IP66 to IEC 60529 and CEI 70-1
- Non-ageing elastomer seals.
- Total insulation  $\square$  (use the bottom insulating caps supplied).
- Made of halogen-free self-extinguishing thermoplastic material. RAL 7035 grey, abnormal heat and fire resistant up to 650 °C (glow-wire test to IEC 60695-2-1).
- Dimensional stability in continuous operation from -25 °C to +60 °C.
- Max. operating temperature: 60°C.
- Impact resistance: 6 Joule
- Resistance to chemicals (water, saline solutions, acids, alkaline, mineral oils) and weathering.
- The units are approved for the installation of assemblies to IEC 60439, part 1 and part 4, EN 60439 part 1 and part 4.

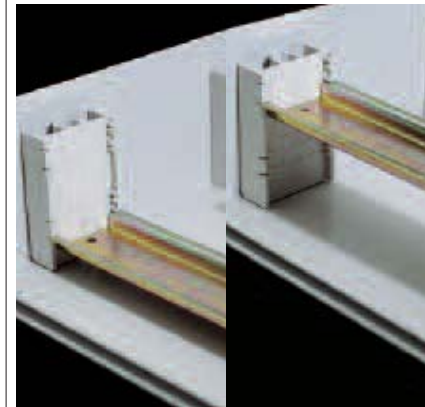


16A / 32A / 63A



16A / 32A / 63A

DIN rail (EN 50022): can be placed on different levels.



The semi-transparent tinted window, lockable and sealable. To open it, just lower the handle provided, snap-closing.



Plugs and sockets



Adaptors



Domestic cable reels



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits

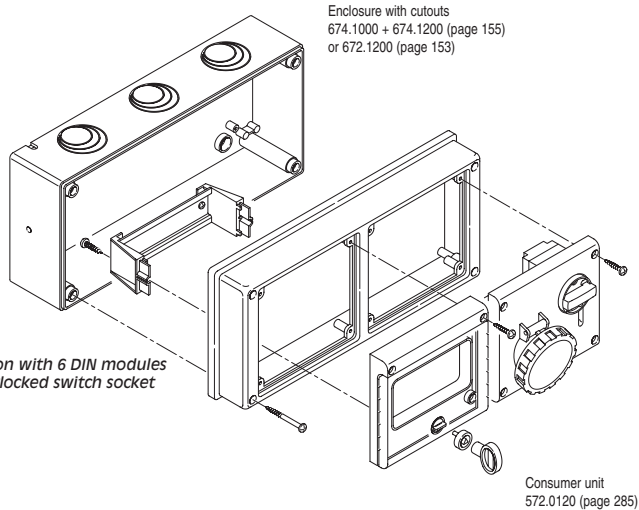


Trunking



### ACCESSORIES

- Neutral and earthing terminal blocks to IEC 60998-1 and IEC 60998-2 consisting of 3x35-mm<sup>2</sup> and 10x16-mm<sup>2</sup> terminals - IP20.
- Terminal block for R, S, T phases to IEC 998-1 and IEC 998-2 consisting of 2x35-mm<sup>2</sup> and 6x16-mm<sup>2</sup> terminals IP20. (The two terminal blocks may be fitted either in the upper or in the lower part of the consumer units).
- Self-adhesive label for circuit identification.
- 4 DIN module covers.
- Blank plate to cover unused cutouts.
- Carrying handle (not supplied)
- Zinc plated mounting plates measuring 110 X 275 and 180 X 275 mm.
- Triangular key.



Installation with 6 DIN modules and interlocked switch socket outlet



### CONSUMER UNITS - IP66

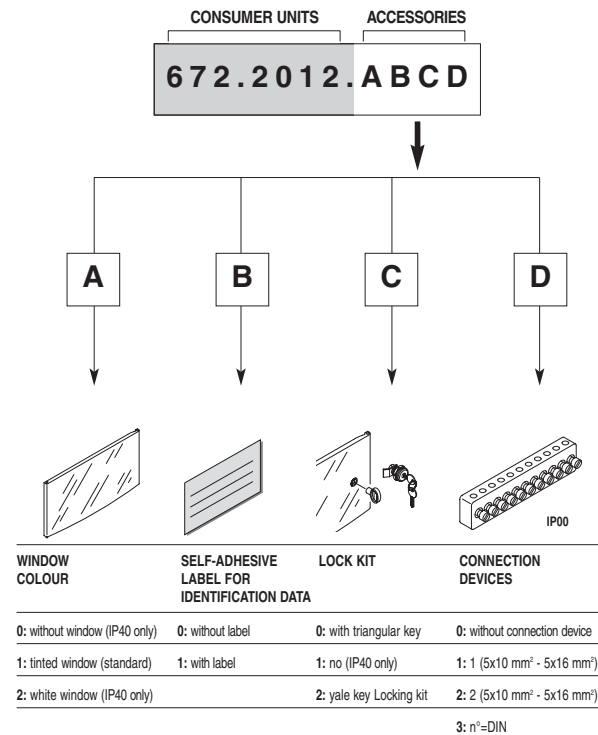
Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

- Accessories: from page 156
- Dimensions: page 158

MODULE	DIN MODULES (17,5mm)	DIMENSIONS h x b x p (mm)	DISSIPABLE POWER*	PACK QTY.	CATALOGUE NUMBER	
					STANDARD VERSIONS	SPECIAL CONFIGURATION
M135	2	135x76x102	6W	1/24	672.2002	-
M190	4	190x112x106	10W	1/16	672.2004	-
	8	190x184x106	14W	1/10	672.2008	672.2008.1101
M250	12	250x256x140	22W	1/9	672.2012	672.2012.1101
	16	250x328x140	28W	1/6	672.2016	672.2016.1101
M400	24 (12x2)	400x256x140	30W	1/6	672.4024	672.4024.1102
	32 (16x2)	400x328x140	47W	1/4	672.4032	672.4032.1102
M550	48 (16x3)	550x328x140	54W	1/3	672.5048	672.5048.1102
M700	64 (16x4)	700x328x140	60W	1	672.7064	672.7064.1102

\* According to CEI 23-49 standard

### SPECIAL CONFIGURATION:





## MODULAR ENCLOSURES - IP66

For surface mounting distribution units

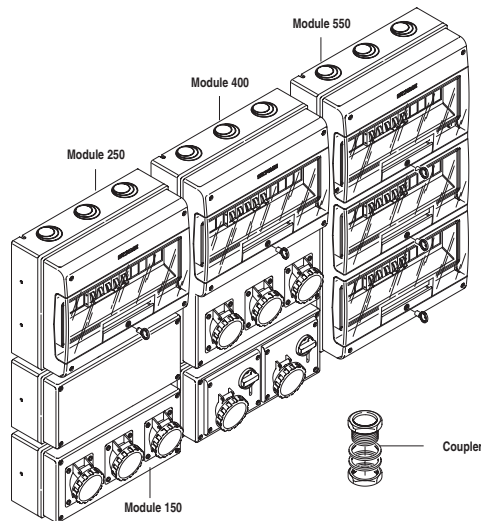
Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

- Accessories: from page 156
- Dimensions: page 158

### ENCLOSURES WITH BLANK FRONT PANEL

MODULE	DIN MODULES (17,5mm)	SOCKET OUTLETS	DIMENSIONS h x b x p (mm)	DISSIPABLE POWER*	PACK QTY.	CATALOGUE NUMBER
M150	-	-	150x328x115	20W	1/6	672.1100
M340	8	-	340x184x106	14W	1/10	672.2100
M400	12	-	400x256x140	22W	1/6	672.3100
	16	-	400x328x140	28W	1/4	672.4116
M550	16	-	550x328x140	28W	1/3	672.5116

\* According to CEI 23-49 standard



Note: Modules 150 and 250 are the basic elements that allow for any other kind of combination. All the enclosures can be enlarged with modules 150 and 250, even after installation.

With 150 and 250 Modules, it is possible to realise all sorts of combinations; modules 400, 550 and 700 speed up and simplify the wiring of the more commonly used versions.



## MODULAR ENCLOSURES - IP66

For surface mounting distribution units

Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

- Accessories: from page 156
- Dimensions: page 158

### ENCLOSURES WITH OMNIA SERIES CUTOUTS

MODULE	DIN MODULES (17,5mm)	SOCKET OUTLETS	DIMENSIONS h x b x p (mm)	DISSIPABLE POWER*	PACK QTY.	CATALOGUE NUMBER
M150#	-	2	150x328x115	20W	1/6	672.1200
M340	8	1	340x184x106	14W	1/10	672.2200
M400 •	12	1	400x256x140	22W	1/6	672.3200
	16	2	400x328x140	28W	1/4	672.4216
M550 •	16	3	550x328x140	28W	1/3	672.5316 ▲
	16	4	550x328x140	28W	1/3	672.5416

\* Reference standard: CEI 23-49

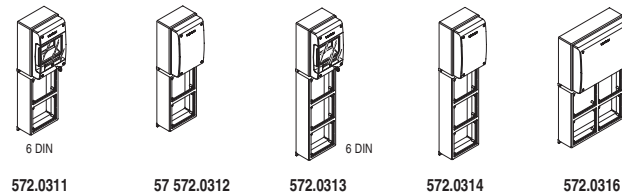
# Can house OMNIA Series consumer unit art.572.0120 (page 285)

• Connection device to be fixed in the upper side

▲ With cutouts to contain 2 OMNIA Series 16A or 32A and 1 OMNIA Series 63A

### OTHER ENCLOSURES

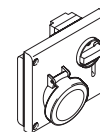
#### OMNIA Series



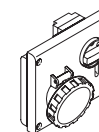
Page 287

### COMPONENTS

OMNIA Series  
Without fuse carrier

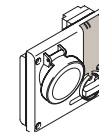


IP44  
page 291

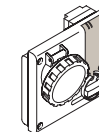


IP67  
page 291

OMNIA Series  
With fuse carrier



IP44  
page 293



IP67  
page 293



## MODULAR ENCLOSURES - IP66

For surface mounting distribution units

Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

- Accessories: from page 156
- Dimensions: page 158

### ENCLOSURES WITH IEC309 SERIES OR EUREKA SERIES CUTOUTS

MODULE	DIN MODULES (17,5mm)	SOCKET OUTLETS	DIMENSIONS h x b x p (mm)	DISSIPABLE POWER*	PACK QTY	CATALOGUE NUMBER
M150	-	3 ●	150x328x115	20W	1/6	672.1300
M340	8	2 ■	340x184x106	14W	1/10	672.2300
M340	8	1 †	340x184x106	14W	1/10	672.2301
M400	12	2 ●	400x256x140	22W	1/6	672.3300
	12	1 †	400x256x140	22W	1/6	672.3302
M550	16	3 ●	400x328x140	28W	1/4	672.4316
	16	6 ●	550x328x140	28W	1/3	672.5616

\* Reference standard: CEI 23-49

● For installation of 16A socket (70x87 mm) or, with suitable adaption, 32A socket (84x106 mm)

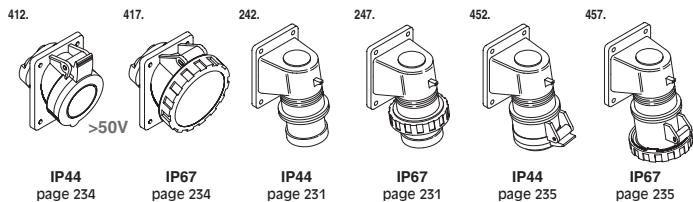
† 63A (100x110 mm)

■ 16A (70x87 mm)

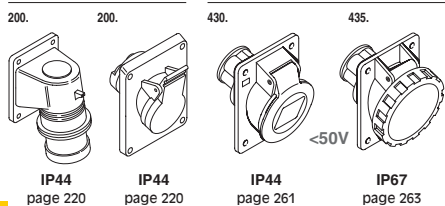
† 32A (84x106 mm)

## COMPONENTS

### EUREKA Series

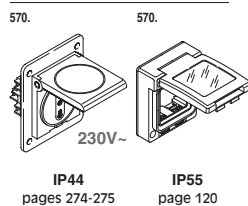


### LIBERA Series



### IEC309 Series

### Domestic



## MODULE 150

### Components

- Accessories: from page 156
- Suitable for: OMNIA Series (from page 291)  
IEC309 Series (from page 260)  
EUREKA Series (from page 230)  
DOMESTIC SOCKET OUTLET Series (pages 274 - 275)

### WALL MOUNTING BASE

- Complete with insulating sealing caps for double insulation
- With facility DIN rail fixture

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Suitable for any of the module 150 covers	6	674.1000

### BLANK COVER

- Complete with fastening screws

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Suitable for customised applications	6	674.1100

### COVER WITH 2 OMNIA SERIES CUTOUTS

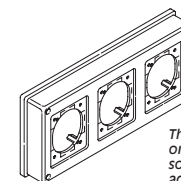
- With fastening screws for the cover

DESCRIPTION	CUTOUT FLANGE	PACK QTY.	CATALOGUE NUMBER
Suitable for OMNIA Series	136x125mm	6	674.1200

### COVER WITH 3 IEC309 OR EUREKA SERIES CUTOUTS

- With blank plate and fastening screws for the cover and the socket outlets

DESCRIPTION	CUTOUT FLANGE	PACK QTY.	CATALOGUE NUMBER
Suitable for IEC309 Series and EUREKA Series	70x87mm	6	674.1300



The cover for 3 sockets from the IEC309 Series or the EUREKA Series allows for installation of 16A socket (flange 70x87 mm) or with suitable adaptation, 32A socket (84x106 mm)



## ACCESSORIES FOR ENCLOSURES

### WALL MOUNTING BRACKETS KIT

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Wall mounting brackets (4 pieces)		10	654.0020
Cover sealing kit (2 pieces)		25	654.0030
Connection kit PG36		25	654.0040
Handle kit with nut, cable clamp and fastening screws		10	654.0060
Yale look kit		10	654.0070

### RIDGED PROFILE FOR DIN RAIL

ENCLOSURES	COLOUR	PACK QTY.	CATALOGUE NUMBER
h 18mm (320 mm strip)		20	654.0090

### ZINC-COATED STEEL MOUNTING PLATE

- With fastening screws

ENCLOSURES	SUITABLE FOR	DIMENSIONS	PACK QTY.	CATALOGUE NUMBER
for DOMINO surface mounting enclosures module 150	16 DIN	275 x 110mm	10	654.0700
for DOMINO surface mounting enclosures module 250 (+)	16 DIN	275 x 180mm	10	654.0710

(+) Can be mounted in DOMINO 400 and 500 enclosures

The plate comes with slots for fitting the safety transformer through cable ties (cat. no 654.0210 or 654.0220).

### EN 50022 DIN RAIL VERTICALLY ADJUSTABLE

- With mounting brackets

ENCLOSURES	SUITABLE FOR	DIMENSIONS	PACK QTY.	CATALOGUE NUMBER
for surface mounting DOMINO enclosures IP66 M150, M400 and 550	16 DIN	295mm	10	654.0750
for surface mounting DOMINO enclosures IP66	12 DIN	223mm	10	654.0751

### BLANK PLATE FOR PANEL CUT OUTS

- For EUREKA, extra low voltage or domestic series socket outlets  
 - Supplied complete with self-adhesive gasket for IP67 (without gasket IP44)  
 - RAL 7035 grey

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Flange 70 x 87mm	25	654.0100



### SCAME PANEL HOUSING

- Modules snap into place

DESCRIPTION	FLANGE	PACK QTY.	CATALOGUE NUMBER
Enclosure for 2 "EVOLUTION Series" modules	70x87mm	10	570.5052
Enclosure for 2 modules: "Living International", "Luna", "Light" and "Light tech"		10	570.5012*

\* This insert has been realised with the authority of *Bticino spa* and it is suitable for "Living International", "Luna", "Light" and "Light Tech" inserts, whose trademarks are registered with *Bticino*.

### BLANK PLATE FOR PANEL CUT OUTS -IP55

- For OMNIA Series interlocked socket outlets  
 - With knock-outs for panel mounting of 16, 32 A and 63 A angled socket outlets EUREKA series.  
 - Supplied complete with gasket - IP55  
 - RAL 7035 grey

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Flange 136 x 125mm	6	654.0120

### SAFETY TOROIDAL TRANSFORMER

- For DOMINO boxes  
 - Safety Extra Low Voltage (SELV)  
 - To be fixed onto the mounting plate module 250, cat. no. 654.0710

DESCRIPTION	D	d	h	l	PACK QTY.	CATALOGUE NUMBER
220/24V - class F - 150VA	170	45	25	270 (mm)	1	654.0210
220/24V - class F - 300VA	170	39	38	270 (mm)	1	654.0220

Cables: black 220V- - red 24V-

### BLANK PLATE FOR DIN MODULES

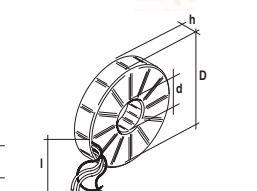
- For filling unused DIN modules  
 - RAL 7035 grey

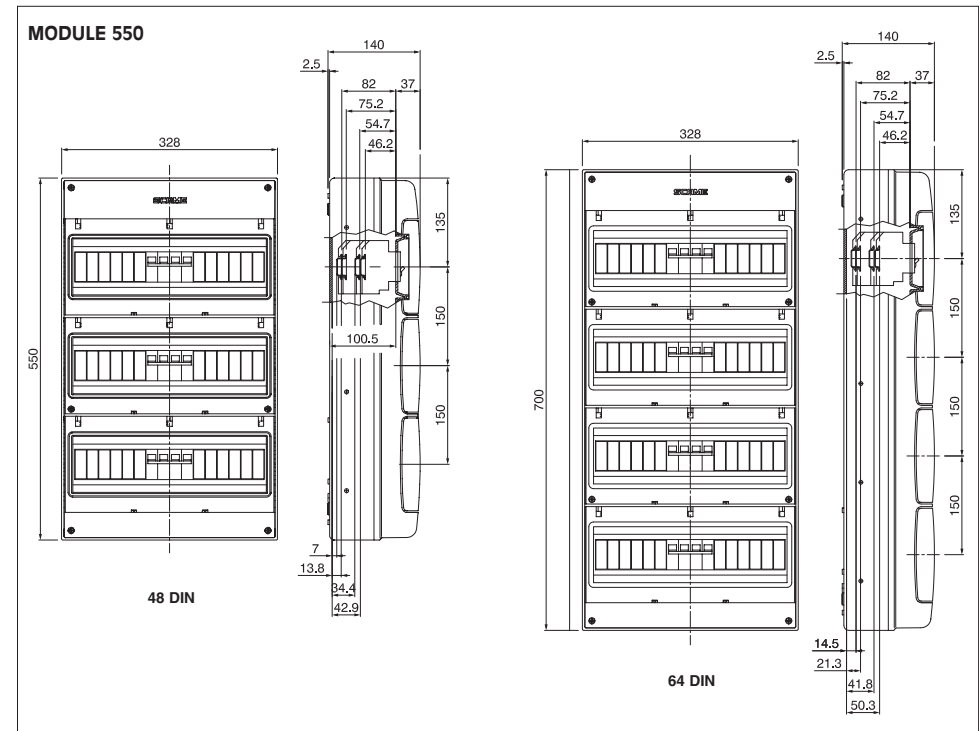
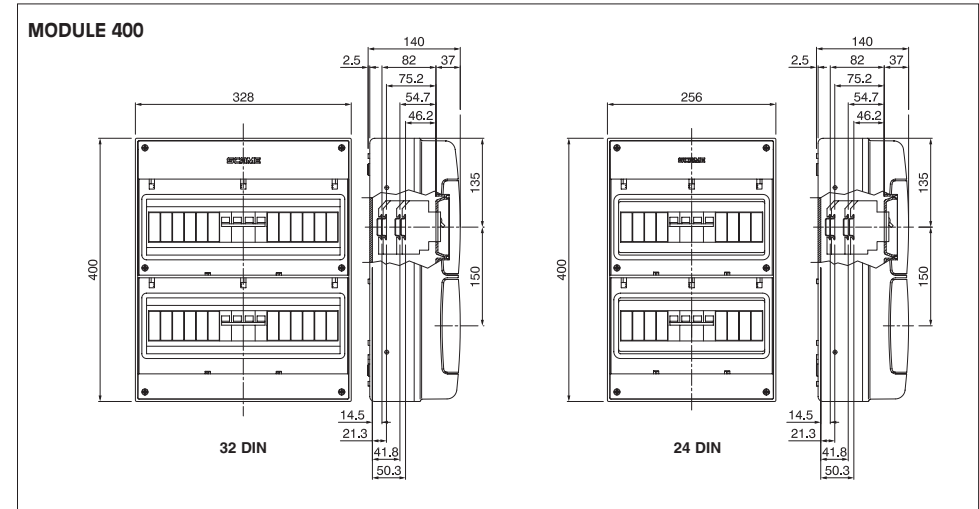
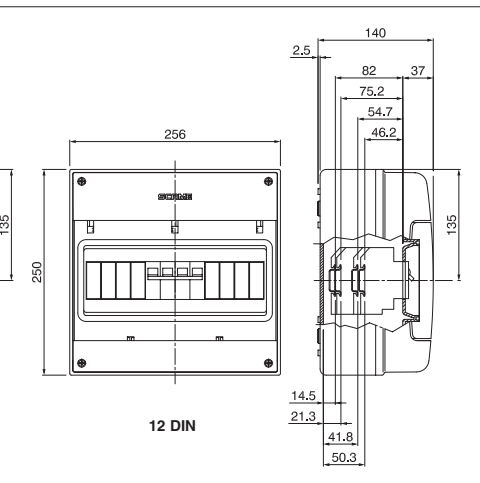
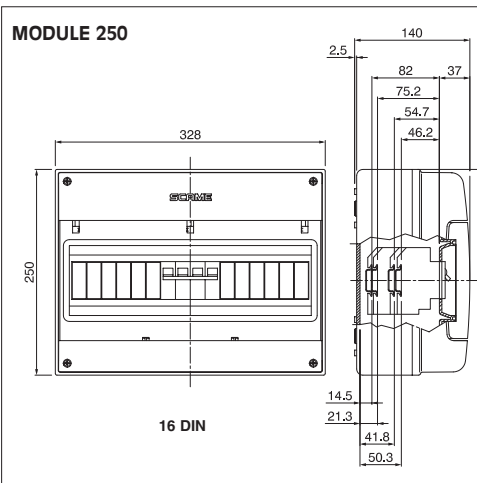
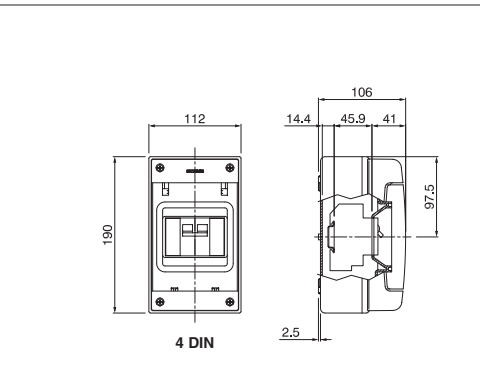
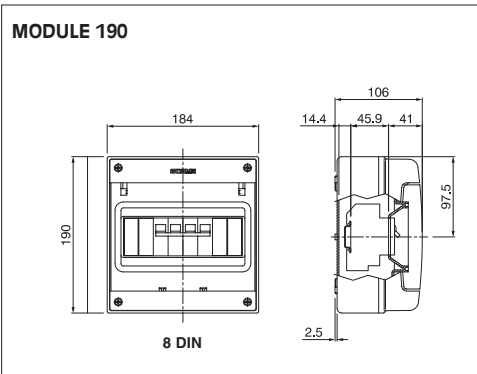
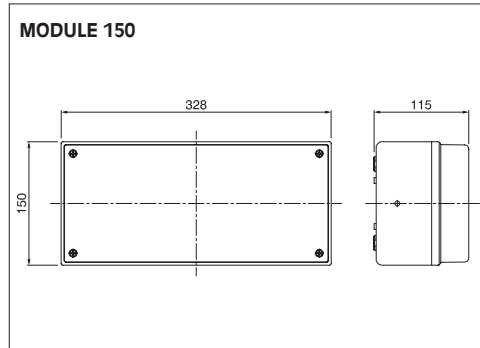
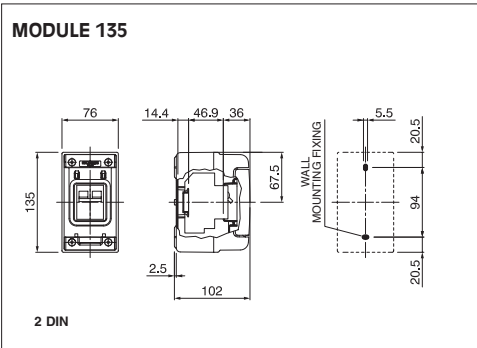
DESCRIPTION	DIMENSIONS	ATTACHING PLATE	PACK QTY.	CATALOGUE NUMBER
4 gang DIN	70 x 55mm	on opening	25	654.0400
1 gang DIN	17,5 x 55mm	on DIN rail	25	654.0410
1/2 gang DIN	9 x 55mm	on DIN rail	25	654.0420

When put between the modular devices these plates help dissipate heat.



See page 510

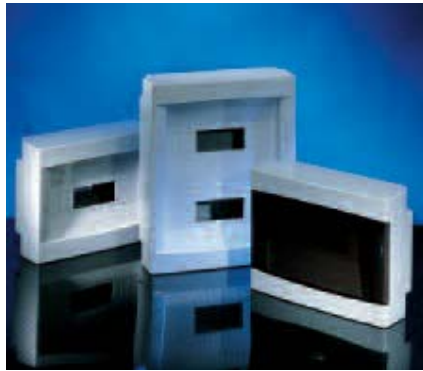




- Plugs and sockets
- Adaptors
- Domestic cablereels
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



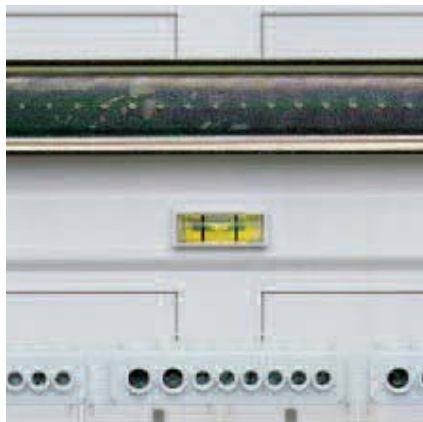
## SURFACE MOUNTING VERSION - IP40



### GENERAL DESCRIPTION

The DOMINO Series in its IP40 surface mounting version includes 8 enclosures which respectively take 2/4 - 4 - 8 - 12 - 18 - 24 - 36 - 54 DIN modules. The units and their covers are made of self-extinguishing thermoplastic material and are resistant to abnormal heat and fire up to 650°C (IEC695-2-1 glow-wire test). They are coloured RAL7035 grey; the more popular versions are also available in white. The product material is resistant to chemical and weathering agents and highly resistant to UV rays. The IP40 DOMINO Series surface mounting consumer units are available without a window, or with a polycarbonate tinted window. They are designed in such a way that they are easy to wire tidily because the wires can be put beside the switches and under the DIN rail. In addition, it is possible to install 53 or 68 mm high switches and 98 mm high moulded-case circuit breakers (18-36 and 54 DIN modules). The window is reversible and can be opened from both sides. The DOMINO Series conforms to the international standard IEC 670 and the Italian standard CEI 23-49.

Spirit level



### STRUCTURAL CHARACTERISTICS

- Surface mounted with screws and fixing plugs or optional external brackets
- Support frame for DIN rails that can be taken off for easier wiring, (only for 36 and 54 DIN) and fixed to the base with plastic screws a quarter-turn in plastic material.
- The upper and lower walls of the base can be taken off (not for 2/4, 4 and 8 DIN) to make holes to connect conduit or trunking in a comfortable working position.
- The removable, upper or lower walls can be simply installed, for joining consumer units vertically
- Option of putting in the cables from behind, using cut-outs at the bottom of the base
- Side cut-outs for side-by-side connection of other DOMINO consumer units using horizontal couplers
- Captive thermoplastic 1/4 -turn locking devices for closing the cover
- Drilling template on the back of the consumer unit
- DIN rail positioned to allow for placement of 53 and 68 mm high switches; in the 18-36-54 DIN versions it is possible to install 125A moulded-case circuit breakers
- Ample space to the side and under the DIN rails for cabling
- Distance between the rails: 150 mm
- Tinted window that can be opened to a maximum angle of 180° both left and right, with triangular key lock (yale key optional)
- Snap-closing window

1/4 turn locking device



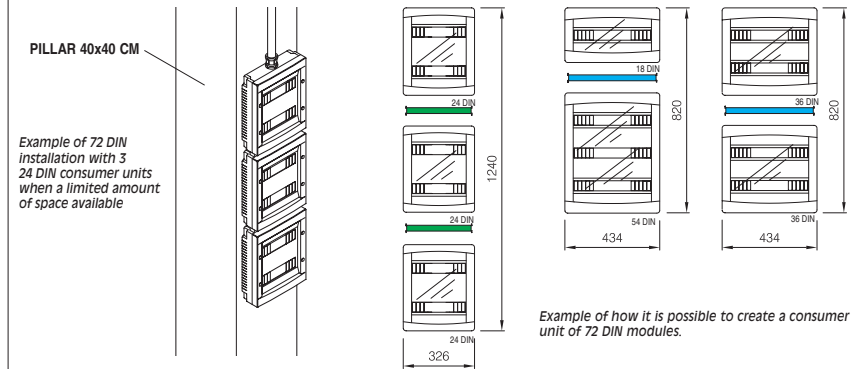
### VERSIONS

All the DOMINO Series consumer units in the IP40 surface mounting versions are modular. Using appropriate couplers, it is easy to connect the consumer units together. The number of DIN modules for each row defines the possible options:

- Consumer units with rows that are multiples of 12 DIN (12 and 24 DIN) can be easily connected with the appropriate 12 DIN couplers;
- Consumer units with rows that are multiples of 18 DIN (18, 36 and 54 DIN) can be connected using the 18 DIN couplers

### TECHNICAL CHARACTERISTICS

- IP40 protection degree
- Total insulation  $\square$  conforming to European standard EN 60439-1 (use the insulating sealing caps provided)
- Halogen-free thermoplastic material
- Self-extinguishing: 650°C (glow-wire)
- Dimensional stability: from -25°C to +60°C
- Max operating temperature: 60°C
- Resistant to chemical and weathering agents



Vertical connection



Horizontal connection



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

## SURFACE MOUNTING CONSUMER UNITS - IP40

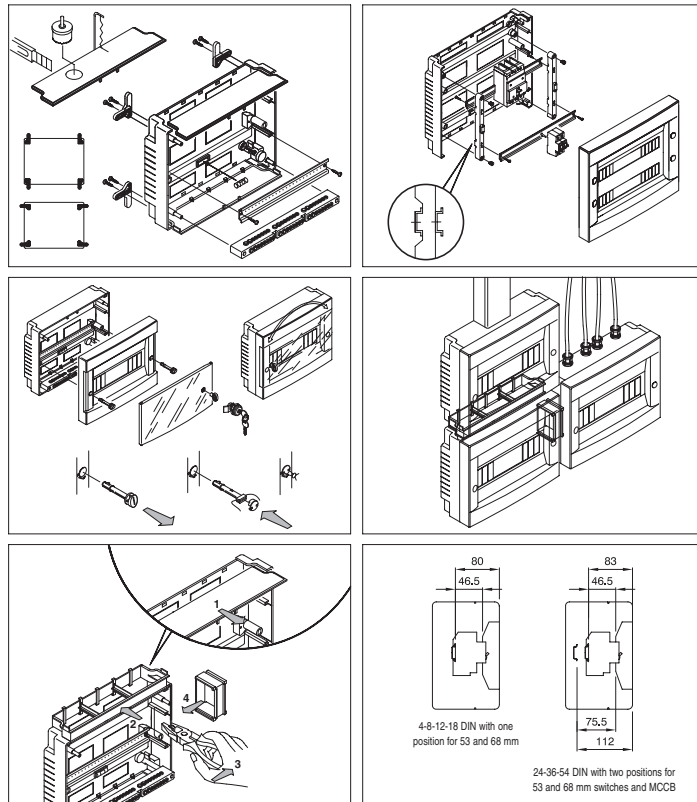
Without window

Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

MULTIPLES OF	DIN MODULES (17.5 mm) TOTALS / FOR ROW	PACK QTY.	CATALOGUE NUMBER (▲)		
			grey base	white base	white base (♦)
4 DIN	2/4	1/36	673.2102	673.2102B	-
	4+1/2 (4+1/2)	1/24	673.2104	673.2104B	-
8 DIN	8+2 (8+2)	1/12	673.2108	673.2108B	673.2108B.0012
	12+2 (12+2)	1/7	673.2112	673.2112B	673.2112B.0012
12 DIN	24+4 (12+2)-(12+2)	1/5	673.4124	673.4124B	673.4124B.0012
	18+2 (18+2)	1/6	673.2118	673.2118B	673.2118B.0012
18 DIN	36+4 (18+2)-(18+2)	1/4	673.4136	673.4136B	673.4136B.0012
	54+6 (18+2)-(18+2)-(18+2)	1/2	673.5154	673.5154B	673.5154B.0012

(♦) Special configuration: page 151

(▲) Single package



## SURFACE MOUNTING CONSUMER UNITS - IP40

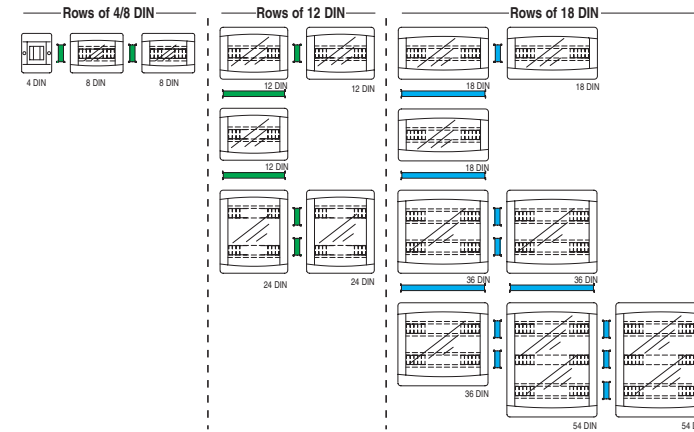
With window

Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

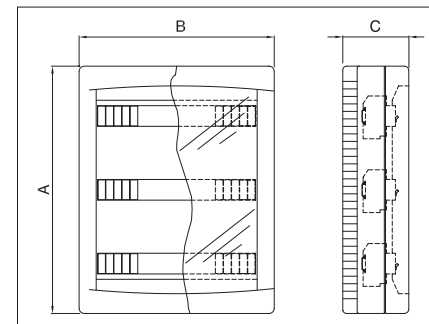
MULTIPLES OF	DIN MODULES (17.5 mm) TOTALS / FOR ROW	PACK QTY.	CATALOGUE NUMBER (▲)				
			grey base tinted window	white base tinted window	white base white window (♦) (▲)	white base white window (♦) (▲)	white base tinted window (♦)
8 DIN	8+1 (8+1)	1/12	673.2008	673.2008B	673.2008B.2010	673.2008B.2012	673.2008B.1101
12 DIN	12+1 (12+1)	1/7	673.2012	673.2012B	673.2012B.2010	673.2012B.2012	673.2012B.1101
	24+4 (12+2)-(12+2)	1/5	673.4024	673.4024B	673.4024B.2010	673.4024B.2012	673.4024B.1102
18 DIN	18+1 (18+1)	1/6	673.2018	673.2018B	673.2018B.2010	673.2018B.2012	673.2018B.1101
	36+4 (18+2)-(18+2)	1/4	673.4036	673.4036B	673.4036B.2010	673.4036B.2012	673.4036B.1102
	54+5 (18+2)-(18+1)-(18+2)	1/2	673.5054	673.5054B	673.5054B.2010	673.5054B.2012	673.5054B.1102

(♦) Special configuration: page 151

(▲) Without triangular lock; snap-closing (▲) Single package



### DIMENSIONS



**Connection Kit**  
 Item 654.0041 - 12 DIN Lateral  
 Item 654.0042 - 12 DIN Vertical  
 Item 654.0043 - 18 DIN Lateral  
 Item 654.0044 - 18 DIN Vertical  
 (See page 130)



## ACCESSORIES

### WALL MOUNTING BRACKETS KIT

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
n° 4 pieces		10	654.0020



### COVER SEALING KIT

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
n° 2 pieces		10	654.0033



### CONNECTION KIT

ENCLOSURES		PACK QTY.	CATALOGUE NUMBER	
DOMINO IP40 surface	multiples of 12 DIN (4-8-12-24) - horizontal	6	654.0041	654.0041B
	multiples of 18 DIN (18-36-54) - horizontal	6	654.0042	654.0042B
	multiples of 12 DIN (12-24) - vertical	6	654.0043	654.0043B
	multiples of 18 DIN (18-36-54) - vertical	6	654.0044	654.0044B



### YALE LOCK KIT

ENCLOSURE	COLOUR	PACK QTY.	CATALOGUE NUMBER
DOMINO IP40		10	654.0072



### RIDGED PROFILE FOR DIN RAIL

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
h 18mm (320 mm strip)		20	654.0090



### BLANK PLATE FOR DIN MODULES

- For filling unused DIN modules
- RAL 7035 grey

DESCRIPTION	DIMENSIONS	ATTACHING PLATE	PACK QTY.	CATALOGUE NUMBER
No. 4 DIN module	70 x 55mm	On opening	25	654.0400
No. 1 DIN module	17,5 x 55mm	On DIN rail	25	654.0410
No. 1/2 DIN module	9 x 55mm	On DIN rail	25	654.0420

When put between the modular devices these plates help to dissipate heat.



See page 510



Plugs and sockets



Adaptors



Domestic cable reels



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



## FLUSH MOUNTING VERSION IP40



### GENERAL DESCRIPTION

The DOMINO Series IP40 flush mounting consumer units comprise 7 enclosures that accommodate 4 - 8 - 12 - 18 - 24 - 36 - 54 DIN modules.

The units and their covers are made of self-extinguishing, thermoplastic material, RAL7035 grey and are resistant to abnormal heat and fire up to 650°C (IEC695-2-1 glow-wire test). The product material is resistant to chemical and weathering agents and highly resistant to UV rays. The DOMINO Series flush mounting consumer units IP40 are available with a polycarbonate tinted window. Their design makes for easy and tidy wiring as the cables can be placed under the DIN rail.

In addition, 53 and 68 mm high switches can be installed and 98 mm high moulded-case circuit breakers (where there are 24 or more modules). The window is reversible and can be opened from both sides.

The DOMINO Series conforms to the international standard IEC 60670 and the Italian standard CEI 23-49.

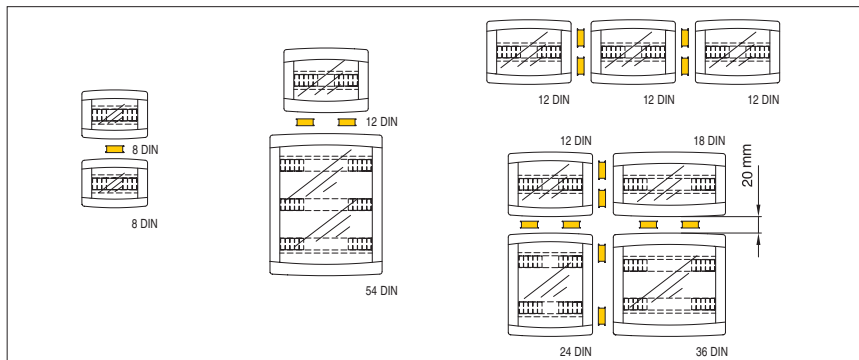
### VERSIONS

The DOMINO Series flush Mounting IP40 is characterised by modular elements. With the appropriate coupler, flush mounting units can be joined horizontally or vertically. The coupler, which stays embedded under the wall surface, aligns the units correctly under the wall surface (in terms of distance and alignment) and makes it easy to pass the wires from one consumer unit to another. The diagram illustrates the different possibilities.

### TECHNICAL CHARACTERISTICS

- Protection degree: IP40
- Total insulation  $\square$  conforming to European standard EN 60439-1
- Halogen-free thermoplastic material
- Self-extinguishing: 650°C (glow-wire)
- Dimensional stability: from -25°C to +60°C
- Max operating temperature: 60°C
- Resistant to chemical and weathering agents

### EXAMPLES OF JOINED MODULES



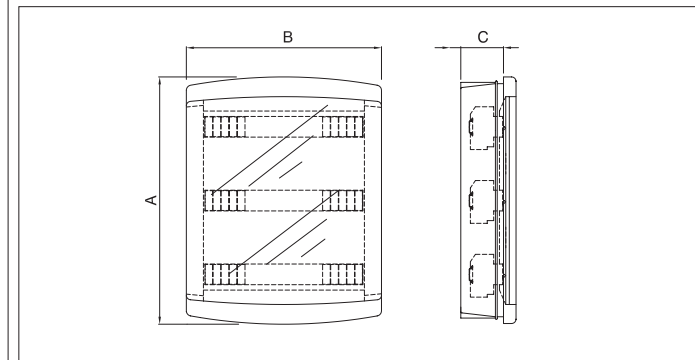
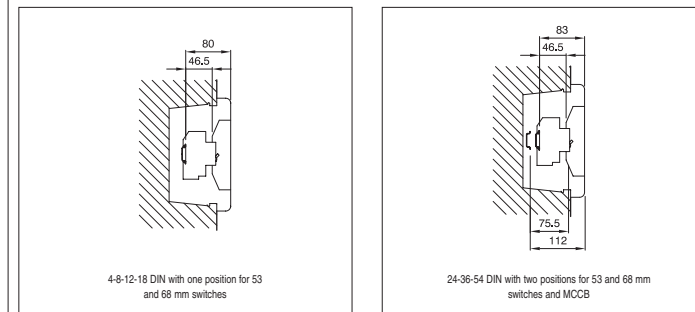
### STRUCTURAL CHARACTERISTICS

- Flush mounting under wall surface (75 mm height for consumer units in 1 row, 95 mm for units in 2 or more rows)
- Support frame for DIN rail can be taken off to make wiring easier
- Walls with cut-outs on all sides allow joining of additional consumer units using flush mounting couplers
- Option of putting the cables in from behind, using cut-outs in the bottom of the base
- Captive thermoplastic 1/4 -turn locking devices for closing the cover
- DIN rail positioned to allow for placement of 53 and 68 mm high switches; in the 24-36-54 DIN versions it is possible to install 125A moulded-case circuit breakers
- Ample space under the DIN rails for passing the wiring cables
- Distance between the rails: 150 mm
- Places for fixing the terminal blocks (supplied as optional accessories)
- Tinted window that can be opened to a maximum angle of 180° both left and right, with triangular key lock (yale key optional)
- Snap-closing window
- Possible to seal the cover

### SERIES ACCESSORIES

- Spirit level fitted in the base for perfect alignment of the consumer unit even if the wall is uneven
- Self-adhesive label for circuit identification
- Self-adhesive label for identification data, to be filled in by the installer and placed in an easily accessible position
- Blank covers for covering unused modules
- Triangular key

### DIMENSIONS



- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



## FLUSH MOUNTING CONSUMER UNITS - IP40

With window

Reference standard: CEI 23-48 and CEI 23-49 (Italian standard)

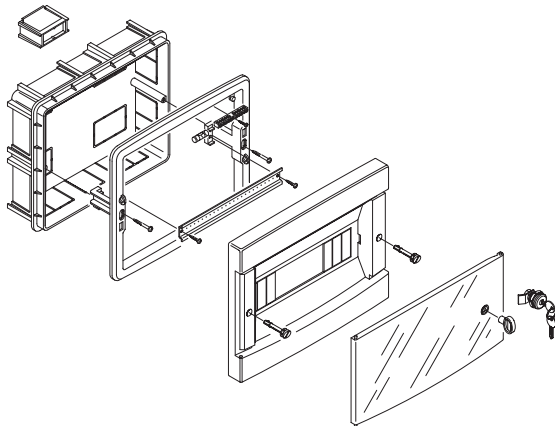
MULTIPLES OF	DIN MODULES (17.5 mm) TOTALS / FOR ROW	PACK QTY.	CATALOGUE NUMBER (▲)				
			gray base tinted window	white base tinted window	white base white window (●) (*)	white base white window (●) (*)	white base tinted window (●)
4 DIN	4+1/2 (4+1/2)	1/38	675.2104*	675.2104B*	-	-	-
	8+1 (8+1)	1/10	675.2008	675.2008B	675.2008B.2010	675.2008B.2012	675.2008B.1101
12 DIN	12+1 (12+1)	1/7	675.2012	675.2012B	675.2012B.2010	675.2012B.2012	675.2012B.1101
	24+4 (12+2)-(12+2)	1/5	675.4024	675.4024B	675.4024B.2010	675.4024B.2012	675.4024B.1102
18 DIN	18+1 (18+1)	1/7	675.2018	675.2018B	675.2018B.2010	675.2018B.2012	675.2018B.1101
	36+4 (18+2)-(18+2)	1/3	675.4036	675.4036B	675.4036B.2010	675.4036B.2012	675.4036B.1102
	54+3 (18+1)-(18+1)-(18+1)	1/2	675.5054	675.5054B	675.5054B.2010	675.5054B.2012	675.5054B.1102

(●) Special configuration: page 151

\* without window

(\*) Without triangular lock; snap-closing

(▲) Single package



### DIMENSIONS AND DISSIPABLE POWER\*

DIN MODULES	SURFACE MOUNTING			FLUSH MOUNTING	
	DIMENSIONS (mm) AxBxC	WITHOUT WINDOW	WITH WINDOW	DIMENSIONS (mm) AxBxC	WITH WINDOW
2/4	130x97x84	9W			
4	190x135x108	11W		180x150x75	17W
8	190x254x108	18W	17W	210x254x75	21W
12	250x326x108	25W (50WΔ)	24W (48WΔ)	270x326x75	32W
24	400x326x108	41W (87WΔ)	35W (63WΔ)	420x326x95	52W (74WΔ)
18	250x434x140	43W (85WΔ)	42W (74WΔ)	270x434x75	36W
36	400x434x140	75W (108WΔ)	57W (96WΔ)	420x434x95	61W
54	550x434x140	103W (140WΔ)	75W (125WΔ)	570x434x95	71W

(Δ) Two consumer units on top of each other joined by specially designed accessories

\* Power calculated in conformity to CEI 23-49 standard



## ACCESSORIES

### CONNECTION KIT

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Connection kit		6	654.0045

### YALE LOCK KIT

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Yale lock kit		10	654.0072

### BLANK PLATE FOR DIN MODULES

- For filling unused DIN modules
- RAL 7035 grey

DESCRIPTION	DIMENSIONS	ATTACHING PLATE	PACK QTY.	CATALOGUE NUMBER
No. 4 DIN module	70 x 55mm	On opening	25	654.0400
No. 1 DIN module	17,5 x 55mm	On DIN rail	25	654.0410
No. 1/2 DIN module	9 x 55mm	On DIN rail	25	654.0420

When put between the modular devices these plates help dissipate heat.



See page 510





## WEATHER-PROOF ENCLOSURES IP65



### GENERAL DESCRIPTION

Following its forward planning philosophy SCAME is offering a new range of weather-proof enclosures primarily designed for the industrial sector.

Attractively designed, their greatest appeal however lies in the way they are assembled.

## REFERENCE STANDARDS

### INTERNATIONAL STANDARD IEC 60670

Boxes and enclosure for electrical accessories for household and similar fixed electrical installation

### EUROPEAN STANDARD EN 62208

Empty enclosures for low-voltage switchgear and control gear assemblies - General requirements

### CEI 23-49 ITALIAN STANDARD

Enclosures for accessories for fixed electric installations for domestic and similar use  
Part 2: Specific requirements for enclosures used to contain protection devices and appliances that in ordinary use dissipate a not negligible power.

## VERSIONS

The EASYBOX Series weather-proof enclosures are made in:

- **LT** special high resistance thermoplastic compound
- **MV** metal 15/10 painted with an epoxy resin (only for internal use)
- **AI** stainless steel

There are 5 different enclosures on offer but the EASYBOX Series is characterised by a series of accessories common to all, easy to assemble and responding to the multiple requirements of an installation.



LT cabinet type 3 (460x520x245 mm)  
tinted door



LT cabinet type 4 (460x670x245 mm)  
blank door



LT cabinet type 4 (460x670x245 mm)  
tinted door and internal door



The EASYBOX Series designed by Scame can offer a variety of installation possibilities with just a few modular elements.

The new system is "EASY" not only in its name but in really helping the installer, both choosing the best installation solution and in the assembly phase thanks to the extreme simplicity of the installation and the multi-functionality of the components.

There are also many advantages for the distributor with Scame's EASYBOX Series, reducing the volume of stock in the warehouse - and thus related financial costs - because of the way the different components fit together.

Additionally, the EASYBOX Series can be joined to Scame's existing series of enclosures, DOMINO, SCABOX, ADVANCE and OMNIA.

The cabinets of the EASYBOX Series are suitable for housing equipment assembled according to the IEC

## VERSIONS

There are 5 cabinets available in the EASYBOX Series, each with three different variations (LT, MV and AI):

	Dimensions (mm)	rows of	max
Type 1	320x370x210	12 DIN	24 DIN
Type 2	460x370x245	20 DIN	40 DIN
Type 3	460x520x245	20 DIN	60 DIN
Type 4	460x670x245	20 DIN	80 DIN
Type 5	775x715x345	35 DIN	140 DIN

## DISSIPABLE POWER

Cabinet	DIN Modules	Set-up with chassis and DIN rail (W)			Set-up with base plate in L3 position (W)		
		LT	MV	AI	LT	MV	AI
Type 1	24 DIN	35	45	30	40	65	40
Type 2	40 DIN	50	60	42	84	105	62
Type 3	60 DIN	58	73	47	100	125	78
Type 4	80 DIN	85	98	63	125	150	94
Type 5	140 DIN	138	155	-	235	280	-

Dissipable power according to Italian standard CEI 23-49

## KEY

**LT** = Thermoplastic material

**MV** = Painted metal

**AI** = Stainless steel

LT cabinet type 4: set up with mounting plate and internal door



AI cabinet type 4 (460x670x245 mm)  
blank door



MV cabinet type 4 (460x670x245 mm)  
door with clear marine window





Metal enclosures: stainless steel (AI) and metal 15/10 varnished with epoxy resin-take the same accessories as the (LT) cabinets.

### OPTIONAL ACCESSORIES:

- Lock with Yale key
- Accessory for padlocking (only LT)
- Envelope for documents
- Kit for attaching cabinet to pole
- Ventilation kit
- Metal fixing brackets for MV and AI



LT cabinet fixing brackets, positioned either horizontally or vertically for MV and AI enclosures

Setting up with vertical MCCB



### MODULARITY

The Easy-Box series offers a range of components that are modular and inter-changeable among the different enclosures. Enclosures with the same height or width can be placed above or beside each other, while enclosures of the same width have various components in common - DIN rails, modular plates, panels and accessories.



LT cabinet type 3: set up with 2 DIN rows and half modulex (blank panel 1/2 module).

### TECHNICAL CHARACTERISTICS:

- Protection degree: IP65
- Total insulation according to IEC 60439-1 (EN 60439-1) (LT)
- Self extinguishing: Glow-Wire test 650°C (LT)
- Self extinguishing: UL94 grado V1 (LT)
- Dimensional stability: from -25°C to +60°C
- Resistant to chemicals and weathering
- Impact resistance: IK08 grade door with window, IK10 plain door (according to EN 50102).
- RAL7035 grey



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

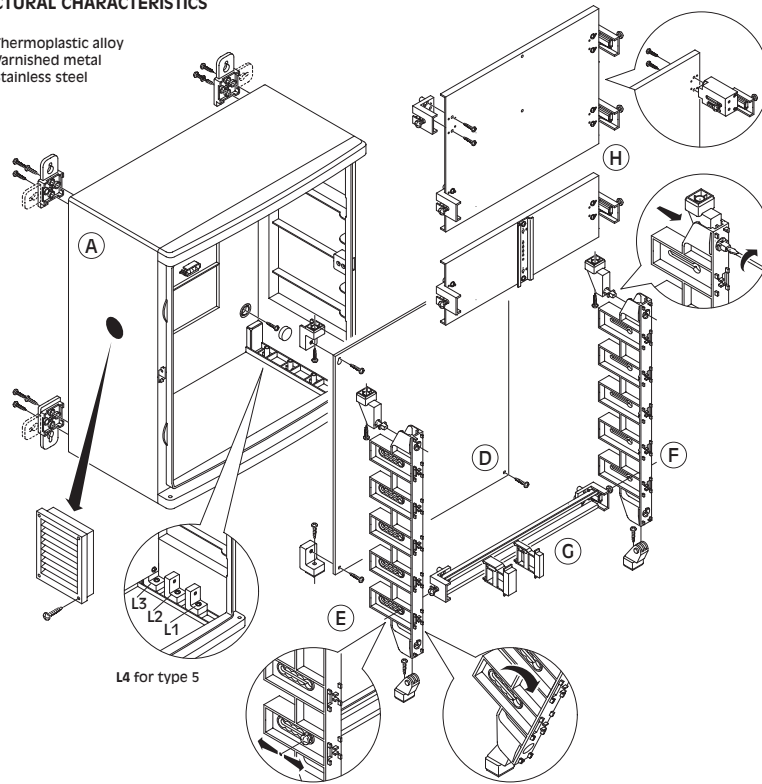


Trunking



## STRUCTURAL CHARACTERISTICS

LT = Thermoplastic alloy  
 MV = Varnished metal  
 AI = Stainless steel



### A Cabinet:

- One piece in engineering plastic with high mechanical resistance (LT) or in painted metal (MV) or in stainless steel (AI)
- Reversible, can be put upside down
- Fixed to wall from the inside or by using brackets
- Smooth walls for lateral and vertical entry of cable glands, tubes or trunking
- Protruding roof that protects the door (LT)
- Depth for attaching chassis and components can be selected from different positions
- Supplied with integral spirit level for easier mounting
- Cable entry opening (MV and AI): Type 1 - 123X65 mm and type 2, 3 and 4 - 223X65 mm

### B Door:

- In engineering plastic, tinted or grey (plain) (LT) or blank varnished metal with marine window (MV) or in blank stainless steel (AI)
- Reversible, can be put upside down
- Easy attachment with a simple operation of snap-on pre-mounted pivots (AI door already mounted) (MV with screws)

- Opens more than 180° (LT) and 100° (MV and AI)
- Lowered handle for opening the door (LT)
- Supplied with mounted triangular lock
- Comes with complete accessories kit of square lock, double bar lock and triple key
- Optional accessory kit available with Yale key lock
- Optional accessory kit available for padlocking (LT)

### C Internal Door:

- Grey engineering plastic (plain)
- Supplied with mounted triangular lock
- Comes with complete accessories kit of square lock, double bar lock and triple key
- Reversible, snaps shut
- Can be leaded
- With supports for attaching to the cabinet at L1 or L2
- Supports can be fixed onto 2 positions a or b

### D Mounting plate:

- In smooth zinc coated steel
- With 4 brackets that can also be mounted on two levels L2 - L3

### E Chassis:

- Made by joining the upright supports with the DIN rails and/or modular plates
- Chassis can be assembled and wired at work bench
- Attaches onto positions L1 - L2 of the cabinet using the brackets supplied
- Horizontally pivoted
- Attached with fast 1/4 turn locking system

### F Upright Support:

- In engineering plastic
- Set up for attachment of DIN rails or modular plates every 1/2 module
- Slotted fixing for positioning of DIN rails at 4 different heights
- Possibility of attaching cable trunking with optional brackets or vertically behind the DIN rails
- Wiring space can be increased by decreasing the number of rows

### G Din Rails:

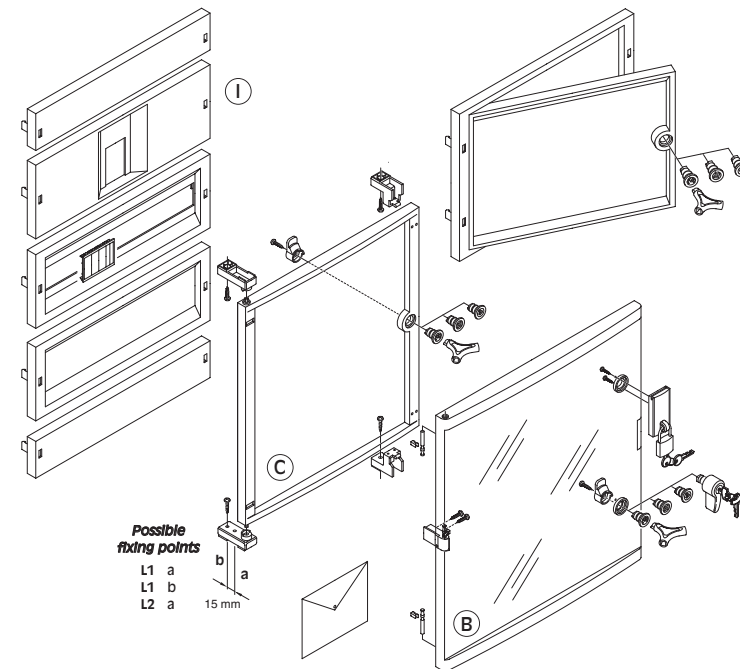
- Metallic rails with DIN profile suitable for snap-on mounting of modular electrical equipment
- Bracket support with screws and nut already prescrewed for faster mounting

### H Modular Plates:

- In zinc coated steel suitable for attaching non modular elements
- Three versions available:
  - 1) smooth plate of 1 module
  - 2) smooth plate of 2 modules
  - 3) plate of 1 module with DIN rail for moulded-case circuit breaker

### I Panels:

- Five types are available:
  - 1) Panel with DIN vent-hole (1 module)
  - 2) Plain panel (1 module)
  - 3) Plain panel (1/2 module)
  - 4) Panel for moulded-case circuit breaker (1 module)
  - 5) Internal door panel, comes with lock (2 modules)
- Easily snapped onto the chassis
- Dismantled using a tool
- Made of engineering plastic



Possible fixing points

L1 a  
 L1 b  
 L2 a

15 mm





## EASYBOX Series Type 5

EASYBOX Series by Scame is completed by the type 5 with dimensions 755x715x345 mm (bxhxd) and with a maximum capacity of 140 Din modules (4 rows of 35 Din modules) (example 3).

Apart from the common innovative features of the EASYBOX Series, the type 5 includes new characteristics as:

- small number of elements as front plates and accessories required in front of a wide number of possible combinations thanks to the standardization of the width with the smaller types hence there are common elements (examples 1 and 2).

- there is the possibility to have more cabling space simply increasing the distance between the Din rails by introducing 75 mm high or 37.5 mm high front plates and obtaining 3 rows of 35 Din modules and different pitch (examples 4, 5, 6).

- it is possible to have two independent compartments inside the enclosure one of which with front plates as with din rail window and the other compartment with door and inner door for various applications as for Busbars distribution. Otherwise it is possible to have front panels (3 or 4 rows of 20 din one side and 12 din on the other) using existing elements of the Series or door and inner door on both compartments.

Another innovative feature is the fully transparent door which gives the possibility to see all the devices inside the enclosure something not possible to see through the common marine window door generally available on the market.

Easybox door is also locked safely at 4 points through 2 locks.

Furthermore the type 5 includes all common characteristics of the EASYBOX series as:

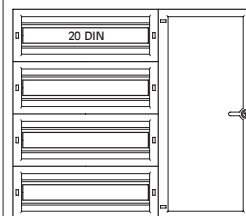
- hinged chassis
- fast mounting of the chassis
- padlockable door
- sealing kit for the door

EASYBOX Series is made in Thermoplastic alloy but it is also available in varnished metal and stainless steel versions, all the three versions use the same components helping to reduce the number of items to be kept in stock.

### INSTALLATION OPTIONS

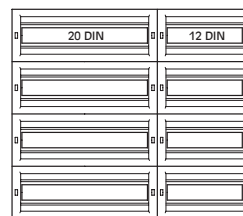
It is possible to vary the distance between the DIN Rails and obtain different versions.

EASYBOX Series - TYPE 5  
Chassis with 4 rows 20 DIN and mounting plate with internal door.



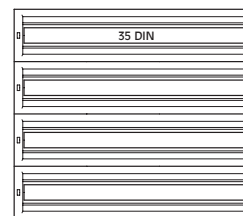
Es. 1

EASYBOX Series - TYPE 5  
Chassis with 4 rows 20 DIN and 4 rows 12 DIN.



Es. 2

EASYBOX Series - TYPE 5  
Chassis with 4 rows 35 DIN.

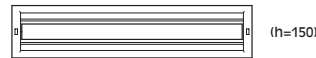


Es. 3

## PANELS

EASYBOX type 5 PANELS, h=150 mm and h=75 mm are fixed to the chassis by 2 1/4 turn screws.

The panels h 37.5 are mounted into the other panels.



PANEL 1 module



PLAIN PANEL 1/2 module

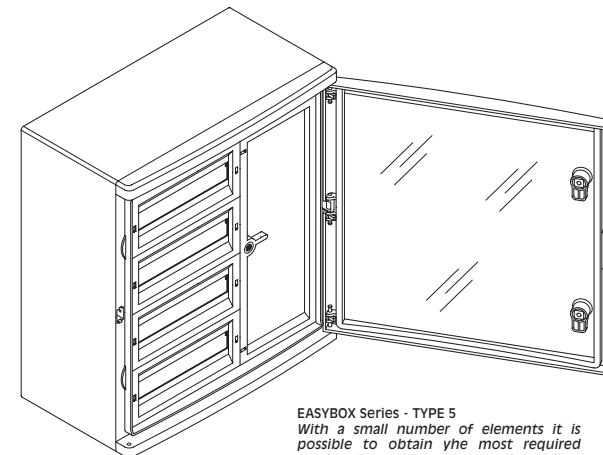


PLAIN PANEL 1/4 module

## MAXIMUM STATIC LOAD (KG)

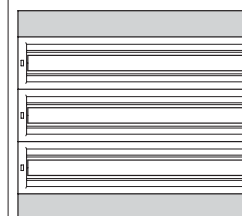
DESCRIPTION	TYPE				
	1	2	3	4	5
Din rail EN 50022	4	6,4	6,4	6,4	8
Modular plate 1 module	4	6,4	6,4	6,4	11
Modular plate 2 modules	8	12	12	12	20
Modular plate 1 module with extension	2	4	4	4	5,6
Modular plate 2 modules with extension	4	8	8	8	11
Mounting plate	12	16	20	24	32
Internal door panel	-	1,6	1,6	1,6	-
Internal door	1,6	2,4	3,2	4	5,6
Door	1,6	2,4	3,2	4	5,6

In conformity with the European Standard EN 50298.



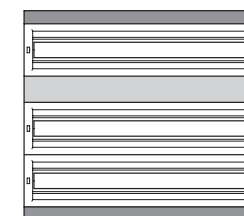
EASYBOX Series - TYPE 5  
With a small number of elements it is possible to obtain the most required combinations with ample space for cabling.

EASYBOX Series - TYPE 5  
Chassis with 3 rows 35 DIN pitch 150mm.



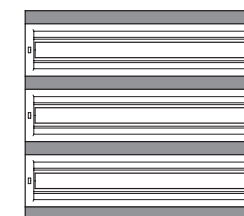
Es. 4

EASYBOX Series - TYPE 5  
Chassis with 3 rows 35 DIN pitch 225/150mm.



Es. 5

EASYBOX Series - TYPE 5  
Chassis with 3 rows 35 DIN pitch 187,5mm.



Es. 6



## WATER-TIGHT CABINETS IP65

Reference standard  
IEC 60670, EN 50298 and CEI 23-48, CEI 23-49  
(Italian standard)

- Dimensions, see page 183

☐ = pack qty.  
LT = Thermoplastic alloy  
MV = Varnished metal  
AI = Stainless steel

Horizontal modularity	Dimensions b x h x d (mm)	Possible formats	
		Variant A	Variant B
<b>M320</b> 12 DIN per row	<b>Type 1</b> 320x370x210 2 rows	1+ 	1/2+ 1+ 1/2 
<b>M460</b> 20 DIN per row	<b>Type 2</b> 460x370x245 2 rows	1+ 	1/2+ 1+ 1/2 
	<b>Type 3</b> 460x520x245 3 rows	1+ 1+ 1+ 	1/2+ 1+ 1+ 1/2 
	<b>Type 4</b> 460x670x245 4 rows	1+ 1+ 1+ 1+ 	1/2+ 1+ 1+ 1+ 1/2 
<b>M750</b> 35 DIN per row	<b>Type 5</b> 755x715x345 4 rows	1+ 1+ 1+ 1+ 	1/2+ 1+ 1+ 1+ 1/2 

## CABINET

BASE	DOOR		
	PLAIN grey	WITH WINDOW tinted (LT) with marine window (MV)	
 LT MV AI ☐	☐ 655.001 0 ☐ 655.011 0 ☐ 655.021 01 (*) 1	☐ 655.001 1 ☐ 655.011 1 - 1	☐ 655.001 2 ☐ 655.011 2 - 1
LT MV AI ☐	☐ 655.002 0 ☐ 655.012 0 ☐ 655.022 01 (*) 1	☐ 655.002 1 ☐ 655.012 1 - 1	☐ 655.002 2 ☐ 655.012 2 - 1
LT MV AI ☐	☐ 655.003 0 ☐ 655.013 0 ☐ 655.023 01 (*) 1	☐ 655.003 1 ☐ 655.013 1 - 1	☐ 655.003 2 ☐ 655.013 2 - 1
LT MV AI ☐	☐ 655.004 0 ☐ 655.014 0 ☐ 655.024 01 (*) 1	☐ 655.004 1 ☐ 655.014 1 - 1	☐ 655.004 2 ☐ 655.014 2 - 1
LT MV AI ☐	☐ 655.005 0 ☐ 655.015 0 ☐ 655.025 01 (*) 1	☐ 655.005 1 ☐ 655.015 1 - 1	☐ 655.005 2 ☐ 655.015 2 - 1

(\*) base supplied with blank door already mounted

## MOUNTING PLATE AND INTERNAL DOOR

MOUNTING PLATE		INTERNAL DOOR	SALITA SBARRE		UPRIGHT
in thermoplastic material A x B x C (mm)	Stainless steel smooth zinc-coated A x B (mm)	Blank Grey	mounting plate A x B x C (mm)	internal door	couple
 655.001 4 267x294x4,5 1/4	 ☐ 655.001 5 267x294 1/4	 ☐ 655.001 6 1/8	-	-	 ☐ 655.001 9 1/8
655.002 4 407x294x4,5 1/4	☐ 655.002 5 407x294 1/4	☐ 655.002 6 1/9	-	-	☐ 655.003 9 1/10
655.003 4 407x444x4,5 1/2	☐ 655.003 5 407x444 1/2	☐ 655.003 6 1/9	-	-	☐ 655.005 9 1/10
655.004 4 407x594x4,5 1/2	☐ 655.004 5 407x594 1/2	☐ 655.004 6 1/9	-	-	☐ 655.005 9 1/10
655.005 4 679x633x4,5 1	655.005 5 679x633 1	655.005 6 1	655.005 50 267x633x2 1	655.005 60 1	1

## CABINET

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

b x h x d = base x height x depth

## WATER-TIGHT CABINETS IP65

Reference standard  
IEC 60670, EN 50298 and CEI 23-48, CEI 23-49  
(Italian standard)

- Dimensions, see page 183

= pack qty.

### CABINET

1 MODULE	1 MODULE	2 MODULES
DIN RAIL with brackets	MODULAR PLATES in metal, with brackets	
655.320 10	655.320 11	655.320 12
1/10	1/8	1/4
655.460 10	655.460 11	655.460 12
1/12	1/8	1/4
655.750 10	655.750 11	655.750 12
1	1	1

### STANDARD PANELS

1 MODULE	1 MODULE	1/2 MODULE	1/4 MODULE	1 MODULE	2 MODULES	
PANEL WITH DIN VENT-HOLE With DIN rail	PLAIN PANEL grey h= 150 mm		half module (2 pieces) h= 75 mm	quarter module (2 pieces) h= 37,5 mm	PANEL FOR MOULDED-CASE CIRCUIT BREAKER includes metal plate with DIN rail	INTERNAL DOOR PANEL lock supplied
655.320 20	655.320 21	655.320 22	-	655.320 24	-	
1/5	1/8	1/10		1/5		
655.460 20	655.460 21	655.460 22	-	655.460 24	655.460 25	
1/4	1/10	1/10		1/4	1/9	
655.750 20	655.750 21	655.750 22 (1 piece)	655.750 23	655.750 24	-	
1	1	1	1	1		

Horizontal modularity	Dimensions b x h x d (mm)	Possible formats	
		Variant A	Variant B
<b>M320</b> 12 DIN per row	<b>Type 1</b> 320x370x210 2 rows	 1+ 24 DIN	 1/2+ 1+ 12 DIN
<b>M460</b> 20 DIN per row	<b>Type 2</b> 460x370x245 2 rows	 1+ 40 DIN	 1/2+ 1+ 20 DIN
	<b>Type 3</b> 460x520x245 3 rows	 1+ 60 DIN	 1/2+ 1+ 40 DIN
	<b>Type 4</b> 460x670x245 4 rows	 1+ 80 DIN	 1/2+ 1+ 60 DIN
<b>M750</b> 35 DIN per row	<b>Type 5</b> 755x715x345 4 rows	 1+ 140 DIN	 1/2+ 1+ 105 DIN

b x h x d = base x height x depth

- Plugs and sockets
- Adaptors
- Domestic cablelets
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

## ACCESSORIES

LT = Thermoplastic alloy  
 MV = Varnished metal  
 AI = Stainless steel

DESCRIPTION	FOR ENCLOSURES	PACK QTY.	CATALOGUE NUMBER
Fixing onto pole max Ø 300mm couple in metal	Type 1	1/3	655.320 90
	Type 2, 3 and 4	1/3	655.460 90
	Type 5	1	655.750 90



DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Yale key kit	Grey	1/10	655.900
	Grey	1/10	655.910
	Transparent	1/10	655.911



DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Accessory kit for padlocking (LT) (padlock not supplied) (not suitable for metal doors)	Grey	1/10	655.920



DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Additional brackets kit	1/10	655.930



DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Ventilation kit - IP54 - 230V-	1	655.950



DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Document holder	1/10	655.960



DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Metal wall/surface mounting brackets (MV and AI) - 4 pieces	1/10	655.970



## DIMENSIONES MV and MV - AI cabinets

\*Dimensions refer to cabinets with marine window; for cabinets with blank panel increase by 6 mm

	Type 1	Type 2	Type 3	Type 4	Type 5
A	314	454	454	454	740
B	370	370	520	670	670
C	274	414	414	414	414
D	302	302	452	602	
E	200	230	230	230	
F*	190	220	220	220	
G	123	223	223	223	

	Type 1	Type 2	Type 3	Type 4	Type 5
A	196	336	336	336	
B	408	408	558	708	
C	348	348	498	648	
D	74	104	104	104	
E	104	134	134	134	
F*	177	192	192	192	
G*	121	136	136	136	
H*	-	102	102	102	

## LT cabinets

	Type 1	Type 2	Type 3	Type 4	Type 5
A	324	464	464	464	755
B	370	370	520	670	714
C	274	414	414	414	685
D	302	302	452	602	600
E	210	245	245	245	345
F	192	222	222	222	310

	Type 1	Type 2	Type 3	Type 4	Type 5
A	364	504	504	504	775
B	271	411	411	411	683
C	214	354	354	354	610
D	410	410	560	710	743
E	316	316	466	616	652
F	190	190	340	490	470
G	120	120	120	120	128
H	72	103	103	103	182
I	90	90	90	90	98
L	102	133	133	133	212
M	166	196	196	196	280
N	125	140	140	140	220
O	-	-	-	-	161
P	83	83	83	83	102
Q	34	34	34	34	47
R	49	49	49	49	62
S	-	105	105	105	105

- Plugs and sockets
- Adaptors
- Domestic cablelets
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking





## JUNCTION BOXES



### GENERAL DESCRIPTION

Made of halogen free (blank sides versions), impact resistant, self-extinguishing thermoplastic material. SCABOX junction boxes are designed for power distribution in outdoor installations and for housing relays, timers, connecting strips, etc.



Cable inlet through cable sleeve or cable gland, grooves on the bottom for fixing terminal strips.



## REFERENCE STANDARDS

### IEC 60670

General requirements for enclosures for accessories for household and similar fixed electrical installations

## VERSIONS

There are four versions available:

- With cable sleeves - IP44 with press-fit cover
- With cable sleeves - IP55 with screw-down cover
- With blank sides - IP56 with screw-down cover
- With blank sides - IP56 higher box with screw-down cover

The cable sleeve versions already have cable inlet holes, making installation easier.

Multiple-size cable sleeve:  
 PG16 - Ø 23 (for conduit or cable Ø 4.5 - Ø 14 - Ø 18 mm)  
 PG21 - Ø 29 (for conduit or cable Ø 4.5 - Ø 14 - Ø 23 mm)  
 PG29 - Ø 38 (for conduit or cable Ø 4.5 - Ø 18 - Ø 30 mm)  
 PG36 - Ø 48 (for conduit or cable Ø 4 - Ø 18 - Ø 30 - Ø 39 mm)



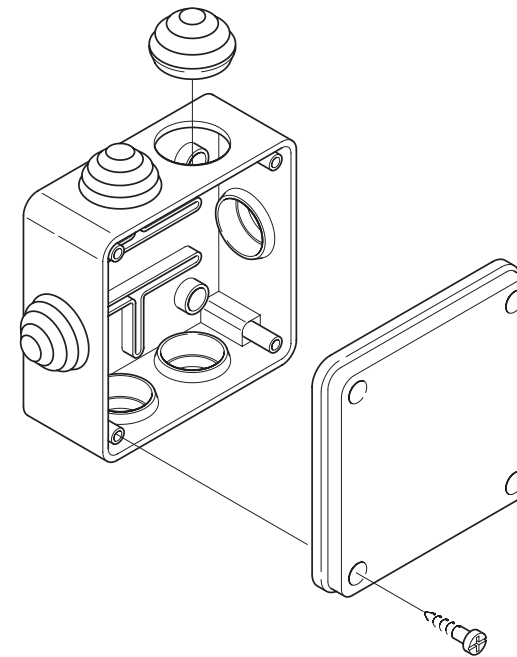
## TECHNICAL CHARACTERISTICS

The materials used to produce the SCABOX Series stand out for their resistance to mechanical stresses and weathering. In particular:

- Anti-impact, self-extinguishing, halogen free engineering plastic (blank sides versions)
- RAL 7035 grey, stabilised, ensuring no migration of colour
- Operating temperature: -25 +60°C
- Total insulation according to EN 60439-1 ☐
- Stainless steel screws highly resistant to mechanical stresses and corrosion

## STRUCTURAL CHARACTERISTICS

- **Captive seal** already in place. Provides perfect fit even after repeated opening and closing.
- **Captive closing screws** made of corrosion-proof stainless steel and highly resistant to mechanical stresses. Double-thread screws for fast screwing, slotted and cross-recessed head.
- **Multiple-size cable sleeve.** With the cable opening closed has a protection degree of IP55. Three types for PG16-21-29 (diameters of 23-29-38 mm).
- **Grooved bottom** on the inside of the box for fastening appliances and accessories by means of self-tapping screws.
- **Surface mounting** from the inside with pass-through screws or from the rear (only for 190X140, 240X190, 300X220 mm).
- **Draining holes** on all sides.



SCABOX Series  
 Surface mounting junction box 100X100 mm  
 50 mm high box with IP55 cable sleeves  
 Screw-closed cover.





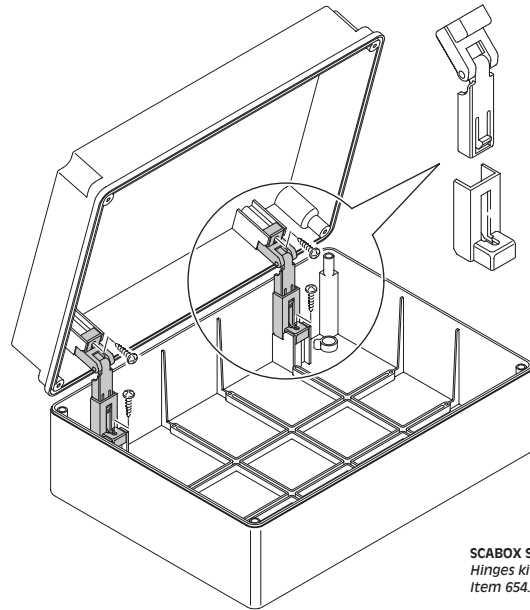
## HINGES KIT

An interesting novelty for the SCABOX Series, a practical hinge kit is available that permits the book-like opening of the cover while keeping it integral with the base.

The kit can be optionally applied inside the casing in a quick and simple manner; thus the SCABOX acquires greater functionality – perfect in the installation phase, during the wiring operations, and extremely practical for the subsequent phases of maintenance and inspection, since it keeps the cover supported and hinged to the base.

Pressing lightly on the small lever of the hinge, it is possible to remove the cover from the base and to thus separate the two elements.

With a simple locking manoeuvre it is possible to eventually replace the cover to the base.



SCABOX Series  
Hinges kit (3 pieces)  
Item 654.0085



## SURFACE MOUNTING JUNCTION BOXES

### Reference standard: IEC 60670

- Made of self-extinguishing engineering plastic
- RAL 7035 grey
- Max. operating temperatures: 60°C
- Total insulation to EN 60439-1 ☐ (use with specially designed screw cover caps art. 654.0080)

### BOX WITH CABLE SLEEVES - IP44

- With press-fit cover

INTERNAL DIMENSIONS (A x B x h) mm	NO. OF INLETS FOR	FASTENING SCREWS	PACK QTY.	CATALOGUE NUMBER
Ø 65 x 35	4 ø 23 mm PG 16	2	4/100	☎ 680.001
Ø 80 x 40	4 ø 23 mm PG 16	2	4/100	☎ 680.002
80 x 80 x 40	6 ø 23 mm PG 16	2	4/60	☎ 680.003

### BOX WITH CABLE SLEEVES - IP55

- With screw-down cover

INTERNAL DIMENSIONS (A x B x h) mm	NO. OF INLETS FOR	FASTENING SCREWS	PACK QTY.	CATALOGUE NUMBER
100 x 100 x 50	6 ø 29mm PG 21	4	1/48	☎ 685.004
120 x 80 x 50	6 ø 29mm PG 21	4	1/54	☎ 685.005
150 x 110 x 70	10 ø 29mm PG 21 (K1)	4	1/40	☎ 685.006
190 x 140 x 70	10 ø 38mm PG 29 (K1)	4	1/24	☎ 685.007
240 x 190 x 90	12 ø 38mm PG 29 (K1) ▲	4	1/12	☎ 685.008
300 x 220 x 120	12 ø 38mm PG 29 (K1) ▲	4	1/6	☎ 685.009
380 x 300 x 120	12 ø 48mm PG 36 (K1) ▲	4	1/4	☎ 685.010
460 x 380 x 130	14 ø 48mm PG 36 (K2) ▲	6	1	☎ 685.011

▲ Suitable for hinges mounting

(K1) It is possible to use the wall mounting brackets kit item 654.0021

(K2) It is possible to use the wall mounting brackets kit item 654.0023



- Plugs and sockets
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- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

## SURFACE MOUNTING JUNCTION BOXES

Reference standards: IEC 60670

- Made of self-extinguishing engineering plastic
- RAL 7035 grey
- Max. operating temperatures: 60°C
- Total insulation to EN 60439-1 (use with specially designed screw cover caps art. 654.0080)

### BOX WITH BLANK SIDES - IP56

- With screw-down cover

INTERNAL DIMENSIONS (A x B x h) mm	FASTENING SCREWS	PACK QTY.	CATALOGUE NUMBER	
			blank cover	clear cover
100 x 100 x 50	4	1/40	686.204	686.224
120 x 80 x 50	4	1/42	686.205	686.225
150 x 110 x 70 (K1)	4	1/48	686.206	686.226
190 x 140 x 70 (K1)	4	1/30	686.207	686.227
240 x 190 x 90 (K1) ▲	4	1/16	686.208	686.228
300 x 220 x 120 (K1) ▲	4	1/8	686.209	686.229
380 x 300 x 120 (K1) ▲	4	1/4	686.210	686.230
452 x 320 x 130 (K2) ▲	6	1	686.211	686.231

▲ Suitable for hinges mounting item 654.0085

(K1) It is possible to use the wall mounting brackets kit item 654.0021

(K2) It is possible to use the wall mounting brackets kit item 654.0023

### HIGHER BOX WITH BLANK SIDES - IP56

- Screw-down cover

INTERNAL DIMENSIONS (A x B x h) mm	FASTENING SCREWS	PACK QTY.	CATALOGUE NUMBER	
			blank cover	clear
100 x 100 x 80	4	1/24	686.404	686.424
240 x 190 x 125 ▲	4	1/6	686.408	686.428
300 x 220 x 170 ▲	4	1/6	686.409	686.429
380 x 300 x 170 (K1) ▲	4	1/3	686.410	686.430
452 x 380 x 180 (K2) ▲	6	1	686.411	686.431

▲ Suitable for hinges mounting item 654.0085

(K1) It is possible to use the wall mounting brackets kit item 654.0021

(K2) It is possible to use the wall mounting brackets kit item 654.0023



## ACCESSORIES

### MOUNTING PLATE

BOX (mm)	DIMENSIONS (A x B) mm	FASTENING SCREWS	PACK QTY	CATALOGUE NUMBER
190 x 140	176 x 126 x 1,5	4	1	654.0787
240 x 190	226 x 176 x 1,5	4	1	654.0788
300 x 220	284 x 173 x 1,5	4	1	654.0789
380 x 300	358 x 252 x 1,5	4	1	654.0790
452 x 372	414 x 318 x 1,5	4	1	654.0791



### SEALING CAPS

- For providing total insulation e according to EN 60439-1

DESCRIPTION	PACK QTY	CATALOGUE NUMBER
N° 12 Sealing caps	10/100	654.0080



### SEALING KIT

BOX (mm)	PACK QTY	CATALOGUE NUMBER
(190 x 140) - (240 x 190) - (300 x 220) - (380 x 300)	25	654.0032



### HINGES KIT

DESCRIPTION	PACK QTY	CATALOGUE NUMBER
Hinges kit (3 pieces)	1/20	654.0085



### WALL MOUNTING BRACKETS KIT

DESCRIPTION	COLOUR	PACK QTY	CATALOGUE NUMBER
Wall mounting brackets kit	K1 (4 pieces)	10	654.0021
Wall mounting brackets kit	K2 (4 pieces)	10/100	654.0023





## JUNCTION BOXES FOR ELECTRICAL INSTALLATIONS



### GENERAL DESCRIPTION

Two new ranges of connection boxes for electrical installations are available in 6 different sizes. Manufactured in thermo-plastic, shock-resistant and self-extinguishing material, series CUBIK boxes are weatherproof and ideal for housing small equipment.



## REFERENCE STANDARDS

### IEC 60670

Boxes and enclosure for electrical accessories for household and similar fixed electrical installation

### VERSIONS

**CUBIK 650 Series – Glow wire 650°C halogen free:**  
Colour: grey RAL 7035

- With fairleads and release cover
- With fairleads and 1/4 -turn screw cover
- With smooth walls and 1/4 -turn screw cover

**CUBIK 960 Series – Glow wire 960°C:**  
Colour: grey RAL 7035

- With fairleads and release cover
- With fairleads and 1/4 -turn screw cover
- With smooth walls and 1/4 -turn screw cover

Colour: grey RAL 7035 cover, red base

- With fairleads and release cover
- With fairleads and 1/4 -turn screw cover
- With smooth walls and 1/4 -turn screw cover

### TECHNICAL FEATURES

- Protection degree: IP55.
- Operating temperature: -25°C + 60°C.
- Colour: grey RAL 7035.
- Release or 1/4 -turn screw cover.
- Co-printed gasket in the versions provided with screws.
- 5-step fairlead.
- Preset for DIN rail or terminal fixing.
- Fixing on piece with threaded tang for versions with release cover.
- Fixing system out of cabling area
- Numbered outputs to make the identification of circuits easier.
- Possibility to write on cover (inside) to make the identification of circuits easier.
- Covers for total insulation  provided in the kit.
- Mechanical resistance according to EN 50102 standard at 20°C: IK07

*Glow wire 960°C versions (also in red) are identifiable by the symbol marked on the external side.*

**SCAME**

IP55

688.204.R



## INTERNAL FIXING SYSTEM

Connecting boxes up to 80x80x40mm dimensions feature two internal knock out fixing slots.

These are screwed to existing fixings on the wall. The fixings feature an external M7 threaded pin which is designed to fit with the base of the boxes.

Connecting boxes over 100x100x50mm dimensions feature four internal knock out fixing slots.



## BACK FIXING SYSTEM

Versions up to 80x80x40mm dimensions can also be screwed to existing fixings on the wall. The fixings feature an external M7 threaded pin, which is designed to fit with the base of boxes.

In addition, specific reeding is on the backside so to avoid any accidental rotational movement of the box.



## EXTERNAL FIXING SYSTEM

Connecting boxes above 100x100x50mm dimensions can also be wall mounted by four fixing slots featured outside the cabling area to avoid piercing the box.



## INSULATING CAPS

All versions are provided with caps for a complete insulating effect.

## CLOSING

The cover is available either as a pressure-type for the small boxes or closed with four 1/4 - turn screws for the larger boxes.

The 1/4 - turn screw versions feature 0-1 markings indicating OPEN-CLOSE.

A gasket within the connecting box ensures that the base and cover are joined effectively.



Plugs and sockets



Adaptors



Domestic cabletrays



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



### CAPACITY

Series CUBIK connector blocks are very spacious; raised walls increase the internal room, making any cabling operation easier.

### CABLES SLEEVES

Cable sleeve provided with the kit consist of 5 different levels allowing the identification of pipe and wire diameters, making precise cut for cable easier and cable positioning quicker.

Versions up to 80x80x40mm dimensions are equipped with 23mm-diameter cable sleeve that fit 5, 8, 12, 16 or 20mm-diameter wires or pipes; on the contrary, versions up to 100x100x50mm dimensions are provided with 29mm-diameter cable sleeve that fit 5, 12, 16, 20 and 25mm diameters.

The cable sleeve completely fit the pipe/wire in a reliable way.

### CAPTIVE COVER

This cover has been designed for all versions with a support cable to retain the cover.



## CUBIK SERIES

Reference standards: IEC 60670

### VERSION WITH CABLE SLEEVES

- Colour: grey RAL 7035

COVER	SIZES	INPUTS	PACK QTY.	CATALOGUE NUMBER Glow wire 650°C	CATALOGUE NUMBER Glow wire 960°C
Release type	ø65x40mm	4 x ø23mm	4/100	⊕ 687.001*	⊕ 688.001*
	ø80x40mm	4 x ø23mm	4/100	⊕ 687.002*	⊕ 688.002*
	80x80x40mm	7 x ø23mm	4/60	⊕ 687.003*	⊕ 688.003*
4 1/4 -turn screws	100x100x50mm	7 x ø29mm	1/48	⊕ 687.004	⊕ 688.004
	120x80x50mm	6 x ø29mm	1/54	⊕ 687.005	⊕ 688.005
	150x110x70mm	10 x ø29mm	1/40	⊕ 687.006	⊕ 688.006

\* Suitable for the threaded insert item 654.0022

- Colour: grey RAL 7035 cover, red base

COVER	SIZES	INPUTS	PACK QTY.	CATALOGUE NUMBER Glow wire 650°C	CATALOGUE NUMBER Glow wire 960°C
Release type	80x80x40mm	7 x ø23mm	4/60	-	⊕ 688.003.R*
4 1/4 -turn screws	100x100x50mm	7 x ø29mm	1/48	-	⊕ 688.004.R
	120x80x50mm	6 x ø29mm	1/54	-	⊕ 688.005.R

\* Suitable for the threaded insert item 654.0022

### VERSION WITH BLANK SIDES

- Colour: grey RAL 7035

COVER	SIZES	PACK QTY.	CATALOGUE NUMBER Glow wire 650°C	CATALOGUE NUMBER Glow wire 960°C
4 1/4 -turn screws	100x100x50mm	1/40	⊕ 687.204	⊕ 688.204
	120x80x50mm	1/42	⊕ 687.205	⊕ 688.205
	150x110x70mm	1/48	⊕ 687.206	⊕ 688.206

- Colour: grey RAL 7035 cover, red base

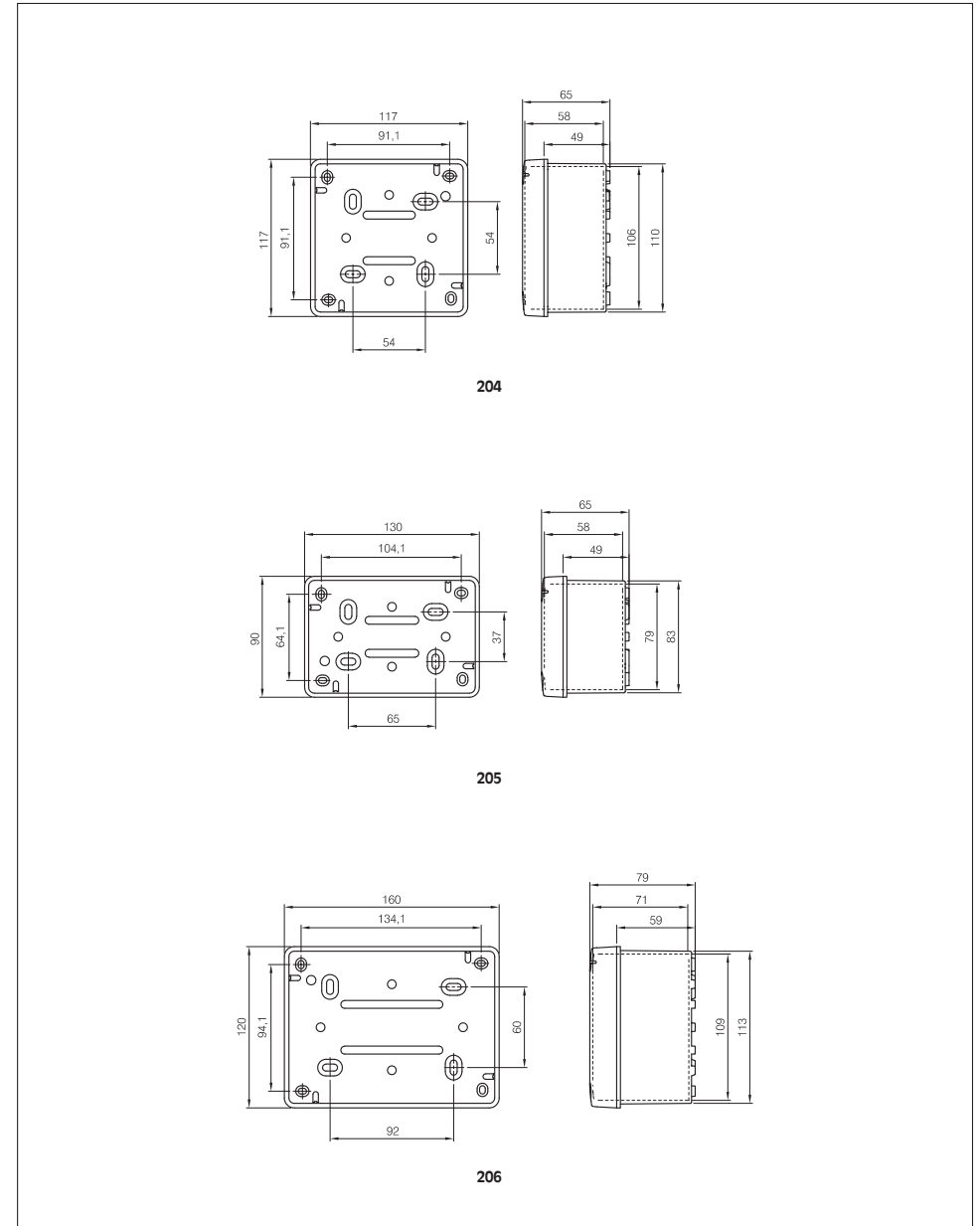
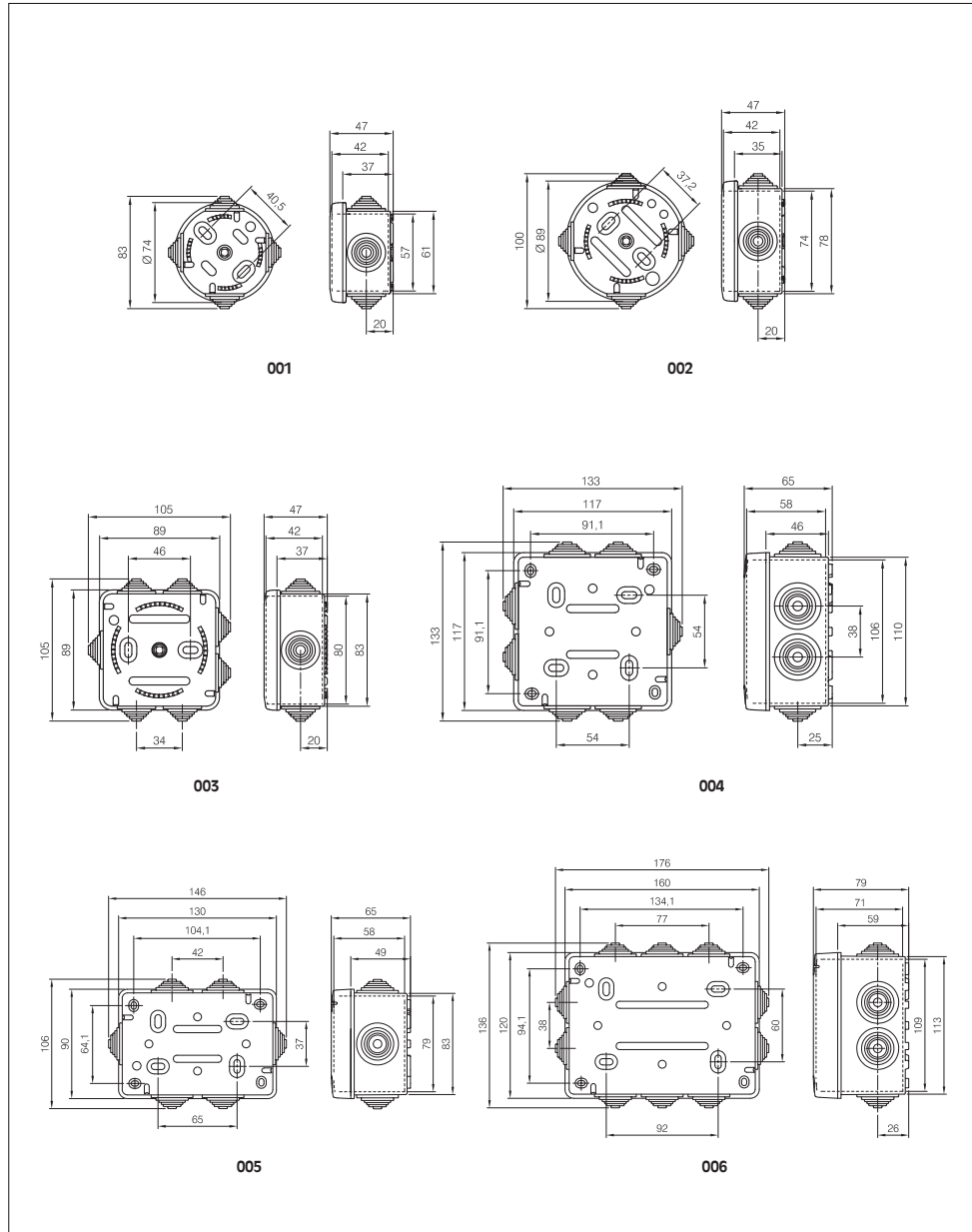
COVER	SIZES	PACK QTY.	CATALOGUE NUMBER Glow wire 650°C	CATALOGUE NUMBER Glow wire 960°C
4 1/4 -turn screws	100x100x50mm	1/40	-	⊕ 688.204.R
	120x80x50mm	1/42	-	⊕ 688.205.R

### ACCESSORIES

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Threaded insert for CUBIK series	100	654.0022



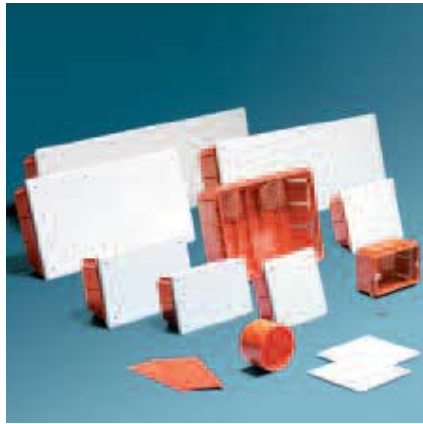
## DIMENSIONS



- Plugs and sockets
- Adaptors
- Domestic cablereels
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



## FLUSH MOUNTING BOXES



### GENERAL

The flush mounting boxes WBOX Series are manufactured in high-resistance technopolymer and used for main and secondary connections for industrial, service and household uses.

WBOX Series allow Scame to offer a wide range of accessories and spare parts, such as covers, protective covers and partitions that are available in different sizes.



## REFERENCE STANDARDS

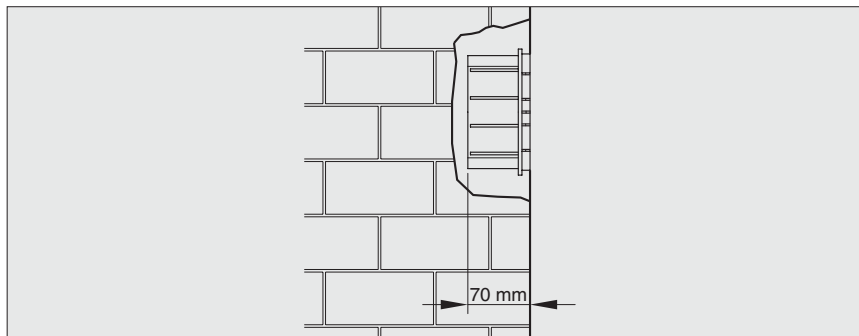
### CEI 23-48

Enclosures for equipment used in fixed electric installations for homes or similar expected use.  
Part I : General Prescriptions

### TECHNICAL FEATURES

- Made in high-resistance technopolymer.
- Inside partitions, which allow subdividing the electric circuits.
- High-resistance white-coloured covers.

## FLUSH MOUNTING INSTALLATION



## FLUSH MOUNTING BOXES

### ROUND FLUSH MOUNTING BOX

- Protection degree: IP40 (with relative cover)
- Provided without cover and screw

DESCRIPTION	PACK. QTY.	CATALOGUE NUMBER
Ø 65 mm	500	875.4201

### COVERS

- Supplied as spare parts

DESCRIPTION	FOR BOXES (mm)	PACK. QTY.	CATALOGUE NUMBER
Screw claw fixing	Ø 65 mm	50/500	875.4501
	Ø 80 mm	40/400	875.4502

### FLUSH MOUNTING PHONE BOX

- Provided with cover and screw

DIMENSIONS (mm)	COLOUR	PACK. QTY.	CATALOGUE NUMBER
70x70 mm	ivory	12/60	875.4301

### RECTANGULAR FLUSH MOUNTING BOX

- Provided without cover and screw

MODULES	DISTANCE BETWEEN AXES FOR FIXING (mm)	PACK. QTY.	CATALOGUE NUMBER
3 modules	83,5	6/300	875.4303

### SCREW COVER

- Supplied as spare parts

DESCRIPTION	PACK. QTY.	CATALOGUE NUMBER
Screw blind cover for 3 modules flush mounting box	12/72	180.692

### PROTECTIVE COVER

- Release installation

DESCRIPTION	PACK. QTY.	CATALOGUE NUMBER
For 3 modules flush mounting box	120	875.4603



## FLUSH JUNCTION BOXES

- Provided complete with box, cover and screws.

DIMENSIONS (mm)	COMPARTMENTS		PACK. QTY.	CATALOGUE NUMBER
92x92x45	1	-	1/170	875.4410
118x96x50	1	-	1/120	875.4411
153x98x70	1	-	1/70	875.4412
160x130x70	1	-	1/44	875.4413
196x152x70	2	Accept separator 152*	1/40	875.4414
294x152x70	3	Accept separator 152*	1/24	875.4415
392x152x70	4	Accept separator 152*	1/20	875.4416
480x160x70	3	Accept separator 160*	1/12	875.4417

\* Provided without separator

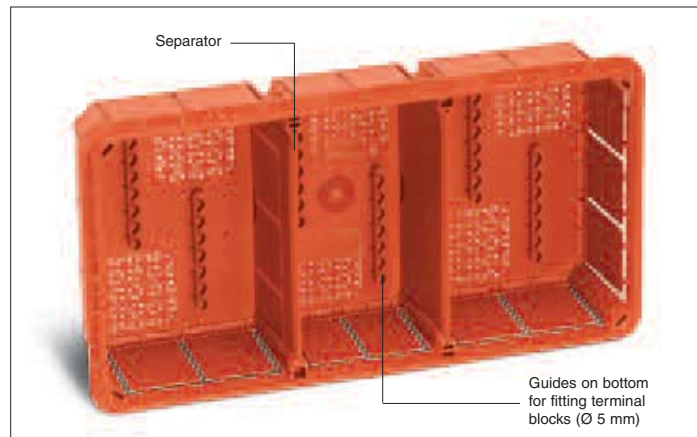
## SEPARATORS

- To divide electric circuits

DESCRIPTION	DIMENSIONS	PACK. QTY.	CATALOGUE NUMBER
Separator 152	152 mm	25/200	875.4490
Separator 160	160 mm	25/200	875.4491



### FLUSH JUNCTION BOX 294X152X70 mm (3 COMPARTMENTS)



## COVERS

- Supplied as spare parts

DESCRIPTION	BOX (mm)	PACK. QTY.	CATALOGUE NUMBER
Cover without screws	92x92	5/100	875.4510
	118x96	5/160	875.4511
	153x98	5/140	875.4512
	160x130	5/80	875.4513
	196x152	5/60	875.4514
	294x152	2/40	875.4515
	392x152	2/30	875.4516
	480x160	2/24	875.4517

Provided without screws

## SCREWS FOR COVER

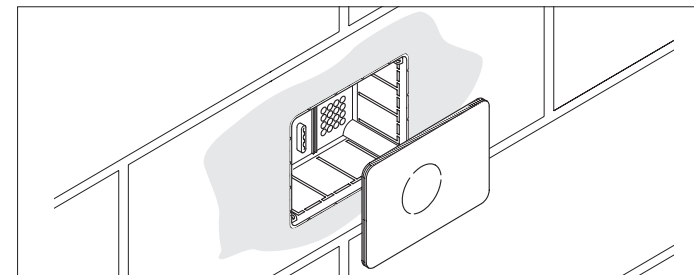
DESCRIPTION	DIMENSIONS (mm)	PACK. QTY.	CATALOGUE NUMBER
20 screw packs	3x19	1/120	875.4500

## PROTECTIVE COVER

- Release installation

DESCRIPTION	BOX (mm)	PACK. QTY.	CATALOGUE NUMBER
In plasticised carton	92x92	5/100	875.4610
	118x96	5/160	875.4611
	153x98	5/140	875.4612
	160x130	5/80	875.4613
	196x152	5/60	875.4614
	294x152	2/40	875.4615
	392x152	2/30	875.4616
	480x160	2/24	875.4617

\* For 3-module boxes item 875.4303



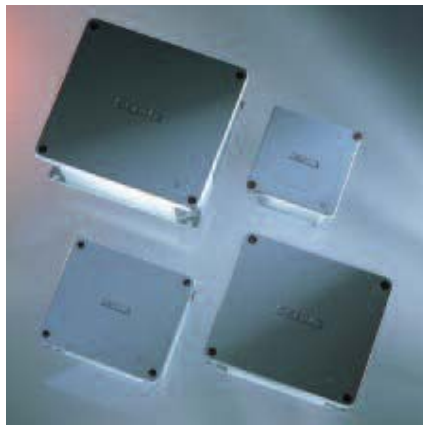
The protective cover has been designed so to protect the inside of the connector blocks during any building and painting operation.







## ALUMINIUM JUNCTION BOXES - IP66



### GENERAL DESCRIPTION

With its ALUBOX series Scame is offering a range of metal products sure to satisfy specific installation requirements in situations that demand a robust product made in aluminium.

With its excellent mechanical resistance and the strength to counter climatic and environmental stresses, the ALUBOX series is well suited to harsh environments due to the nature of the industry - heavy industry installations, machine installations, for industrial automation, for thermal, chemical and petrol chemical plants event outside. Not suitable for particularly salty environments. For any inquiries concerning special application, please contact scame technical service.

## INTERNATIONAL STANDARD

### IEC 60670

Boxes and enclosure for electrical accessories for household and similar fixed electrical installation

### TECHNICAL CHARACTERISTICS

Enclosures and covers are die-cast in aluminium alloy UNI EN 1706, supplied with blank walls and cover on, with screws for attaching the cover and for earthing; protection degree of assembled items: IP66. The outside of the enclosure is varnished giving an attractive appearance, while the inside has been left untreated to guarantee the electrical continuity. Perforated zinc coated steel mounting plates can be attached to the enclosures, they are used for attaching equipment, terminals, etc.

### CARATTERISTICHE COSTRUTTIVE

- Wall mounting die-cast aluminium enclosures
- External surface treatment: varnish with grey epoxy resin.
- Captive seal in expanded EPDM, already mounted in place on the cover
- Stainless steel screws for closing cover with flat screwdriver slot
- Earthing screws on the base and on the cover, in zinc-coated steel (base earthing - in two corners)
- Mounting plates in zinc-coated steel (kit with 4 screws for fixing them to the enclosure)
- Fixing to wall by brackets incorporated in the enclosure base
- Every box is secured with a plastic strap



Enclosures and covers in aluminium alloy with blank walls and covered.



Holding seal in expanded EPDM, already mounted in place on the cover



Fixing to wall by brackets incorporated in the enclosure base

## ALUMINIUM JUNCTION BOXES

Reference Standard: IEC 60670

### ENCLOSURES - IP66

- Enclosure and cover in die-cast aluminium
- Externally varnished
- Come with stainless steel screws for attaching cover and self-tapping zinc-coated steel screws for earthing the enclosure and cover

DIMENSIONS (mm)	SCREWS FOR ATTACHING COVER	EARTHING SCREWS	WEIGHT (kg)	PACK QTY.	CATALOGUE NUMBER
100x100x59	∩ n°2 M5x10mm	n°1 M4x6	0,255	1/32	653.00
140x115x60	∩ n°4 M5x16mm	n°1 M4x6	0,400	1/24	653.01
166x142x64	∩ n°4 M5x16mm	n°1 M4x6	0,585	1/16	653.02
192x168x80	∩ n°4 M5x16mm	n°1 M4x6	0,870	1/12	653.03
253x217x93	∩ n°4 M6x20mm	n°1 M4x6	1,760	1/6	653.04
314x264x122	∩ n°4 M6x20mm	n°1 M4x6	2,880	1/2	653.05
410x315x150	∩ n°4 M6x20mm	n°1 M4x6	6,500	1	653.07

∩ = counter-sunk head screw ∩ = flat head screw

### MOUNTING PLATES

- Zinc-coated steel plate
- Come with zinc-coated steel self-tapping screws for attaching the plate

FOR ENCLOSURE (mm)	SCREWS FOR ATTACHING PLATE	THICKNESS	WEIGHT (kg)	PACK QTY.	CATALOGUE NUMBER
100x100x56	-	-	-	-	-
140x115x60	n°4 M4x6	1,5	-	1/40	653.011
166x142x64	n°4 M4x6	1,5	-	1/20	653.012
192x168x80	n°4 M4x6	1,5	-	1/20	653.013
253x217x93	n°4 M4x6	1,5	-	1/10	653.014
314x264x122	n°4 M4x6	1,5	-	1/10	653.015
410x315x150	n°4 M4x6	2	0,770	5	653.017

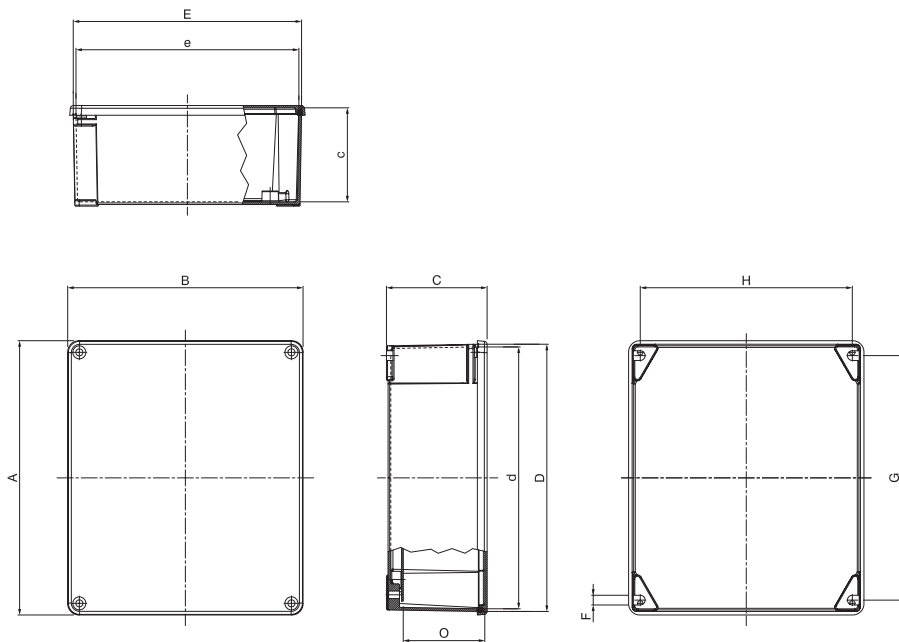
### DIN RAIL KIT

- To fix in diagonal way

FOR ENCLOSURE (mm)	PACK QTY.	CATALOGUE NUMBER
100x100x56	1	653.020
140x115x60	1	653.021
166x142x64	1	653.022
192x168x80	1	653.023
253x217x93	1	653.024
314x264x122	1	653.025
410x315x150	1	653.027

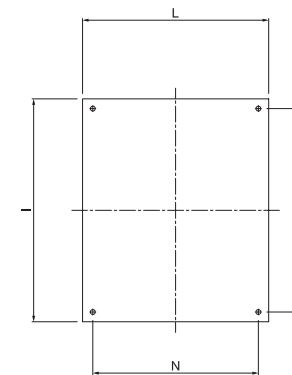


## ENCLOSURES



Catalogue number	Pack. qty.	External dimensions (with cover)			External box dimensions		Internal dimensions (with cover)			Surface mounting points			Useful height
		A mm	B mm	C mm	D mm	E mm	c mm	d mm	e mm	F mm	G mm	H mm	
653.00	32	100	100	59	94	94	53	90	90	6	88	80	x
653.01	24	140	115	60	134	109	55	130	104	6	120	100	45
653.02	16	166	142	64	160	136	58	156	132	7,5	144	125	48
653.03	12	192	168	80	185	161	74	180	156	6	168	149	64
653.04	6	253	217	93	247	211	85	242	206	9	226	196	75
653.05	2	314	264	122	305	255	114	299	249	9	275	236	103
653.07	1	410	315	153	400	305	144	393	298	9	367	283	127

## MOUNTING PLATES



Catalogue number	Pack qty.	Enclosure	I mm	L mm	M mm	N mm
653.011	1	653.01	122	97	107	66
653.012	1	653.02	147	123	121	98
653.013	1	653.03	165	124	153	112
653.014	1	653.04	206	172	188	153
653.015	1	653.05	254	210	238	198
653.017	1	653.07	349	260	333	248

- Plugs and sockets
- Adaptors
- Domestic cable reets
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reets
- Accessories
- Wire connectors
- Conduits
- Trunking

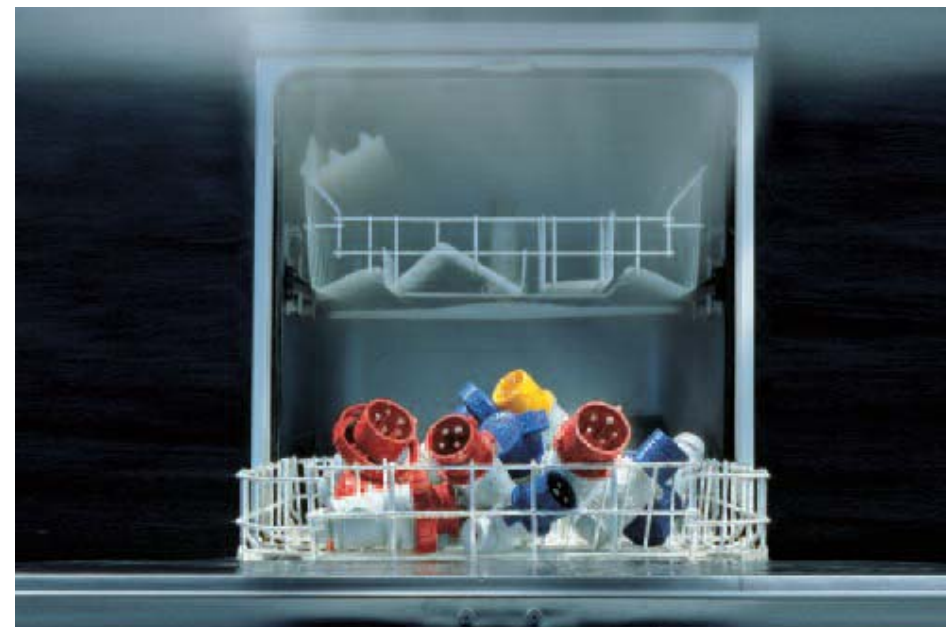
### The quality control system



Conformity to ISO 9000 standards in all phases of production.



## PLUGS AND SOCKETS FOR INDUSTRIAL APPLICATIONS



LIBERA Series  
EUREKA Series  
EUREKA-HD Series  
IEC309 Series  
Accessories for plugs and sockets





## INDUSTRIAL PLUGS AND SOCKETS



### GENERAL DESCRIPTION

For years SCAME has been offering a wide range of high-quality industrial plugs and sockets complying with EN 60309-1 and EN 60309-2 European standards, gaining a leading position in the domestic and export markets.

SCAME's industrial plugs and sockets are reliable, robust, easy to wire and provide outstanding resistance to weathering and to chemicals. All of which assures safe operation, even in the most adverse environmental conditions.

The plugs and sockets for industrial applications comply with European standards EN 60309-1 (Part 1: General requirements) and EN 60309-2 (Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories), which are equivalent to international standards IEC 60309-1 and IEC 60309-2.

These standards govern appliances with rated operating voltage not exceeding 690 V, 500 Hz and rated current not exceeding 125 A, and are mainly designed for application in the manufacturing and service industry, on building sites and similar uses.

The main purpose of the standards is to prevent accidental or deliberate mismatching of plugs and connections which are not compatible in terms of voltage, current, frequency, polarity and type of use, which might therefore cause personal harm as well as damage to the electric appliances which they connect.



## REFERENCE STANDARDS

### European standard EN 60309-1 International standard IEC 60309-1

Plugs, socket-outlets and couplers for industrial purposes  
Part 1: General requirements

### European standard EN 60309-2 International standard IEC 60309-2

Plugs, socket-outlets and couplers for industrial purposes  
Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories.

## AVAILABLE TYPES

This range is provided with many types of movable and fixed sockets and plugs. They consists of four complementary series:



### LIBERA Series

it includes connectors for 16A and 32A electric carriers in compliance with the updated regulations promoted by CIVES.



### EUREKA Series

it includes 16A and 32A sockets IP44 & IP67 and is characterised by some technical and innovative solutions that make wiring times shorter.



### EUREKA-HD Series

it includes Heavy Duty, 16A to 125A plugs and sockets IP44 and IP66 and IP67 for the American and EU markets.



### IEC309 Series

it includes 16A to 125A plugs and sockets IP44 and IP67 and so many versions suitable for matching any installation requirement.

## DEFINITIONS

### Plug and socket outlet

a device for the frequent coupling between a flexible cable and an electric circuit; it consists of a socket-outlet and a plug.

### Socket-outlet

the part designed to be connected to the electric circuit.

### Plug

the part fixed or designed to be fixed to the end of a flexible cable, which is attached to an appliance or to a connector.

### Cable coupler

a device for the frequent coupling between two flexible cables; it consists of a connector and a plug.

### Connector

the part fixed or designed to be fixed to the end of a flexible supply cable.

### Appliance coupler

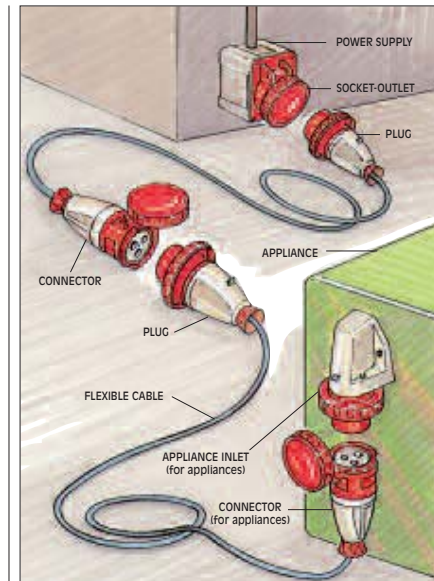
A device for the frequent coupling between a flexible cable and the appliance, it consists of a connector and an appliance inlet.

### Appliance inlet

the part built into or fastened to the appliance, or designed to be fastened to it.

### Flexible cable extension

a flexible cable with a connector at one end and a plug at the other.



**Contact pin:** a component which establishes electric contact in plugs; it is manufactured from a solid brass bar and is nickel-plated to ensure it withstands corrosion and abrasion.



**Contact tube:** a component which establishes electrical contact in sockets; a special elastic spring ensures perfect contact even after repeated plugging-in.

## PRACTICAL ADVICE

Installation must comply with regulations in force governing electric circuits:

- ❖ The cable ends to be fitted into the terminals of the plugs and sockets must be carefully prepared to ensure that the requisite clearance is observed.
- ❖ Tighten the screws of the terminals to avoid overheating. Loose screws might cause fire hazards or damage to the cables.
- ❖ Inspection and replacement of plugs and sockets should be carried out only by suitably qualified personnel.
- ❖ Replace any plugs or sockets that show signs of damage (eg. burn marks). Plugs and sockets should be checked regularly, especially at the cable connection points.
- ❖ Plugs or sockets which have suffered impact or shock of any kind should be checked carefully, even if there are no visible signs of damage.





## MAIN STANDARD REQUIREMENTS

The standards which govern the use of industrial plugs and sockets both for alternating current (frequency up to 500 Hz) and for direct current, distinguish the two categories by operating voltage:

- **Extra-Low Voltage** plugs and sockets with operating voltage up to 50 V
  - **Low Voltage** plugs and sockets with operating voltage above 50 V and up to 690 V
- Executions with 2-3-4-5 contacts and rated current carrying capacities of 16-32-63-125 A are considered. Each application requires a specific execution which differs from all others and built-in obstacles so as to make it impossible to insert a plug into any other socket than its matching one in terms of current carrying capacity, voltage, frequency, number of contacts and type of application.

### Low voltage >50V

In low voltage > 50 V versions, the obstacle is provided by two elements:

- a keyway (on the socket) with a matching key (on the plug)
- a larger earth contact than the other contacts, situated in different clock-face positions depending on the characteristics of use.

When the socket is viewed from the front, the clock-face position (h) of the earth contact is found by taking as a reference the keyway, which is always situated at 6 o'clock.

### Extra-Low voltage <50V

In extra-low voltage < 50 V versions without earth contact, the obstacle is provided by two references:

- the major consists of a keyway on the plug, matching a key on the socket, which is always situated at 6 o'clock;
- the minor also consists of a keyway (plug) and key (socket), but situated in different positions around the clock-face depending on the characteristics of use.

Viewing the socket from the front, the clock-face position (h) of the minor keyway is found by taking as a reference the major keyway, which is always situated at 6 o'clock.

The 63 A and 125 A sockets must be fitted with a pilot contact to activate an electrical interlock if required.



## COLOUR CODE

The operating voltages are identified by conventional colours as shown in the table:

Rated operating voltage V	Colour 1)
from 20 to 25	Violet
from 40 to 50	White
from 100 to 130	Yellow
from 200 to 250	Blue
from 380 to 480	Red
from 500 to 690	Black

1) Combinations of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz inclusive.



Yellow: rated operating voltage between 100 and 130 V-.



Blue: rated operating voltage between 200 and 250 V-.  
Slot: facilitates opening of the lid and prevents the basket from moving when closing.

## STANDARD IEC 60309

### REFERENCE STANDARD

European standard EN 60309-1  
International standard IEC 60309-1  
Plugs, socket-outlets and couplers for industrial purposes  
Part 1: General requirements

European standard EN 60309-2  
International standard IEC 60309-2  
Plugs, socket-outlets and couplers for industrial purposes  
Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

The standards EN 60309-1 and EN 60309-2 (equivalent to IEC 60309-1 and IEC 60309-2) have been adopted by all the European members of CENELEC (Comité Européen de la Normalisation ELECTrotechnique): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Norway, The Netherlands, Portugal, United Kingdom, Spain, Sweden and Switzerland. Many other countries, although not CENELEC members, have adopted the standards, acknowledging the need to standardise both out of safety considerations and with the object of improving performance and sales. Plugs and sockets manufactured according to these standards are in use today across Europe, in the Middle East, Africa, the Pacific Rim, the Far East, North and South America. A further extension of the international standardisation of plugs and sockets for industrial applications will doubtless lead to simplification in the exchange of goods and services. For instance, manufacturing machines will be fitted with plugs that can match the sockets installed in any country, refrigerated containers will always find ports equipped for connection of compressors. Campers, caravans, leisure boats, electric cars will have no problems plugging into power supply posts when travelling abroad.

### PROTECTION DEGREE

The standards set a rating for appliances which is based on their degree of protection against the ingress of solid and liquid matter:

- **IP44** - Plugs and sockets protected against splashing of water; the sockets are provided with a spring lid.
- **IP67** - Plugs and sockets protected against the effects of immersion, fitted with a locking ring with bayonet coupling.

The protection degree is tested:

- on sockets, with lid closed or plug fully inserted;
- on plugs, when fully inserted into the socket.

All series of SCAME plugs and sockets for industrial applications have been designed and constructed to standards IEC 60309-1 and IEC 60309-2 (EN 60309-1 and EN 60309-2).

## SYNOPTIC TABLES

The synoptic tables (on the following pages) of standard plugs and sockets for industrial applications complying with the international standard IEC 60309-2 refer both to > 50 V and < 50 V rated operating voltages. With regard to these plugs and sockets, the tables show the clock face position (h) of the earth contact or of the minor reference point with respect to the major reference point, as well as the colour code when the number of poles, frequency, operating voltage, rated current (AC or DC) and type of application (eg. on ship) are known.

The clock diagram summarises the synoptic tables for quick reference.



Plug and socket with spring lid: protection degree IP44



Plug and socket with locking ring and bayonet coupling: protection degree IP67





## INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309 RATED OPERATING VOLTAGE >50 V

### Clock face position

Viewing the socket from the front, the clock face position h is established by observing the position of the earth contact with respect to the major keyway, which is always situated at 6 o'clock. The different voltages are identified by conventional colour codes.

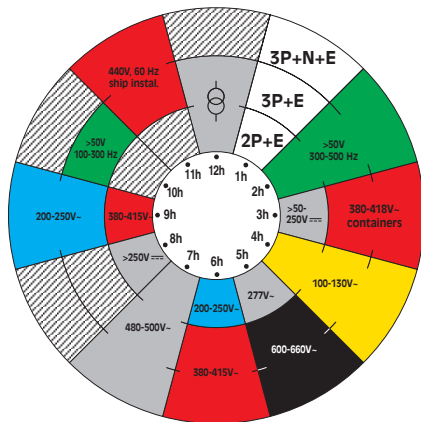
### Clock reference:

All the versions required by the IEC 60309 standard are available, including the more specific:

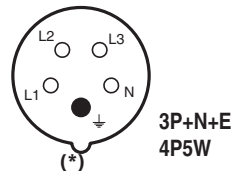
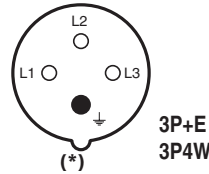
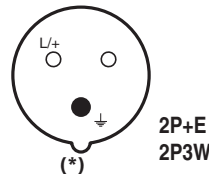
### Examples:

- standard use 6 o'clock
- refrigerated container 3 o'clock
- marine, port or ship installation 11 o'clock
- direct current (2P + E) 3 and 8 o'clock
- supply by isolation transformer (TST) 12 o'clock
- high frequency, from 100 to 300 Hz 10 o'clock
- high frequency, from 300 to 500 Hz 2 o'clock
- specific voltages 100 - 130V 4 o'clock
- 480 - 500V 7 o'clock
- 600 - 690V 5 o'clock

I Series

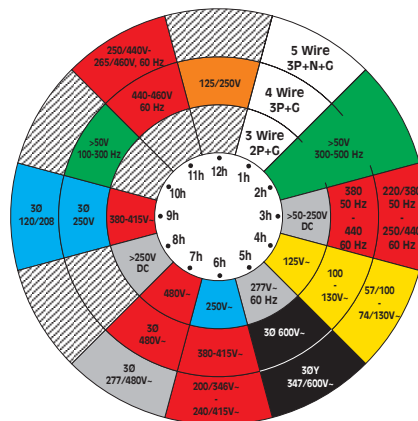


## SOCKET (front view)



(\* ) Major keyway

II Series



### CLOCK DIAGRAM

Clock face position (h) of the earth pole of low voltage (<50 V) industrial plugs and sockets to IEC 60309-2 for different applications (polarity, voltage, frequency, current).

= Supply from isolation transformer

## SYNOPTIC TABLE OF STANDARD INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309-2

Rated operating voltage > 50 V (LV)

Number of contact	poles	Frequency Hz	Rated operating voltage V	Clock face pos.(h) Earth contact (1)		Colour code
				16/20A 32/30A	63/60A 125/100A	
3 Contact 2P3W	1P+N+E II Series	50 e 60	100÷130	4	4	Yellow
	2P+E I and II Series	60	277	5	5	Green
		50 e 60	100÷130	4	4	Yellow
			200÷250	6	6	Blue
			380÷415	9	9	Red
			480÷500	7	7	- (6)
	100÷300	> 50	-	-	Green (5)	
	>300÷500	> 50	2	-	Green (5)	
	d.c.	>50÷250	3	3	- (6)	
	> 250	8	8	- (6)		
4 Contact 3P4W	2P+N+E II Series	50 e 60	125/250 single-phase	12	12	-
	3P+E I and II Series	50 e 60	100÷130	4	4	Yellow
			200÷250	9	9	Blue
			380÷415	6	6	Red
			480÷500	7	7	- (6)
		50 e 60	600÷690	5	5	Black (2)
			50	380	3	-
		60	440 (3)	-	-	Red
		100÷300	> 50	10	-	Green (5)
		>300÷500	> 50	2	-	Green (5)
5 Contact 4P5W		3P+N+E I and II Series	50 e 60	57/100÷75/130	4	4
	120/208÷144/250			9	9	Blue
	200/346÷240/415			6	6	Red
	277/480÷288/500			7	7	- (6)
	347/600÷400/690			5	5	Black (2)
	60		250/440÷265/460 (4)	11	11	Red
	50		220/380	3	-	Red
	60		250/440 (3)	-	-	Red
	100÷300		> 50	-	-	Green (5)
	>300÷500		> 50	2	-	Green (5)
ALL TYPES			All types of voltage and/or frequency not within these standardised configurations	1	1	-

(1) The positions shown by a dash (-) are not standardised

(3) For ISO standard refrigerated containers

(4) Mainly for shipboard installations

(5) Combinations of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz inclusive.

(6) plugs and sockets for which the IEC 60309-2 standard sets only the clock face position (h) of the earth contact and not the colour, are supplied by SCAME in RAL 7035 grey

### SERIES I AND SERIES II

Series I and Series II have more or less the same dimensions, but are classified according to different rated currents. For Series I, currents are 16A, 32A, 63A, and 125A and for Series II, rated currents are 20A, 30A, 60A and 100A.

Series I products are used in all European countries and some countries in South America, Asia, Australia and Africa. On the contrary, Series II products are mainly marketed in North America (USA, Mexico and Canada) and some countries in South America.

### NOTE

❖ SCAME plugs and sockets for specific uses other than 4 - 6 - 9 h are available only on demand and are therefore not kept in stock. Minimum order quantities: 50 pieces.





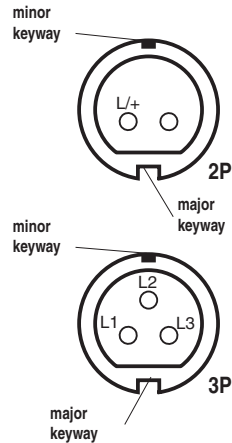
## SYNOPTIC TABLE OF STANDARD INDUSTRIAL PLUGS AND SOCKETS TO IEC 60309-2

Rated operating voltage <50V~ (ELV)

Poles	Frequency Hz	Rated operating voltage V	Minor keyway (1) clock face position (h) 16A and 32A without reference	Colour code
2P	50 e 60	20÷25	without ref.	
	50 e 60	40÷50	12	
	100÷200	20÷25	4	
	300		2	
	400		3	
	>400÷500		11	
c.c.	40÷50	10		
3P	50 e 60	20÷25	without ref.	
	50 e 60	40÷50	12	
	100÷200	20÷25	4	
	300		2	
	400		3	
	>400÷500		11	

(1) 1, 8 and 9 h positions are reserved for future standards; 5, 6 and 7 h positions cannot be used for reasons connected with the design.  
 (2) If necessary, a combination of green with the colour of the rated operating voltage can be used to identify frequencies between 60 Hz and 500 Hz.

## SOCKET (front view)



**Clock face position**  
 Viewing the socket from the front, the clock face position h is established by observing the position of the minor keyway with respect to the major keyway, which is always situated at 6 o'clock.  
 The different voltages are identified by conventional colour codes.



**CLOCK DIAGRAM**  
 Clock face position (h) of the minor keyway of extra-low voltage (<50 V) industrial plugs and sockets to IEC 309-2 for different applications (polarity, voltage, frequency, current).

## APPLICATIONS OF INDUSTRIAL PLUGS AND SOCKETS

	IP44	IP67
<b>Agriculture</b>	Mobile or portable equipment or appliances used or stored on sheltered premises.	Outdoor installation of pumping, ventilation, drying equipment.
<b>Chemical industry</b>	Indoors on premises for storage and maintenance purposes where connections are not exposed to the risk of immersion or chemicals.	On premises without risk of explosions but where the connections are exposed to chemicals and subject to possible immersion.
<b>Construction sites and shipyards</b>	On covered construction sites sheltered against weathering but exposed to splashing with water.	On outdoor construction sites where the connections are left on damp ground exposed to freezing, dust and weathering.
<b>Sports complexes and other places of public entertainment, TV and film studios</b>	On sheltered premises protected against the weather, though exposed to splashing, without high connected loads.	Outdoor connections exposed to rain, snow, mud, freezing and other critical weather conditions. Where mated safety is required. Where high voltage for lighting installations, T.V. and audio are foreseen.
<b>Food industry</b>	In sheltered locations, on indoor premises used for storage and maintenance.	In locations subject to washing by hosing down and where connections are subject to heavy duty.
<b>Heavy industry</b>	In sheltered warehouses, maintenance workshops, assembly and moulding areas.	In rolling mills, foundries, blast furnaces, etc., where the connections are exposed to dust, metallic shavings, coolants and are subject to vibrations and impact.
<b>Light industry</b>	Locations without high humidity or ambient pollution serving for assembly, moulding, maintenance and storage	On premises subject to cleaning by means of chemical solvents. Also where heavy loads require high safety in connections.
<b>Installations for IT centres</b>	For electrical connections executed above floor level.	For electrical connections under raised floors with risk of immersion. Where heavy loads require high safety in connections.
<b>Ports</b>	In sheltered locations such as docks, repair shops, offices, etc.	Quays, docks, piers, etc. where there is risk of high waves and partial flooding.
<b>Airports</b>	In sheltered locations, hangars, repair shops, warehouses.	Outdoors for connection between mobile or portable appliances and aircraft.
<b>Water treatment plants</b>	Indoor use in repair shops, etc.	In all locations with risk of flooding and for outdoor use with pumps, aeration and ventilation systems.





## ELECTRICAL AND MECHANICAL CHARACTERISTICS

### Insulating voltage:

- 690V, 50-60Hz
- minimum insulating clearance between surfaces: 10 mm
- minimum clearance in air: 8 mm (for rated voltages exceeding 500 V)

### Operating voltage:

up to 690V, 50-60Hz

### Breaking capacity:

1.25 times the rated current (test carried out at a voltage 1.1 times the rated operating voltage)

### Electrical and mechanical endurance

- designed to withstand the following operations at rated voltage and current (electrical endurance) or loadless (mechanical endurance)

Rated current A	No. of cycles		
Series	II Series	under load	without load
16A	20A	5.000	-
32A	30A	1.000	1.000
63A	60A	1.000	1.000
125A	100A	250	250

### Impact resistance:

To IEC 60309-1 section 24

### Protection degree: IP44, IP67

Operating temperature: -25°C +40°C according to the reference standard

### Max. operating temperature: 60°C

Certifications: most of the EUREKA Series and IEC309 Series plugs and sockets are certified by Istituto Italiano del Marchio di Qualità IMQ® and many are also certified by VDE, SEMKO, FI, NEMKO as shown in the index by product number at the back of the catalogue

## MATERIALS

- Casing and insert made of engineering plastic with high thermal stability and mechanical strength.
- Self-extinguishing to IEC 60695-2-1: casing 650 °C (glow-wire) and insert 850 °C (glow-wire).
- Seal made of non-ageing EPDM elastomer or rubber.
- Pins of nickel-plated brass for a perfect, lasting electric contact.
- Nickel-plated brass contact tubes with flexible spring for a constant and even contact pressure.
- Nickel-plated steel terminal screws.
- Contact tube springs and external screws of zinc-plated steel.
- Grip and lid spring of stainless steel.
- Resistance to rusting: 10 min in 10% aqueous solution of ammonium chloride.

### Galvanic anti-rusting treatment according to:

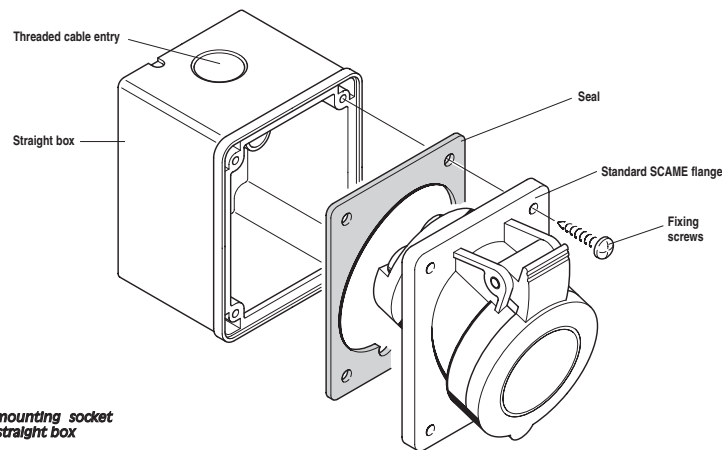
#### UNI 3666-65

General standards relating to testing corrosion of metallic materials

#### UNI 5687-73

Corrosion of metallic materials  
Endurance tests  
Corrosion in salty mist

**Protection degree:** when installing make sure that the separate components, especially seals, cables and cable glands, have been fitted correctly. Any draining knock-out holes in socket outlets with IP44 should be opened and positioned in the lower part of the casing. The protection degree of the sockets is assured either when the matching plugs are inserted or when the lids are closed; that of the plugs is assured when they are inserted in the matching sockets.



Surface mounting socket outlets - straight box

## CABLING OPERATIONS

### Cabling capacity of the terminals:

Cross-section of connectable conductors (mm<sup>2</sup>/awg)

Rated Voltage	Rated current		Plugs, connectors and appliance inlets		Socket outlets	
	min	max	min	max	min	max
Over 50V	16A	20A	1/16	2,5/12	1,5/16	4/12
	32A	30A	2,5/14	6/10	2,5/14	10/8
	63A	60A	6/10	16/6	6/10	25/4
50V or less	125A	100A	16/6	50/2	25/4	70/0
	16A	-	4	10	4	10
	32A	-	4	10	4	10

The terminals for pilot contacts provide connection for conductors with the same nominal cross-section as the internal terminals of 16 A plugs and connectors with rated operating voltage over 50 V.

### Max. cable size accepted by the cable clamp:

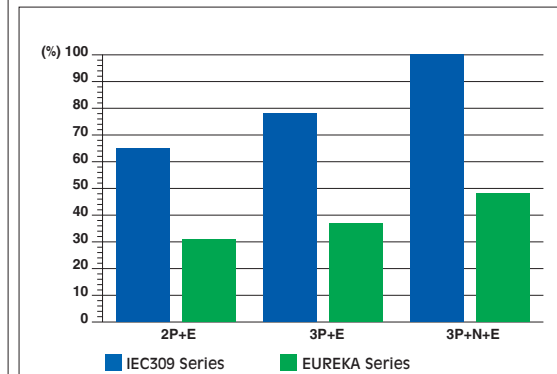
Rated current	Outside ø mm		
	min	max	
16A	20A	8	15
32A	30A	11,5	21
63A	60A	7	31
125A	100A	26	48

## IEC309 AND EUREKA SERIES FAST AND EASY CABLING

SCAME's plugs and sockets have a very special design. Their terminals are easy to get to and are already open and aligned, the cable clamp swivels and has its screw already unscrewed, the casings are semi-screwed and the cable glands are not completely closed. All this to help you save time when cabling.



When cabling, make sure that the conductors are connected correctly. The pilot contact (if required) is identified by the wording "pilot". Each terminal is identified by its symbols L1, L2, L3, N, earth; for single-phase options, L/+ and earth are indicated. Viewed from the front, the plug pins are in reverse order to the connector tubes.



Cabling time in relative terms, Taking the IEC309 Series 3P+N+E plug or connector cabling time as equal to 100%.

**The advantages of the EUREKA Series.** The technical solutions offered by the Eureka series cut down on cabling time, which means a saving in labour costs. The chart shows the amount of time saved with the EUREKA Series compared to the IEC309 Series.







## CONNECTORS FOR ELECTRIC VEHICLES



### GENERAL

Electric vehicles mean reduced air pollution and improvement of quality of life.

Tomorrow's vehicles - electrically powered cars, motorcycles, bicycles with aided pedal stroke - are becoming an increasing reality, also thanks to Scame, a company that always believed that dreams could become true.

Facing this challenge, Scame designed new connectors for vehicles and supply stations, enabling supply from specific columns or from the home garage.

The outcome is the LIBERA Series of adapters, plugs, movable and flush sockets, complying with the evolution of the standards promoted by CIVES - the Italian Commission for Electric Road Vehicles -, which are becoming actual reference standards.



Commissione Italiana Veicoli Elettrici Stradali

CIVES - Italian Commission for electric road vehicles  
Italian section of AVERE  
European Electric Road Vehicles Association  
promoted by EEC.

<http://www.ceiuni.it/CIVES/home.htm>

Adapter for domestic use.



Socket.



## RECHARGE OF ELECTRIC ROAD VEHICLES

During the nineties, the development of electric vehicles remained at experimental level; however, the increasing environmental pollution and the funds provided both by the European Union and the various Governments aimed at reducing harmful emissions in the environment, will increasingly spread the use of this means of transportation.

The introduction of electric vehicles involves the availability of places and sources of power supply, where the vehicle can be connected to the power distribution plant. Depending upon the place where recharge columns will be installed, be they private places with access allowed only to authorized staff, or public places where access is allowed to everybody, the supply of electric power could be or not subject to payment. This could be made for instance by charging the amount of the power withdrawn to the credit card, as it happens with normal vehicles at fuel stations.

According to draft European Standard ENV 50275, there are four different method to recharge electric vehicles, depending upon the type of connection chosen:

### Recharge method no. 1:

Connection of the electric vehicle to the a.c. mains - mains side - by means of single- or three-phase standard plugs and using the phase/s, the neutral and the protection conductor.

Standard plugs, mains side, are those complying with the requirements of national and international standards.

Plug.



### Recharge method no. 2:

Connection of the electric vehicle to the a.c. mains - mains side - by means of single- or three-phase standard plugs using the phase/s, the neutral and the protection conductor. with the addition of control functions between the electric vehicle and the plug or the control box as specified at item 6.4. The control box shall be mounted on the cable at a distance of no more than 0.3 mt from the plug or from the EAVE.

### Recharge method no. 3:

Direct connection of the electric vehicle to the a.c. mains by means of dedicated supply equipment, where the control functions specified at item 6.4 are extended to the portion of equipment permanently connected to the a.c. mains.

### Recharge method no. 4:

Indirect connection of the electric vehicle to the a.c. mains by means of an onboard battery charger, where the control functions specified at item 6.4 are extended to the portion of equipment permanently connected to the a.c. mains.

The above mentioned standard indicates specific requirements, which may be either compulsory or optional, for each of the above recharge method. Italian manufacturers of electric vehicles decided not to use recharge method no. 1, because it does not provide any control on the soundness of the protection circuit before supplying power to the vehicles, which might result into safety problems for the user. In view of this concern, the IEC has requested a special condition of use; as a consequence, ENV 50275 specifies that recharge method no. 1 should not be used in Italy.

Flush sockets.





### TECHNICAL FEATURES

Complying with the above indications, SCAME has realised, in collaboration with the manufacturers of electric vehicles, a connection system consisting of a stationary socket, a movable plug and a movable socket, with the following features:

- rated current: 16A
- rated voltage: 230V
- number of poles 2 + earth +1 back-up terminal
- protection degree: IP44
- high mechanical strength
- protection against direct contact by means of protection guards (same as for domestic plugs).

The decision to design a connector which is not compatible with existing plugs is based on the following safety considerations:

a) electric vehicles, in general, have the battery charger on board, to enable recharge from different sources, without any dedicated equipment. Battery chargers include semiconductor devices to rectify the electric current; in case of failure, these may generate fault currents whose wave shape is influenced by direct current elements. Such d.c. elements are detected in a different way by the various types of differential devices used in the electric systems, namely:

- AC differentials, which are used the most in domestic applications, are not able to detect unidirectional currents and currents influenced by the d.c. elements of the fault current.;
- type A differentials are able to detect sinusoidal fault currents, unidirectional fault currents and currents influenced by d.c. elements of the fault current up to 6 mA;
- type B differentials are able to detect sinusoidal fault currents, unidirectional fault currents, and fault currents influenced by d.c. elements with no value limit.

Domestic installation.



The use of a connector which is not compatible with any existing system involves the installation of the new part; it is therefore assumed that the user adopting the new stationary socket takes care also of the proper protection against indirect contacts.

b) the protection of the active pits of the socket by means of guards able to meet IpXXD protection degree is essential, especially when these sockets are installed in rooms for domestic use; actually in this case the control on the continuity of the grounding system may be neglected and consequently pits could remain always active. The protection of active pits with proper guards not only provides the control on the continuity of the grounding system where required, but assures that no solid foreign matter is introduced into the seat of active pits.

These new connectors will be used first in some public areas for the recharge of motorcycles, which have been arranged in Rome on the occasion of the Jubilee.

The manufacturers, installers and users of electric vehicles will find the new product at electric wholesalers distributing SCAME materials.

Public recharge area.



### MANUFACTURING SPECIFICATIONS

- Grey handgrip - color specification RAL 7035
- Guiding slit fitting different cable diameters (there is no need to cut or match the guiding slit)
- Sockets with spring cover and holding device when plug is connected
- Quick connection and disconnection between the handgrip and the fruit by means of patented SNAP-ON device
- All the screws of the terminal and of the cable-holder are oriented in the same direction
- The cable-holder is balancing and provided with lock
- Ergonomic handgrip to favor easy grip and use
- High protection from indirect contacts, since the ground contact is the first to be established and the last to separate
- Standardised colour, depending upon the voltage used.

### SNAP-ON DEVICE

#### Quick release opening and closure

A proper patented SNAP-ON device assures the quick release connection and disconnection of the EUREKA series sockets and plugs. The SNAP-ON device reduces remarkably wiring times: in fact opening is obtained by releasing the spring with a tool and closure by a simple rotation of the handgrip or of the fruit.

#### OPENING

The product is supplied in the open position; opening is obtained by a simple rotation of the handgrip or of the fruit.

#### CLOSURE

The spring located on the side of the handgrip locks the same on the contact-holding fruit. The assembly is locked through a simple rotation, engaging the spring into its seat.

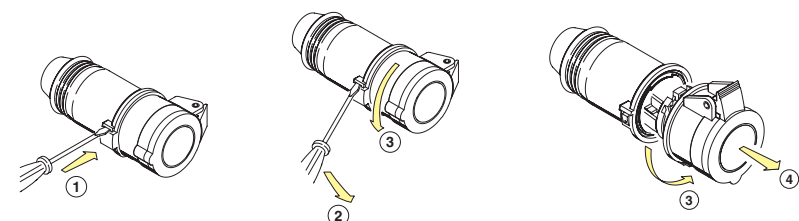


#### INSPECTION

Opening is possible by means of a tool (screw driver) to be used following the ideographs marked on the handgrip.

Besides reducing remarkably wiring times, the device enables to rapidly inspect the terminals and relevant cables on the occasion of the periodic checks of the electric system..

- 1 Press deeply.
- 2 3 Rotate the fruit.
- 4 Draw out.



## IP44 CONNECTORS FOR ELECTRIC VEHICLES

DESCRIPTION	TYPE	FLANGE	PACK QTY.	CATALOGUE NUMBER
Adapter for domestic use	16A-230V- 2P+E - IP20		10/100	200.01623
Plug	16A-230V- 2P+E+Pilot - IP44		10/100	200.01633
	32A-230V- 2P+E+Pilot - IP44		10/100	200.03233
Connector	16A-230V- 2P+E+Pilot - IP44		10/100	200.01643
	32A-230V- 2P+E+Pilot - IP44		10/100	200.03243
Flush mounting socket	16A-230V- 2P+E+Pilot - IP44	70x87 mm	10/100	200.01663
	32A-230V- 2P+E+Pilot - IP44	70x87 mm	10/100	200.03263
Angled socket	16A-230V- 2P+E+Pilot - IP44	70x87 mm	10/100	200.01693
	32A-230V- 2P+E+Pilot - IP44	70x87 mm	10/100	200.03293



200.01623



200.01633



200.03233



200.01643



200.03243



200.01663



200.01693

Completion of the offer:

PANELS BLOCK SERIES 1,3,4	PANELS DOMINO SERIES IP66	ADAPTERS AND TURRETS	WALL BOXES
632.1500-000	672.4316	623.3500-000	570.0016
632.3500-000	672.2300	625.4500-000	570.0116
632.4500-000	672.5616	692.4340	

## DOMINO SERIES SUPPLY PANEL FOR ELECTRIC VEHICLES

### Technical characteristics

- Version with earthing conductor control card for self-propelling electric vehicles (as adopted in Italy - 3 charge mode - and as specified in the standard CEI 69-6 regarding recharging in areas open to third parties).
- N. 2 Libera series 2P+E+ pilot according to CEI 69-6.
- Socket protection with D curve bipolar MT switch and "A" type differential on each socket.
- Emergency cut-off of the recharging system (and the supply of the sockets).
- Panel supply voltage: 230 Vac.
- Rated current: 32A

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
With 2 Libera Series 16A flush sockets and emergency push-button	1	671.3026-480



### ACCESSORIES

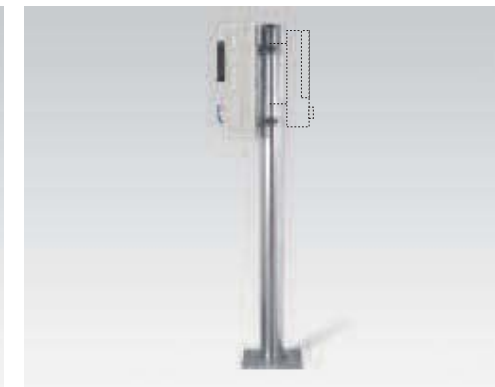
DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Tubular pole in galvanized steel	1	654.0650
Fastening plate	1	654.0651



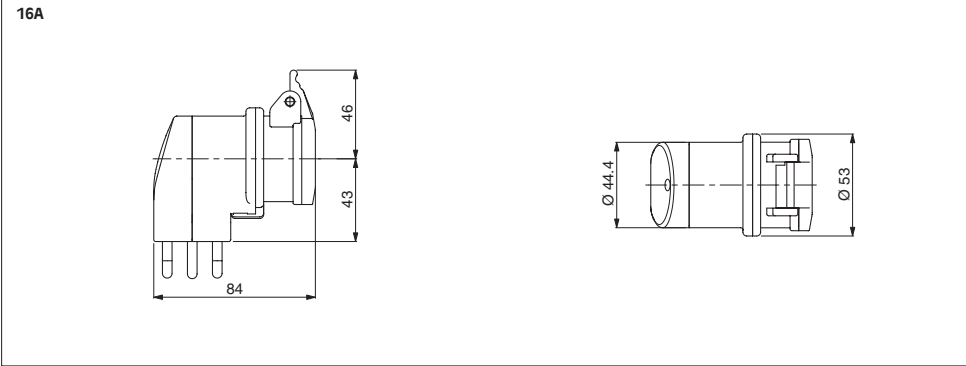
Front view



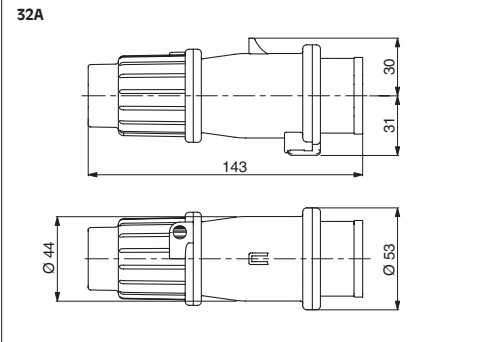
Side view



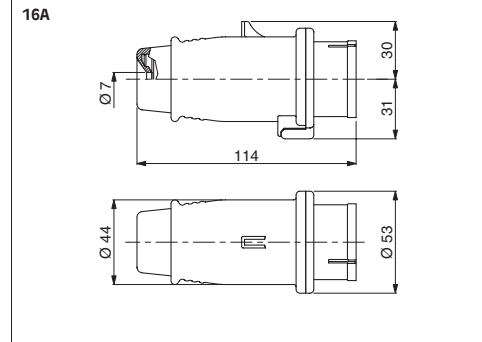
## ADAPTERS FOR DOMESTIC USE



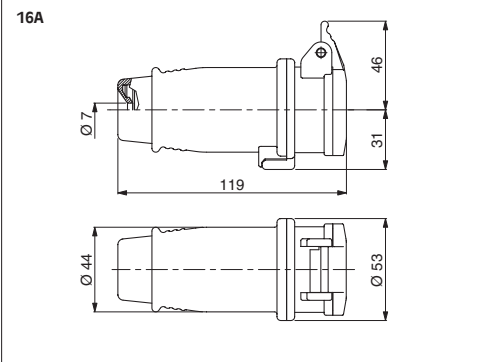
## PLUG



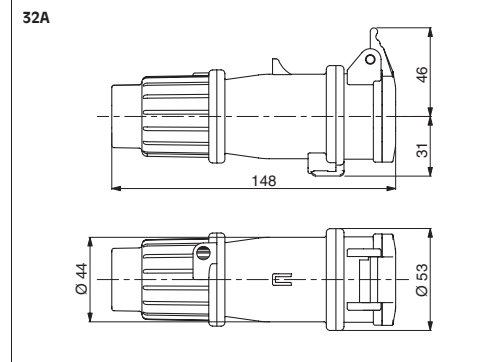
## PLUG



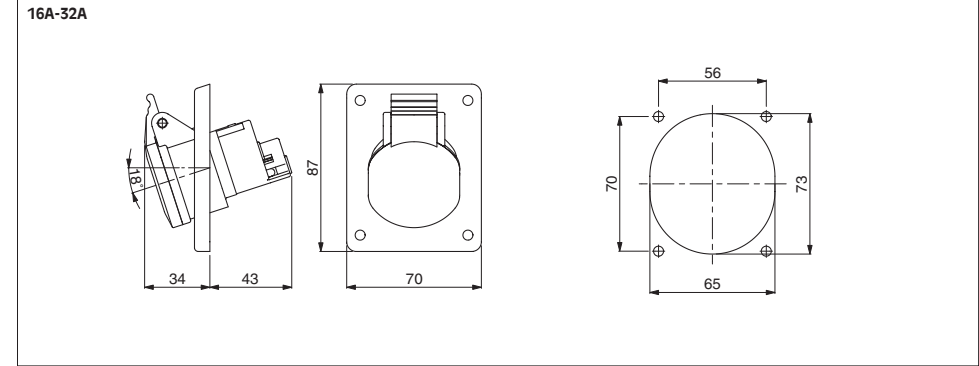
## SOCKET



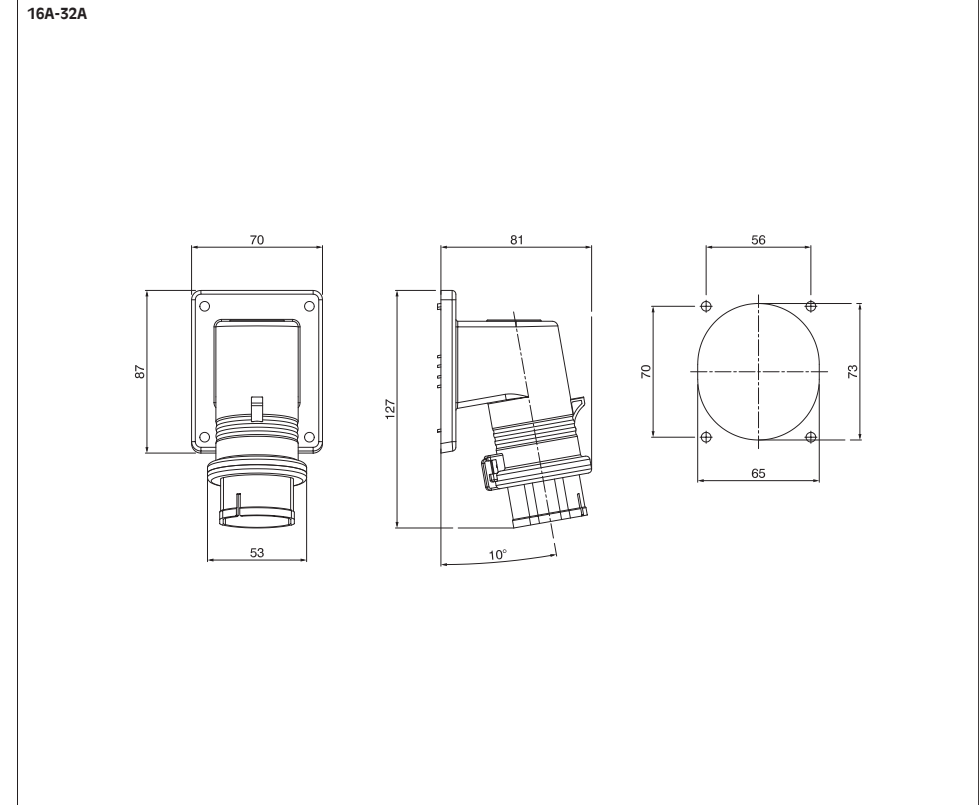
## SOCKET



## FLUSH SOCKET



## APPLIANCE INLETS





## INDUSTRIAL PLUGS AND SOCKETS



### GENERAL DESCRIPTION

This latest generation of industrial plugs, connectors and socket outlets extends and completes the comprehensive range of SCAME's plugs and sockets of the IEC309 Series.

Completely new and internationally patented technical and constructional features have been added to the EUREKA Series.

These features, illustrated in the following pages, are of course joined to high quality functional characteristics, reliability, safety and a long life in even the most operating conditions.

An outstanding advantage of the EUREKA Series plugs and sockets - and one which distinguishes it from all other plugs and sockets manufactured up to this time - is the extraordinary **ease and speed** with which the contacts can be cabled and inspected.

Using EUREKA Series plugs and sockets is therefore highly recommended wherever the electrical contractor considers quick and easy cabling and frequent inspection of the contacts to be **important factors in the management of the installation work.**

## VERSIONS

Available versions for rated operating voltages over 50 V are:

Versions	Rated current	Protection degree
Plugs and connectors	16A - 32A	IP44 - IP67
Plugs and connectors angled	16A - 32A	IP44 - IP67
Plugs and sockets panel mounting 90 ° angled	16A - 32A	IP44 - IP67
Panel mounting socket outlets angled	16A - 32A	IP44 - IP67
Panel mounting socket outlets straight (reduced flange)	16A - 32A	IP44 - IP67
Surface mounting socket outlets straight box	16A - 32A	IP44 - IP67
Surface mounting socket outlets angled box	16A - 32A	IP44 - IP67

## THE SNAP-ON DEVICE

### Snap-action opening and closing

A patented "SNAP-ON" device provides snap-action opening and closing of EUREKA Series plugs and sockets.

The "SNAP-ON" device significantly cuts down on wiring time: it opens by pressing down on the spring with a tool and closes simply by twisting the grip or the insert.

## OPENING



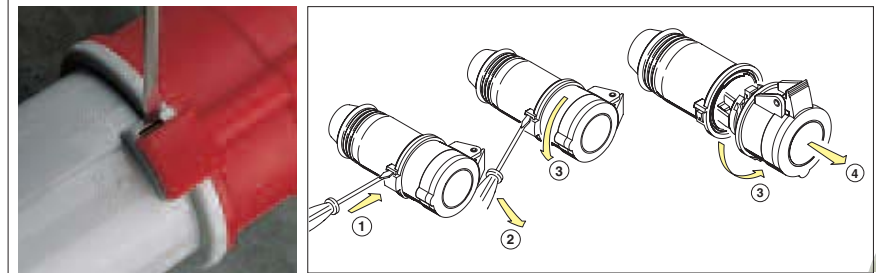
The device is supplied in the open position: simply twist the insert to open.

## CLOSING



The spring on the side of the grip holds it fast against the insert. By twisting the assembly, the spring snaps into its housing.

## INSPECTION



A tool (eg. a screwdriver) is needed to open the assembly, as shown by the pictorial symbols on the grip.

The SNAP-ON locking device, besides speeding up wiring, allows fast inspection of the terminals and cable during routine checking of the electrical system.

- ① Push in deeply
- ② ③ Twist the insert
- ④ Pull out



**SNAP-ON.** The picture above shows the snap-action opening and closing device: a feature of the EUREKA Series.



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



### LID



A wing on the lid assists one-handed opening. Splash-proof protection (IP44) is assured by the two inclined surfaces on the lid and on the insert. These surfaces also assist self-centring of the lid.



The ergonomic shape of the grip has been designed to ensure a perfect grip to prevent the hand from slipping when carrying out insertion or extraction.

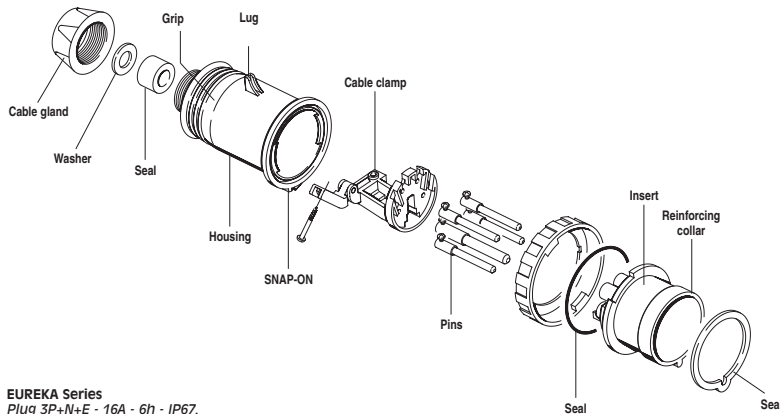
### CABLE INLET



The cable is inserted into the cable sleeve on IP44 versions and into the cable gland on IP67 versions. There is no need to adjust the cable sleeve to the cable size.



The collar serves as a reinforcement for the part most exposed to impact.



EUREKA Series  
Plug 3P+N+E - 16A - 6h - IP67.

### TERMINALS



A well-placed eye in the contacts' retainer guides the screwdriver into the slot in the screw head.

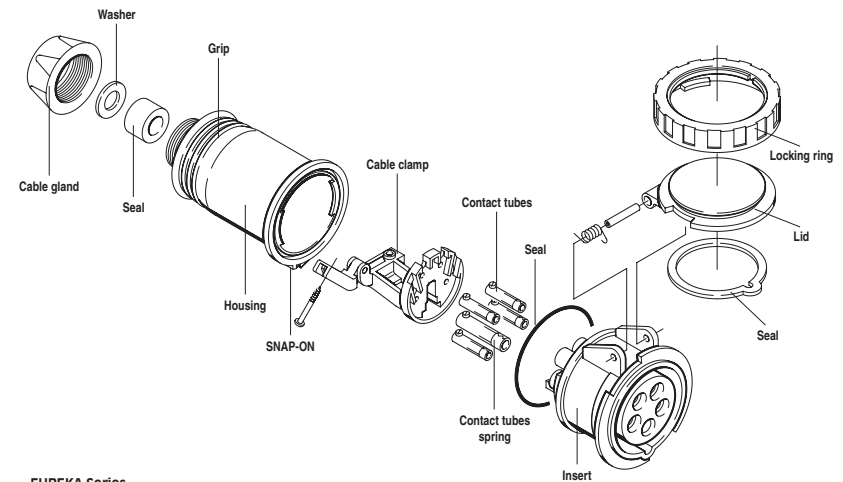


### CABLE CLAMP



The cable clamp is located inside the housing to protect it from damage. The cable is clamped by tightening one single screw using a screwdriver for either single-slotted or cross-slotted screws. To assist wiring operations, the cable clamp is equipped with a "catch" to keep it open and to leave room for the hands when installing.

All terminal and cable clamp screws face in the same direction to avoid having to turn the insert while wiring. A screwdriver for either single-slotted or cross-slotted screw heads can be used for tightening the screws. All the screws are left loose and captive for faster cabling.



EUREKA Series  
Connector 3P+N+E - 16A - 6h - IP67.



Plugs and sockets



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Accessories



Wire connectors



Conduits



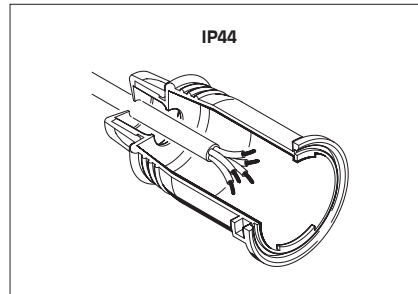
Trunking



## STRUCTURAL CHARACTERISTICS

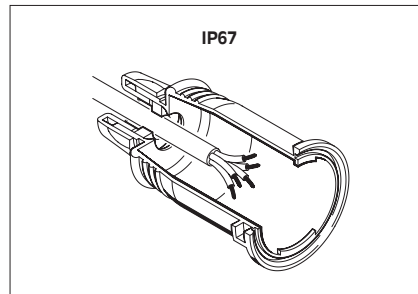
- Standard contact and housing sizes.
- RAL 7035 grey grip.
- Cable sleeve for IP44 types suitable for different cable sizes (no need to cut or adjust the cable sleeves).
- Cable gland for types IP67.
- Plug with lug and socket with guide for perfect coupling.
- Sockets with spring-locking cover and retaining catch when the plug is inserted (types IP44 and IP67)
- Sockets with two-ramp system and plugs with bayonet ring for bayonet coupling (type IP67).
- Fast coupling and decoupling of grip and insert (by means of patented SNAP-ON device).
- All terminal and cable clamp screws facing the same way.
- Swivelling cable clamp fitted with catch.
- Ergonomic grip for easier holding and use.
- Only factory-preset earthing contact position depending on final use.
- High degree of protection against indirect contacts because the earthing contact is the first to be established and the last to be broken.
- Colour-coded for fast identification of the rated voltage.
- Perfectly interchangeable with plugs and sockets of the IEC309 Series and of other manufacturers.

## THE CABLE SLEEVE

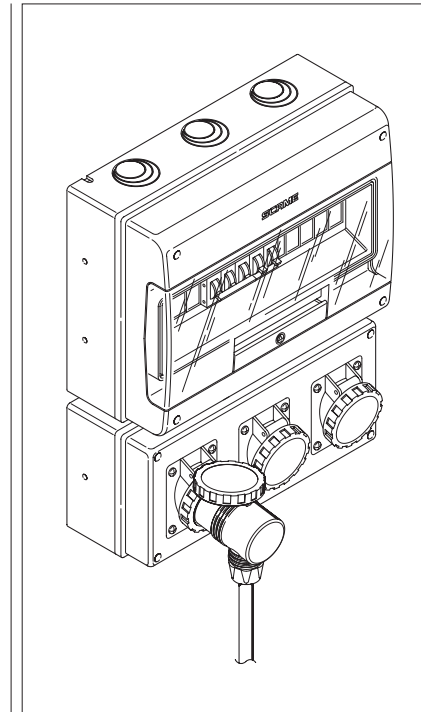


The particular shape of the cable sleeve (IP44) has been designed to allow the insertion of cables of a wide range of sizes without any need for adjustments or cutting.

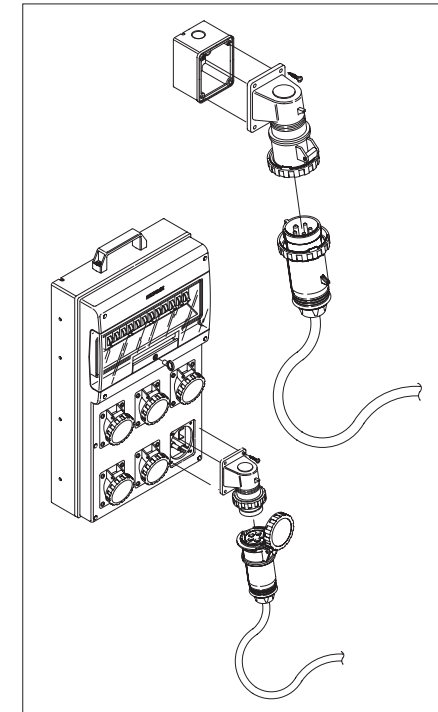
## THE CABLE GLAND



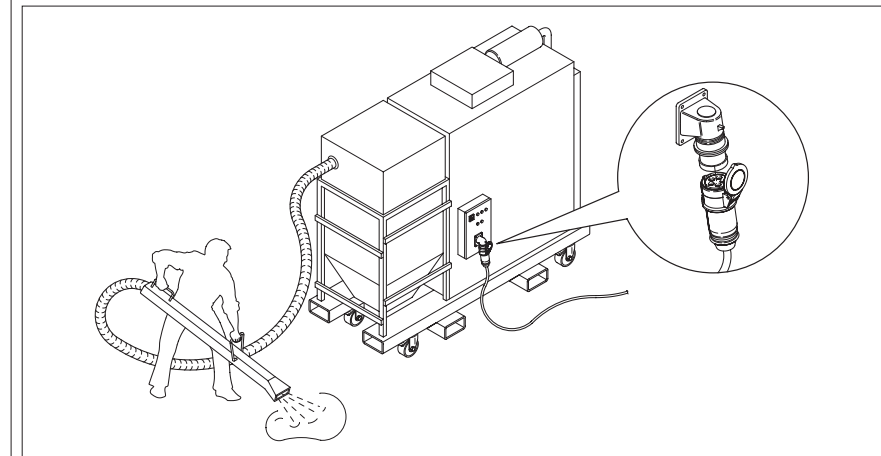
The cable gland assures IP67 protection with an appropriate closing ring which seals off the cable when the gland is tightened.



**EUREKA Series angled plugs:** the angled plugs and sockets reduce projection and depth.



**EUREKA Series 90° angled panel mounting plugs and sockets:** Both 16 A and 32 A use the same standardised SCAME flange (70 X 87 mm) for fixing.



**EUREKA Series 90° angled panel mounting plugs:** particularly suitable for supplying mobile or transportable machines.



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Photos and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



### PLUGS

Rated operating voltage > 50 V

Reference standards: IEC 60309-1 and IEC 60309-2.



- Approvals: from page 587
- Dimensions: from page 238
- Plugs cover 570.0316: page 272

#### STRAIGHT OUTLET

				 IP44		 IP67	
				16 A	32 A	16 A	32 A
				cable sleeve 10/100	cable sleeve 10/50	cable gland 10/100 <sup>1</sup>	cable gland 10/40
Poles	Hz	Volt	Colour	Pack qty.:			
2P+E	50/60	100-130	Yellow	211.1630	211.3230	216.1630	216.3230
	50/60	200-250	Blue	211.1633	211.3233	216.1633	216.3233
	50/60	380-415	Red	211.1638	211.3238	216.1638	216.3238
	60	277	Grey	211.16337	211.32337	216.16337	216.32337
	50/60	480-500	Grey	211.16336	211.32336	216.16336	216.32336
	50/60	is. transf.	Grey	211.16333	211.32333	216.16333	216.32333
	>300-500	>50	Green	211.16332	211.32332	216.16332	216.32332
	c.c.	>50-250	Grey	211.16334	211.32334	216.16334	216.32334
c.c.	>250	Grey	211.16338	211.32338	216.16338	216.32338	
3P+E	50/60	100-130	Yellow	211.1631	211.3231	216.1631	216.3231
	50/60	200-250	Blue	211.1634	211.3234	216.1634	216.3234
	50/60	380-415	Red	211.1636	211.3236	216.1636	216.3236
	60	440-460	Red	211.16365	211.32365	216.16365	216.32365
	50/60	480-500	Grey	211.16366	211.32366	216.16366	216.32366
	50/60	600-690	Black	211.16367	211.32367	216.16367	216.32367
	50/60	is. transf.	Grey	211.16363	211.32363	216.16363	216.32363
	50/60	380/440	Red	211.16364	211.32364	216.16364	216.32364
	100-300	>50	Green	211.16361	211.32361	216.16361	216.32361
	>300-500	>50	Green	211.16362	211.32362	216.16362	216.32362
3P+N+E	50/60	100-130	Yellow	211.1632	211.3232	216.1632	216.3232
	50/60	208-250	Blue	211.1635	211.3235	216.1635	216.3235
	50/60	346-415	Red	211.1637	211.3237	216.1637	216.3237
	50/60	480-500	Grey	211.16376	211.32376	216.16376	216.32376
	50/60	600-690	Black	211.16377	211.32377	216.16377	216.32377
	60	440-460	Red	211.16375	211.32375	216.16375	216.32375
	50/60	380/440	Red	211.16374	211.32374	216.16374	216.32374
	>300-500	>50	Green	211.16372	211.32372	216.16372	216.32372



<sup>1</sup>3P+N+E=Pack qty. 10/40

#### ANGLED OUTLET

				 IP44		 IP67	
				16 A	32 A	16 A	32 A
				cable sleeve 10/100	cable sleeve 10/60 <sup>1</sup>	cable gland 10/100 <sup>1</sup>	cable gland 10/40
221.1630	221.3230	226.1630	226.3230				
221.1633	221.3233	226.1633	226.3233				
221.1638	221.3238	226.1638	226.3238				
221.16337	221.32337	226.16337	226.32337				
221.16336	221.32336	226.16336	226.32336				
221.16333	221.32333	226.16333	226.32333				
221.16332	221.32332	226.16332	226.32332				
221.16334	221.32334	226.16334	226.32334				
221.16338	221.32338	226.16338	226.32338				
221.1631	221.3231	226.1631	226.3231				
221.1634	221.3234	226.1634	226.3234				
221.1636	221.3236	226.1636	226.3236				
221.16365	221.32365	226.16365	226.32365				
221.16366	221.32366	226.16366	226.32366				
221.16367	221.32367	226.16367	226.32367				
221.16363	221.32363	226.16363	226.32363				
221.16364	221.32364	226.16364	226.32364				
221.16361	221.32361	226.16361	226.32361				
221.16362	221.32362	226.16362	226.32362				
221.1632	221.3232	226.1632	226.3232				
221.1635	221.3235	226.1635	226.3235				
221.1637	221.3237	226.1637	226.3237				
221.16376	221.32376	226.16376	226.32376				
221.16377	221.32377	226.16377	226.32377				
221.16375	221.32375	226.16375	226.32375				
221.16374	221.32374	226.16374	226.32374				
221.16372	221.32372	226.16372	226.32372				

<sup>1</sup>3P+N+E=Pack qty. 10/50 - <sup>2</sup>3P+N+E=Pack qty. 10/60 - <sup>3</sup>3P+E=Pack qty. 10/60 - <sup>4</sup>3P+N+E=Pack qty. 10/40  
 (•) The rubber seal also acts as a drilling template. Suitable for DOMINO Series consumer units (page 154)

#### 90° ANGLED - NORMAL FLANGE 70X87 (•)

				 IP44		 IP67	
				16 A	32 A	16 A	32 A
				- 10/100 <sup>2</sup>	- 10/60 <sup>4</sup>	- 10/100 <sup>1,3</sup>	- 10/40
242.1690	242.3290	247.1690	247.3290				
242.1693	242.3293	247.1693	247.3293				
242.1698	242.3298	247.1698	247.3298				
242.16937	242.32937	247.16937	247.32937				
242.16936	242.32936	247.16936	247.32936				
242.16933	242.32933	247.16933	247.32933				
242.16932	242.32932	247.16932	247.32932				
242.16934	242.32934	247.16934	247.32934				
242.16938	242.32938	247.16938	247.32938				
242.1691	242.3291	247.1691	247.3291				
242.1694	242.3294	247.1694	247.3294				
242.1696	242.3296	247.1696	247.3296				
242.16965	242.32965	247.16965	247.32965				
242.16966	242.32966	247.16966	247.32966				
242.16967	242.32967	247.16967	247.32967				
242.16963	242.32963	247.16963	247.32963				
242.16964	242.32964	247.16964	247.32964				
242.16961	242.32961	247.16961	247.32961				
242.16962	242.32962	247.16962	247.32962				
242.1692	242.3292	247.1692	247.3292				
242.1695	242.3295	247.1695	247.3295				
242.1697	242.3297	247.1697	247.3297				
242.16976	242.32976	247.16976	247.32976				
242.16977	242.32977	247.16977	247.32977				
242.16975	242.32975	247.16975	247.32975				
242.16974	242.32974	247.16974	247.32974				
242.16972	242.32972	247.16972	247.32972				

- Plugs and sockets
- Adaptors
- Domestic cablelets
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



## CONNECTORS

Rated operating voltage > 50 V

Reference standards: IEC 60309-1 and IEC 60309-2.

- Approvals : from page 587
- Dimensions : from page 238

Poles	Hz	Volt	Colour	h	Pack qty.:	
2P+E	50/60	100-130	Yellow	4		
	50/60	200-250	Blue	6		
	50/60	380-415	Red	9		
	60	277	Grey	5		
	50/60	480-500	Grey	7		
	50/60	is. transf.	Grey	12		
	>300-500	>50	Green	2		
	c.c.	>50-250	Grey	3		
	c.c.	>250	Grey	8		
3P+E	50/60	100-130	Yellow	4		
	50/60	200-250	Blue	9		
	50/60	380-415	Red	6		
	60	440-460	Red	11		
	50/60	480-500	Grey	7		
	50/60	600-690	Black	5		
	50/60	is. transf.	Grey	12		
	50/60	380-440	Red	3		
	100-300	>50	Green	10		
	>300-500	>50	Green	2		
	3P+N+E	50/60	100-130	Yellow	4	
		50/60	208-250	Blue	9	
		50/60	346-415	Red	6	
		50/60	480-500	Grey	7	
50/60		600-690	Black	5		
60		440-460	Red	11		
50/60		380-440	Red	3		
>300-500		>50	Green	2		

### STRAIGHT OUTLET

IP44		IP67	
16 A	32 A	16 A	32 A
cable sleeve 10/100	cable sleeve 10/50	cable gland 10/100'	cable gland 10/40
311.1640	311.3240	316.1640	316.3240
311.1643	311.3243	316.1643	316.3243
311.1648	311.3248	316.1648	316.3248
311.16437	311.32437	316.16437	316.32437
311.16436	311.32436	316.16436	316.32436
311.16433	311.32433	316.16433	316.32433
311.16432	311.32432	316.16432	316.32432
311.16434	311.32434	316.16434	316.32434
311.16438	311.32438	316.16438	316.32438
311.1641	311.3241	316.1641	316.3241
311.1644	311.3244	316.1644	316.3244
311.1646	311.3246	316.1646	316.3246
311.16465	311.32465	316.16465	316.32465
311.16466	311.32466	316.16466	316.32466
311.16467	311.32467	316.16467	316.32467
311.16463	311.32463	316.16463	316.32463
311.16464	311.32464	316.16464	316.32464
311.16461	311.32461	316.16461	316.32461
311.16462	311.32462	316.16462	316.32462
311.1642	311.3242	316.1642	316.3242
311.1645	311.3245	316.1645	316.3245
311.1647	311.3247	316.1647	316.3247
311.16476	311.32476	316.16476	316.32476
311.16477	311.32477	316.16477	316.32477
311.16475	311.32475	316.16475	316.32475
311.16474	311.32474	316.16474	316.32474
311.16472	311.32472	316.16472	316.32472

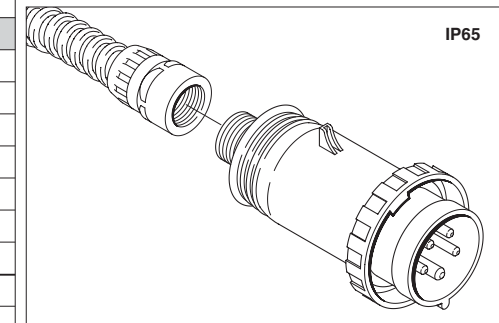
<sup>1</sup>3P+N+E=Pack qty. 10/40

### ANGLED OUTLET

IP44		IP67	
16 A	32 A	16 A	32 A
cable sleeve 10/100	cable sleeve 10/50	cable gland 10/100'	cable gland 10/40
321.1640	321.3240	326.1640	326.3240
321.1643	321.3243	326.1643	326.3243
321.1648	321.3248	326.1648	326.3248
321.16437	321.32437	326.16437	326.32437
321.16436	321.32436	326.16436	326.32436
321.16433	321.32433	326.16433	326.32433
321.16432	321.32432	326.16432	326.32432
321.16434	321.32434	326.16434	326.32434
321.16438	321.32438	326.16438	326.32438
321.1641	321.3241	326.1641	326.3241
321.1644	321.3244	326.1644	326.3244
321.1646	321.3246	326.1646	326.3246
321.16465	321.32465	326.16465	326.32465
321.16466	321.32466	326.16466	326.32466
321.16467	321.32467	326.16467	326.32467
321.16463	321.32463	326.16463	326.32463
321.16464	321.32464	326.16464	326.32464
321.16461	321.32461	326.16461	326.32461
321.16462	321.32462	326.16462	326.32462
321.1642	321.3242	326.1642	326.3242
321.1645	321.3245	326.1645	326.3245
321.1647	321.3247	326.1647	326.3247
321.16476	321.32476	326.16476	326.32476
321.16477	321.32477	326.16477	326.32477
321.16475	321.32475	326.16475	326.32475
321.16474	321.32474	326.16474	326.32474
321.16472	321.32472	326.16472	326.32472

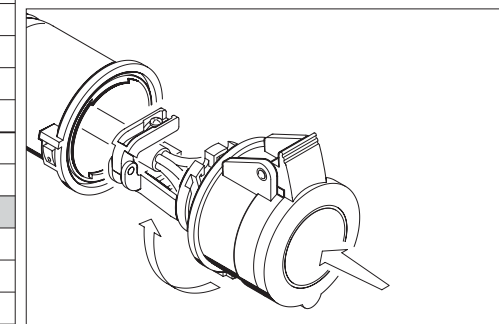
<sup>1</sup>3P+N+E=Pack qty. 10/50

### COUPLING FOR EUREKA TO FLEXIBLE CONDUIT



For connecting flexible conduit and EUREKA Series plugs and connectors different size couplings are available.

### CABLING



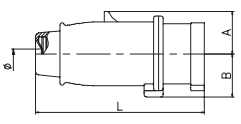
The technical solutions offered by the EUREKA Series cut down on cabling time, which in turn means lower costs for the electrical contractor.







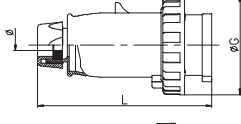
PLUGS



**IP44**

IP44		A	B	C	D	L	Ø Min.
16A	2P+E	30	31	44	53	128	7
	3P+E	34	35	50	59	135	7
	3P+N+E	38	38	57	68	150	9
32A	2P+E	40	38	57	68	159	9
	3P+E	40	38	57	68	159	9
	3P+N+E	45	42	62	75	166	10

CAT. NUMBER 211. ...

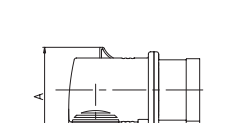


**IP67**

IP67		ØG	B	L	Ø Min.
16A	2P+E	73	98	132	8
	3P+E	81	105	139	8
	3P+N+E	88	121	155	10
32A	2P+E	93	121	164	10
	3P+E	93	121	164	10
	3P+N+E	101	130	173	14

CAT. NUMBER 216. ...

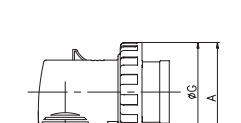
PLUGS - ANGLED



**IP44**

IP44		A	L	Ø Min.
16A	2P+E	70	109	7
	3P+E	77	113	7
	3P+N+E	88	117	9
32A	2P+E	90	135	9
	3P+E	90	135	9
	3P+N+E	100	135	10

CAT. NUMBER 221. ...

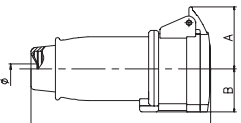


**IP67**

IP67		A	L	ØG	Ø Min.
16A	2P+E	80	109	73	8
	3P+E	88	113	81	8
	3P+N+E	100	117	88	10
32A	2P+E	100	135	93	10
	3P+E	100	135	93	10
	3P+N+E	108	140	101	14

CAT. NUMBER 226. ...

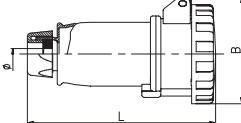
CONNECTORS



**IP44**

IP44		A	B	C	D	L	Ø Min.
16A	2P+E	46	31	44	53	137	7
	3P+E	49	34	50	60	144	7
	3P+N+E	55	39	57	68	160	9
32A	2P+E	55	39	57	68	170	9
	3P+E	55	39	57	68	170	9
	3P+N+E	61	43	63	75	178	10

CAT. NUMBER 311. ...

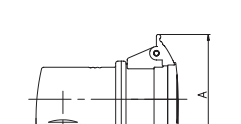


**IP67**

IP67		ØG	B	L	Ø Min.
16A	2P+E	73	75	144	8
	3P+E	81	83	150	8
	3P+N+E	88	95	168	10
32A	2P+E	93	102	178	10
	3P+E	93	102	178	10
	3P+N+E	101	102	187	14

CAT. NUMBER 316. ...


CONNECTORS - ANGLED



**IP44**

IP44		A	L	Ø Min.
16A	2P+E	89	117	7
	3P+E	95	122	7
	3P+N+E	108	127	9
32A	2P+E	110	146	9
	3P+E	110	146	9
	3P+N+E	120	152	10

CAT. NUMBER 321. ...



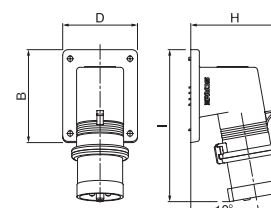
**IP67**

IP67		A	L	ØG	Ø Min.
16A	2P+E	78	120	73	8
	3P+E	86	125	81	8
	3P+N+E	106	130	88	10
32A	2P+E	106	150	93	10
	3P+E	106	150	93	10
	3P+N+E	107	155	101	14

CAT. NUMBER 326. ...

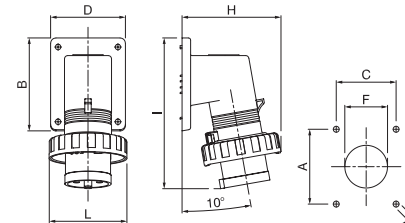
(dimensions in mm)

APPLIANCE INLETS - 90° ANGLED



**IP44**

IP44		A	B	C	D	E	F	H	I
16A	2P+E	70	87	56	70	5,2	40	83	142
	3P+E	70	87	56	70	5,2	40	91	143
	3P+N+E	70	87	56	70	5,2	40	97	144
32A	2P+E	70	87	56	70	5,2	40	99	153
	3P+E	70	87	56	70	5,2	40	99	153
	3P+N+E	70	87	56	70	5,2	40	107	154



**IP67**

IP67		A	B	C	D	E	F	H	I	L
16A	2P+E	70	87	56	70	5,2	40	93	142	73
	3P+E	70	87	56	70	5,2	40	102	143	81
	3P+N+E	70	87	56	70	5,2	40	109	144	88
32A	2P+E	70	87	56	70	5,2	40	111	153	93
	3P+E	70	87	56	70	5,2	40	111	153	93
	3P+N+E	70	87	56	70	5,2	40	120	154	101

(dimensions in mm)

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

### PANEL MOUNTING SOCKET OUTLETS - ANGLED

**IP44**

		A	B	C	D	F	G	H	I
16A	2P+E	70	87	56	70	73	65	45	40
	3P+E	70	87	56	70	73	65	46	40
	3P+N+E	70	87	56	70	73	65	48	41
32A	2P+E	90	106	68	84	87	76	52	60
	3P+E	90	106	68	84	87	76	52	60
	3P+N+E	90	106	68	84	87	76	54	61

**IP67**

		A	B	C	D	E	F	G	H	I
16A	2P+E	70	87	56	70	73	65	52	40	
	3P+E	70	87	56	70	81	73	65	54	40
	3P+N+E	70	87	56	70	88	73	65	55	41
32A	2P+E	90	106	68	84	93	87	76	61	60
	3P+E	90	106	68	84	93	87	76	61	60
	3P+N+E	90	106	68	84	101	87	76	63	61

### PANEL MOUNTING SOCKET OUTLETS - STRAIGHT - REDUCED FLANGE

**IP44**

		I	H
16A	2P+E	27	51
	3P+E	27	51
	3P+N+E	27	52
32A	2P+E	42	62
	3P+E	42	62
	3P+N+E	42	63

**IP67**

		G	H	I
16A	2P+E	73	56	27
	3P+E	81	57	27
	3P+N+E	88	58	27
32A	2P+E	93	68	42
	3P+E	93	68	42
	3P+N+E	101	69	42

(dimensions in mm)

### SURFACE MOUNTING SOCKET OUTLETS - ANGLED BOX

**>50V - IP44**

		A	B	C	D	E	F	H	L
16A	2P+T	65	52	5	112	7,5	127	99	128
	3P+T	65	52	5	112	7,5	127	102	131
	3P+N+T	65	52	5	112	7,5	127	107	133
32A	2P+T	80	66	5	121	7,5	137	116	141
	3P+T	80	66	5	121	7,5	137	116	141
	3P+N+T	80	66	5	121	7,5	137	120	143

**>50V - IP67**

		A	B	C	D	E	F	G	H	L
16A	2P+T	65	52	5	112	7,5	127	73	91	134
	3P+T	65	52	5	112	7,5	127	81	95	135
	3P+N+T	65	52	5	112	7,5	127	88	98	136
32A	2P+T	80	66	5	121	7,5	137	93	112	147
	3P+T	80	66	5	121	7,5	137	93	112	147
	3P+N+T	80	66	5	121	7,5	137	101	113	149

### SURFACE MOUNTING SOCKET OUTLETS - STRAIGHT BOX

**>50V - IP44**

		A	B	C	D	F	G	H
16A	2P+T	70	91	56	74	50	59	102
	3P+T	70	91	56	74	50	59	103
	3P+N+T	70	91	56	74	50	59	105
32A	2P+T	90	111	68	89	62	72	123
	3P+T	90	111	68	89	62	72	123
	3P+N+T	90	111	68	89	62	72	125

**>50V - IP67**

		A	B	C	D	E	F	G	H
16A	2P+T	70	91	56	74	73	50	59	110
	3P+T	70	91	56	74	81	50	59	111
	3P+N+T	70	91	56	74	88	50	59	113
32A	2P+T	90	111	68	89	93	62	72	131
	3P+T	90	111	68	89	93	62	72	131
	3P+N+T	90	111	68	89	101	62	72	134

(dimensions in mm)





### HEAVY DUTY INDUSTRIAL PLUGS AND SOCKETS



#### GENERAL DESCRIPTION

For years SCAME has been offering a wide range of high-quality industrial plugs and sockets complying with IEC 60309-1 and IEC 60309-2 International standards, gaining a leading position in the domestic and export markets. SCAME's industrial plugs and sockets are reliable, robust, easy to wire and provide outstanding resistance to weathering and to chemicals. All of which assures safe operation, even in the most adverse environmental conditions.

This latest generation of industrial plugs, connectors and socket outlets extends and completes the comprehensive range of SCAME's plugs and sockets. Completely new and internationally patented technical and constructional features have been added to the EUREKA-HD Series.

These features, illustrated in the following pages, are of course joined to high quality functional characteristics, reliability, safety and a long life in even the most exacting operating conditions.

An outstanding advantage of the EUREKA-HD Series plugs and sockets - and one which distinguishes it from all other plugs and sockets manufactured up to this time - is the extraordinary **ease and speed** with which the contacts can be cabled and inspected.

Using EUREKA-HD Series plugs and sockets is therefore highly recommended wherever the electrical contractor considers quick and easy cabling and frequent inspection of the contacts to be **important factors in the management of the installation work.**



### REFERENCE STANDARDS

#### European standard EN 60309-1 International standard IEC 60309-1

Plugs, socket-outlets and couplers for industrial purposes  
Part 1: General requirements

#### European standard EN 60309-2 International standard IEC 60309-2

Plugs, socket-outlets and couplers for industrial purposes  
Part 2: Dimensional interchangeability requirements for pin and contact-tube accessories of harmonised configurations.

#### UL 1682

Plugs, receptacles and cable connectors of the pin and sleeve type.

#### UL 1686

Standard for pin and sleeve configuration

### VERSIONS INDEX:

Rated operating voltage up to 50V

VERSIONS	RATED CURRENT	page	PROTECTION DEGREE	
			IP44	IP66/67
<b>Straight Plugs</b>  	16A-32A Series I	255		
	20A-30A Series II	248-249		
	63A-125A Series I			
	60A-100A Series II			
<b>Appliance inlets</b>  	16A-32A Series I	255		
	20A-30A Series II	248-249		
	63A-125A Series I			
	60A-100A Series II			
<b>Straight connectors</b>  	16A-32A Series I	255		
	20A-30A Series II	248-249		
	63A-125A Series I			
	60A-100A Series II			
<b>Panel mounting sockets outlets</b>  	16A-32A Series I	255		
	20A-30A Series II	248-249		
	63A-125A Series I			
	60A-100A Series II			



Plugs and sockets



Adaptors



Domestic cable reels



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



## SAFETY, PERFORMANCE AND DURABILITY...IN A SNAP!

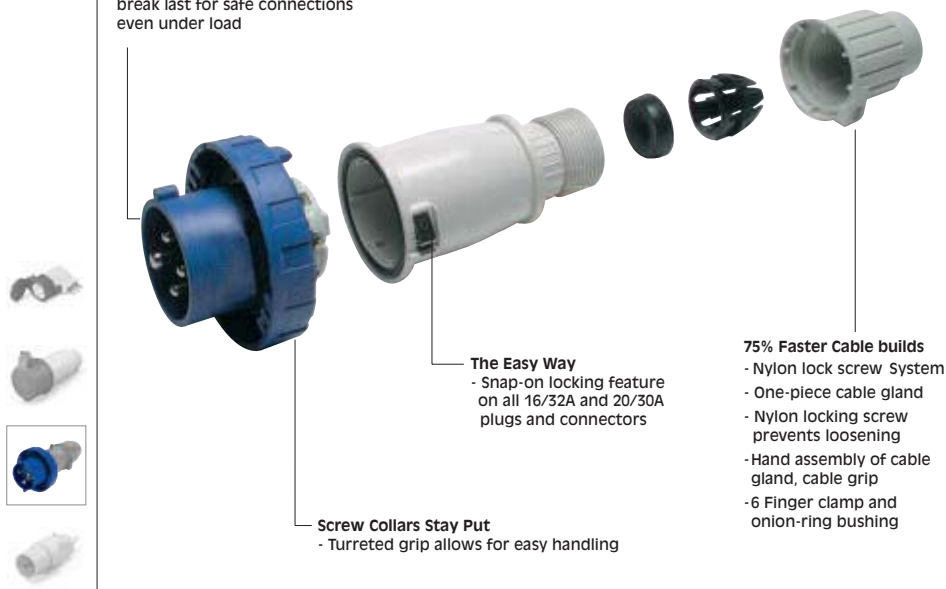


## EXTENSIVE PRODUCT FAMILY:

- Safe and reliable, portable electrical connections
- Wide variety of Plugs, Connectors, Receptacles, Inlets and Mounting Boxes
- Watertight (IP67) and Splashproof (IP44) versions available
- 20, 30, 60, 100, 125, 250, 480 and 600 Amp ratings for small, medium or large current loads
- cULus Listed for North American ratings
- UL classified to IEC 60309-1 and IEC 60309-2 for North American and International ratings
- Complete interchangeability with all manufacturers' IEC 60309-1 and IEC 60309-2 devices
- Meets IEC60309 global configurations for safety in industrial applications

## WATERTIGHT - IP67

**Safe Connections Standard**  
 - Earth contacts make first, break last for safe connections even under load



**The Easy Way**  
 - Snap-on locking feature on all 16/32A and 20/30A plugs and connectors

**75% Faster Cable builds**  
 - Nylon lock screw System  
 - One-piece cable gland  
 - Nylon locking screw prevents loosening  
 - Hand assembly of cable gland, cable grip  
 - 6 Finger clamp and onion-ring bushing

**Screw Collars Stay Put**  
 - Turreted grip allows for easy handling



**Standard Interface / World Ready Full International Compliances**  
 EN 60309  
**UL Classification to IEC 60309-1 and IEC 60309-2.**  
**cULus Listing: UL 1682/1686 and CSA C22.2 No. 182.1.**  
 CE conforms to EC Low Voltage Directive.  
 North American and Global Voltage

Polarization "clock positions" available in all standard ratings.

**Solid, Safe Voltage Selections -**  
 One-Piece contact carriers with Full-Colour IEC standard voltage-phasing Coding ensures correct product application every time.

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



## WATERTIGHT - IP67



Watertight design and construction meet stringent IP67 internal protection standards.

Rugged thermoplastic housings resist impact or abuse and provide excellent corrosion resistance.

Unique SCAME strain relief grip and sealing system assure superior cable retention and watertight conductor termination.

Ideal for outdoor, wet marine and washdown applications. Unique 75% faster assembly with SNAP-ON handle locking, and cable grip system.



**No Tools, No Screws Necessary**  
SNAP-ON locking handle saves 75% on assembly time. Unique SNAP-ON assembly feature on 20 and 30 Amp plugs and connectors makes installation and inspection fast and reliable. Captive gaskets in handles seal out water, chemicals and dust.



**Easy Action Single-Wiring Point Access Saves Time Wiring**  
All terminal screws face in same direction allowing installer to make safe and secure conductor terminations in 30% less time than other devices. Rugged, corrosion free thermoplastic housings are colour-coded for safe reliable connections to all other mating type /polarizations, with raised earth terminal standard.



**Simple Cable Clamping**  
Threaded cable gland on 16/32A and 20/30A devices makes assembly fast and easy. One-piece lock screw verifies clamp locking hold, with no external metal contact possible (16/32A and 20/30A devices).



**Unique Fast**  
One-piece cable gland with locking screw loads to cable followed by cable grip 6-Finger cable clamp/grip piece. Watertight onion ring bushing fits a wide variety of outside diameters.



**Watertight and cable Grip Safety**  
Grip cable flexible 6-Finger clamp teeth holds well beyond all agency test pullout forces. No internal clamps required. Available in all amperages.



**The Performance Connection**  
Watertight spring-loaded covers with high-strength flex-hinge screw covers on IP67 devices. Flap covers on IP44 splashproof styles. Safety, performance and durability for all IEC309 applications worldwide.

## SPLASHPROOF - IP44



Suitable for indoor use where splashing liquids and other contaminants may interfere with electrical connections.

Ideal for most heavy commercial applications and light industrial applications.

Available 16A, 20A, 30A and 32A Amp ratings.

US E238171  
E238172

E238170

## CONFIGURATION

It's impossible to mismatch (non interchangeability) different voltages of the IEC 60309-2 Standard Devices.

**Device size determines current rating.** Each voltage grouping is a different size so they are easily distinguishable for compatibility.

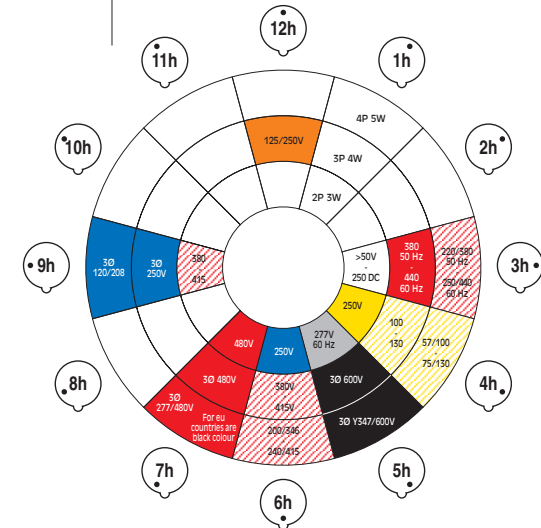
**All IEC 60309 devices are color-coded.** Each voltage grouping has its own distinct colour coding for mating compatibility.

**Every IEC 60309-2 mating plug grounding pin is a mirror image of the female device.** Devices of differing voltages cannot be mated to one another.

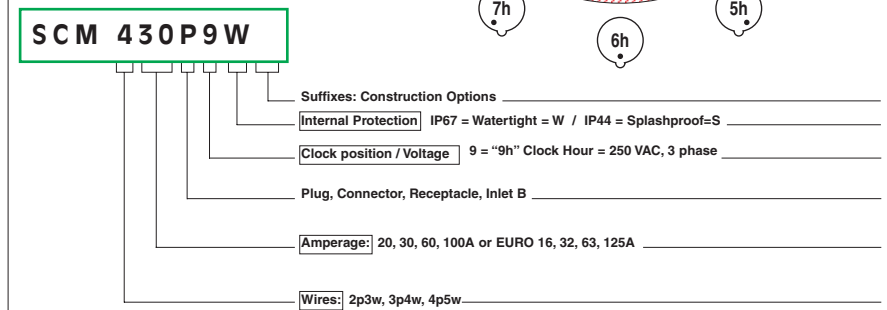
**The Female receptacles and connectors have a "clock face" voltage polarization.** A "keyway" female housing notch is always at 6 o'clock reference position. Earth contact (sleeve) position on this "clockface" establishes voltage polarization. (ie. "7h" = 7 o'clock ground sleeve position) Male pin positions are mirror image.

## Clock position - North American Ratings

Rated Voltage	Colour	Usage (North American)
110-130V	White	North American
208-250V	Blue	North American
380-415V	Red	Euro.
600V +	Black	North American and Euro. (500V)
277/480V	Red	North American
277V	Grey	North American
125/250V	Orange	North American
250/440V	Red	Latin America



## Catalog Numbering System



- Plugs and sockets
- Adaptors
- Domestic cablelets
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking





**60 Amp**  
Watertight Pin and sleeve devices IP67 and IP67



**WATERTIGHT IP67**

Poles & Wires	Configuration			Voltage/ Colour Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet				
	Receptable/ Connector	Plug/Inlet	Clock position							Cat. No.	Cat. No.	Cat. No.	Cat. No.
2P 3W			4h	125	SCM360P4W 215.76030	SCM360C4W 315.76040	0.937-1.375	SCM360R4W 427.76060	SCM360B4W 247.76090				
2P 3W			6h	250	SCM360P6W 215.76033	SCM360C6W 315.76043	0.937-1.375	SCM360R6W 427.76063	SCM360B6W 247.76093				
2P 3W			5h	277	SCM360P5W 211.760337	SCM360C5W 315.760437	0.937-1.375	SCM360R5W 427.760637	SCM360B5W 247.760937				
2P 3W			7h	480	SCM360P7W 215.760336	SCM360C7W 315.760436	0.937-1.375	SCM360R7W 427.760636	SCM360B7W 247.760936				
2P 3W			3h	250DC	SCM360P3W 215.760334	SCM360C3W 315.760434	0.937-1.375	SCM360R3W 427.760634	SCM360B3W 247.760934				
3P 4W			12h	125/250	SCM460P12W 215.760363	SCM460C12W 315.760463	0.937-1.375	SCM460R12W 427.760663	SCM460B12W 247.760963				
3P 4W			9h	3Ø250	SCM460P9W 215.76034	SCM460C9W 315.76044	0.937-1.375	SCM460R9W 427.76064	SCM460B9W 247.76094				
3P 4W			7h	3Ø480	SCM460P7W 215.760366	SCM460C7W 315.760466	0.937-1.375	SCM460R7W 427.760666	SCM460B7W 247.760966				
3P 4W			5h	3Ø600	SCM460P5W 215.760367	SCM460C5W 315.760467	0.937-1.375	SCM460R5W 427.760667	SCM460B5W 247.760967				
4P 5W			9h	3ØY120/208	SCM560P9W 215.76035	SCM560C9W 315.76045	0.937-1.375	SCM560R9W 427.76065	SCM560B9W 247.76095				
4P 5W			7h	3ØY277/480	SCM560P7W 215.760376	SCM560C7W 315.760476	0.937-1.375	SCM560R7W 427.760676	SCM560B7W 247.760976				
4P 5W			5h	3ØY347/600	SCM560P5W 215.760377	SCM560C5W 315.760477	0.937-1.375	SCM560R5W 427.760677	SCM560B5W 247.760977				

(1) Can be used with T&B Russellstoll JB series junction boxes

**100 Amp**  
Watertight Pin and sleeve devices IP67 and IP67



**WATERTIGHT IP67**

Poles & Wires	Configuration			Voltage/ Colour Coding	Plug	Connector	Cable O.D. Range Inches	Receptable	Inlet				
	Receptable/ Connector	Plug/Inlet	Clock position							Cat. No.	Cat. No.	Cat. No.	Cat. No.
2P 3W			6h	250	⋮	⋮	1.2650-1.790	⋮	⋮				
2P 3W			7h	480	⋮	⋮	1.2650-1.790	⋮	⋮				
3P 4W			12h	125/250	SCM4100P12W 215.7100363	SCM4100C12W 315.7100463	1.2650-1.790	SCM4100R12W 427.7100663	SCM4100B12W 247.7100963				
3P 4W			9h	3Ø250	SCM4100P9W 215.710034	SCM4100C9W 315.710044	1.2650-1.790	SCM4100R9W 427.710064	SCM4100B9W 247.710094				
3P 4W			7h	3Ø480	SCM4100P7W 215.7100366	SCM4100C7W 315.7100466	1.2650-1.790	SCM4100R7W 427.7100666	SCM4100B7W 247.7100966				
3P 4W			5h	3Ø600	SCM4100P5W 215.7100367	SCM4100C5W 315.7100467	1.2650-1.790	SCM4100R5W 427.7100667	SCM4100B5W 247.7100967				
4P 5W			9h	3ØY120/208	SCM5100P9W 215.710035	SCM5100C9W 315.710045	1.2650-1.790	SCM5100R9W 427.710065	SCM5100B9W 247.710095				
4P 5W			7h	3ØY277/480	SCM5100P7W 215.7100376	SCM5100C7W 315.7100476	1.2650-1.790	SCM5100R7W 427.7100676	SCM5100B7W 247.7100976				
4P 5W			5h	3ØY347/600	SCM5100P5W 215.7100377	SCM5100C5W 315.7100477	1.2650-1.790	SCM5100R5W 427.7100677	SCM5100B5W 247.7100977				

(1) Can be used with T&B Russellstoll JB series junction boxes





## Performance - Electrical

Dielectric Voltage Withstand  
Maximum Working Voltage  
Current Interrupting/Load Breaking  
Temperature Rise

3000 Volts for 1 minute (fixed devices)  
2200 Volts for 1 minute (portable devices)  
600VAC/250 VDC (minimum creepage and clearances per UL 840)  
Tested to 150% of full rated current for circuit interrupting  
Maximum 30°C rise at full rated current after 50 cycles overload at 150% rated load at 0.75-pf  
Per Nec 430-151b reference for non-interrupting ratings  
20 Amp: 5000 cycles; Load only  
30 Amp: 1000 cycles - Alternating load  
60 Amp: 1000 cycles - Alternating load  
100 Amp: 250 cycles - Alternating load

Horsepower Ratings  
Endurance with Load  
Per IEC 60309-1 Clause 21

## Performance - Mechanical

Cold (-25°C) Impact Resistance  
Cable O.D. Accommodation  
Terminal Identification

Per UL 1682 Section 34 and IEC 60309-1 Clause 24  
Round portable service cord from 0.57" O.D. through 1.79" O.D.  
In accordance with UL 1682 standards and IEC 60390-1:  
as L1-L2-L3-N-G  
Per UL 1682 Section 33 and IEC 60309-1 Clause 23  
molded-in product trademark(s) and UL approved product label

Cable Pull-Out Force  
Product Identification

## Performance - Environmental

Moisture Resistance

Per IEC 60309-1; Watertight flap/screw cover on IP67 devices or splashproof flap cover on IP44 devices

Flammability

All components V1 or better per UL94, V0 product ratings available

Operating Temperatures  
Chemical Resistance

Maximum Continuous 90°C/194°F, Minimum -25°C/-13°F  
Resists standard industrial hydrocarbons, acids, bases and solvents

Corrosion Resistance

All metallic components stainless steel or nickel plated brass  
Sleeve pressure rings of zinc plated steel

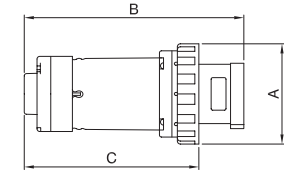
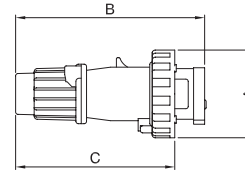
## Materials

Housing  
Contact Carriers  
Cable Gland Nut  
Cable Bushing  
O-Ring, Seals & Gaskets  
Pins & Sleeves  
Sleeve Force Ring  
Terminal Screws  
Flap/Screw Cover Springs  
SNAP-ON Spring  
Mounting Flanges

Valox® (GE plastics)  
Valox® (GE plastics)  
Valox® (GE plastics)  
Solid neoprene, onion ring type  
Solid neoprene  
Nickel plated brass  
Zinc plated steel  
Nickel plated steel  
Stainless steel  
Stainless steel  
Valox® (GE plastics)



## SERIES IP67 DIMENSIONS

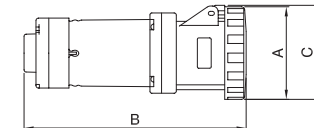
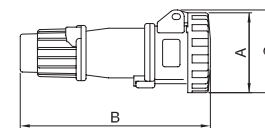


Plug IP67 16/20A and 30/32A

Cat. No.	A		B		C		Cord Grip Range
	inches	mm	inches	mm	inches	mm	
16/20A 2P3W	2.87	73	6.20	157	5.23	133	570-710 14-18
16/20A 3P4W	3.17	81	6.47	164	5.51	140	570-710 14-18
16/20A 4P5W	3.48	88	7.02	178	6.06	154	570-710 14-18
30/32A 2P3W	3.66	93	7.37	187	6.13	156	675-910 17-23
30/32A 3P4W	3.66	93	7.37	187	6.13	156	675-910 17-23
30/32A 4P5W	3.96	101	8.15	207	6.91	176	675-910 17-23

Plug IP67 60/63A and 100/125A

Cat. No.	A		B		C		Cord Grip Range
	inches	mm	inches	mm	inches	mm	
60/63A 2P3W	4.41	112	9.68	246	7.67	195	831-1375 24-35
60/63A 3P4W	4.41	112	9.68	246	7.67	195	831-1375 24-35
60/63A 4P5W	4.41	112	9.68	246	7.67	195	831-1375 24-35
100/125A 3P4W	5.06	129	12.16	309	9.83	250	1265-1790 32-45
100/125A 4P5W	5.06	129	12.16	309	9.83	250	1265-1790 32-45



Connector IP67 16/20A and 30/32A

Cat. No.	A		B		C		Cord Grip Range
	inches	mm	inches	mm	inches	mm	
16/20A 2P3W	2.87	73	6.75	171	2.97	75	570-710 14-18
16/20A 3P4W	3.17	81	7.04	179	3.28	83	570-710 14-18
16/20A 4P5W	3.48	88	7.62	194	3.75	95	570-710 14-18
30/32A 2P3W	3.66	93	8.04	204	4.04	103	675-910 17-23
30/32A 3P4W	3.66	93	8.04	204	4.04	103	675-910 17-23
30/32A 4P5W	3.96	101	8.83	224	4.03	102	675-910 17-23

Connector IP67 60/63A and 100/125A

Cat. No.	A		B		C		Cord Grip Range
	inches	mm	inches	mm	inches	mm	
60/63A 2P3W	4.41	112	10.52	267	4.47	114	831-1375 24-35
60/63A 3P4W	4.41	112	10.52	267	4.47	114	831-1375 24-35
60/63A 4P5W	4.41	112	10.52	267	4.47	114	831-1375 24-35
100/125A 3P4W	5.06	129	12.80	325	5.06	129	1265-1790 32-45
100/125A 4P5W	5.06	129	12.80	325	5.06	129	1265-1790 32-45







### Performance - Electrical

Dielectric Voltage Withstand  
Maximum Working Voltage  
Current Interrupting/Load Breaking

Temperature Rise

Endurance with Load  
Per IEC 60309-1 Clause 21

3000 Volts for 1 minute per IEC 60309-1, Clause 19  
690VAC/250 VDC (minimum creepage and clearances per IEC)  
Tested to 125% rated current at 110% rated voltage per IEC309-1 clause 20  
Maximum 50°C rise at rated current per IEC309-1 Clause 22, Table 8  
16 Amp: 5000 cycles; Load only  
32 Amp: 1000 cycles - Alternating load  
63 Amp: 1000 cycles - Alternating load  
125 Amp: 250 cycles - Alternating load

### Performance - Mechanical

Cold (-25°C) Impact Resistance  
Cable O.D. Accommodation  
Terminal Identification  
Cable Pull-Out Force  
Product Identification

Per IEC 60309-1 Clause 24; (-25°C) with 75cm drop  
Round portable service cords from 14.5 mm O.D. through 50mm O.D.  
In accordance with IEC 60309-1 standards; as L1-L2-L3-N-G  
in accordance with IEC 60309-1, Clause 23  
Molded-in product Trademark(s) and CE Mark on packaging

### Performance - Environmental

Moisture Resistance

Flammability

Operating Temperatures

Chemical Resistance

Corrosion Resistance

UV Resistance

Per 309-1; Watertight flap/screw cover IP67 devices or flap cover on IP44 devices  
Per IEC 60695-2-1; Housing glow wire tested to 650°C;  
Contact carrier insert tested to 850°C  
Maximum Continuous 90°C/194°F, Minimum -25°C/-13°F with impact  
Resists standard industrial hydrocarbons, acids, bases and solvents  
All metallic components stainless steel or nickel plated brass  
Sleeve pressure rings of zinc plated steel  
External Thermoplastic components are UV stabilized  
IP67 Series 2 is suitable for outdoor use

### Material

Housing  
Contact Carriers  
Cable Gland Nut  
Cable Bushing  
O-Ring, Seals & Gaskets  
Pins & Sleeves  
Sleeve Force Ring  
Terminal Screws  
Flap/Screw Cover Springs  
SNAP-ON Spring  
Mounting Flanges

Valox® (GE plastics)  
Valox® (GE plastics)  
Valox® (GE plastics)  
Valox® (GE plastics)  
Solid neoprene, onion ring type  
Solid neoprene  
Nickel plated brass  
Zinc plated steel  
Nickel plated steel  
Stainless steel  
Stainless steel  
Valox® (GE plastics)



### SERIES IP44 DIMENSIONS

**Plug IP44**

Cat. No.	A		B		C		Cord Grip Range
	inches	mm	inches	mm	inches	mm	
16/20A 2P3W	2.26	58	6.20	157	4.76	121	.570-.710 14-18
16/20A 3P4W	2.52	64	6.47	164	5.04	128	.570-.710 14-18
16/20A 4P5W	2.85	73	7.02	178	5.58	142	.570-.710 14-18
30/32A 2P3W	2.85	73	7.37	187	5.58	142	.675-.910 17-23
30/32A 3P4W	2.85	73	7.37	187	5.58	142	.675-.910 17-23
30/32A 4P5W	3.13	80	8.15	207	6.36	162	.675-.910 17-23

**Plug IP44**

Cat. No.	A		B		C		Cord Grip Range
	inches	mm	inches	mm	inches	mm	
16/20A 2P3W	2.18	55	6.53	166	3.07	78	.570-.710 14-18
16/20A 3P4W	2.43	62	6.83	173	3.33	85	.570-.710 14-18
16/20A 4P5W	2.81	71	7.41	188	3.79	96	.570-.710 14-18
30/32A 2P3W	2.81	71	7.81	198	3.79	96	.675-.910 17-23
30/32A 3P4W	2.81	71	7.81	198	3.79	96	.675-.910 17-23
30/32A 4P5W	3.09	79	8.62	219	4.17	106	.675-.910 17-23

**Inlet IP44**  
16/20A and 30/32A

Cat. No.	A		B		C		D		E		F		G		H	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
16/20A 2P3W	2.26	58	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
16/20A 3P4W	2.52	64	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
16/20A 4P5W	2.85	73	1.96	50	4.50	114	.75	19	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 2P3W	2.85	73	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 3P4W	2.85	73	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2
30/32A 4P5W	3.13	80	2.32	59	4.50	114	1.32	34	3.87	98	3.87	98	2.38	60	.282	7.2

**Receptacle IP44**  
16/20A and 30/32A

Cat. No.	A		B		C		D		E		F		G		H		I	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm
16/20A 2P3W	2.18	55	2.11	54	2.97	76	0.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.07	78
16/20A 3P4W	2.43	62	2.13	54	2.97	76	0.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.33	85
16/20A 4P5W	2.81	71	2.17	55	2.97	76	0.94	24	2.36	60	2.36	60	2.38	60	.219	5.5	3.79	96
30/32A 2P3W	2.81	71	2.56	65	2.97	76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	3.79	96
30/32A 3P4W	2.81	71	2.56	65	2.97	76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	3.79	96
30/32A 4P5W	3.09	79	2.60	66	2.97	76	1.52	39	2.36	60	2.36	60	2.38	60	.219	5.5	4.17	106





### INDUSTRIAL PLUGS AND SOCKETS



#### GENERAL DESCRIPTION

SCAME have further improved the performance and design of their wide range of industrial plugs and sockets that comply with the IEC 60309 standard. Special attention has been paid to the use of insulating materials and the treatment of metal components.

The outstanding mechanical characteristics of IEC309 Series plugs and sockets and their ability to withstand weathering and chemicals make them safe and reliable even in the most severe environmental conditions.

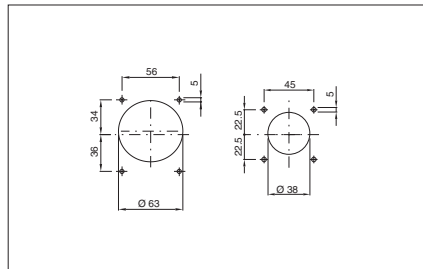
#### VERSIONS

IEC309 Series plugs and sockets come in several versions to meet the diverse installation requirements of modern-day equipment.

The tables show IEC 60309 Series plug and socket versions for operating voltages below 50 V (Extra-Low Voltage) and over 50 V (Low Voltage).

#### FIXING

SCAME sockets for voltage < 50V can be surface mounted or panel mounted on panel boards, or where the surface is set up with the following perforation.



#### Rated operating voltage up to 50 V (ELV)

Versions	Rated current	Protection degree
Plugs and connectors	16A - 32A	IP44 - IP67
Panel mounting socket outlets-angled or straight (with reduced flange)	16A - 32A	IP44 - IP67
Surface-mounting sockets with angled or straight box	16A - 32A	IP44 - IP67

#### Rated operating voltage above 50 V (ELV)

Versions	Rated current	Protection degree
Plugs	16A - 32A	IP44
	63A - 125A	IP67
Appliance inlets	16A - 32A	IP44
	16A - 32A 63A - 125A	IP67
Connectors	16A - 32A	IP44
	63A - 125A	IP67
Panel mounting socket outlets angled	63A - 125A	IP67
Panel mounting socket outlets straight with reduced flange	16A	IP44
Surface mounting socket outlets with angled box	63A - 125A	IP67

Extra low voltage, < 50V also in IP67 version.



#### CONSTRUCTION CHARACTERISTICS

- Standard contact and housing dimensions
- RAL 7035 grey grip
- Cable sleeve for IP44
- Cable gland for IP67
- Plug with key and socket with keyway to ensure perfect coupling.
- Sockets with spring-locking cover and retaining catch when the plug is inserted, for both IP44 and IP67.
- Sockets with locking ring lids and plugs with inclined surfaces and bayonet fitting for IP67.
- Fold-back cable clamp for IP67 types.
- Only factory-set earth contact position depending on end use.
- High protection against indirect contacts since the earth contact is the first to be established and the last to be broken.
- Colour-coded to identify the different rated voltages.
- Perfect interchangeability with EUREKA Series plugs and sockets and with other makes.



63 A connector: cable entry with cable gland.

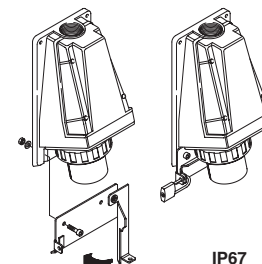


125 A plug: the cable clamp.

#### Accessories:

Mechanical locking device for appliance inlets.

#### 63A - 125A



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

### PLUGS AND SOCKETS - IP44

Rated Operating voltage < 50V

Reference standards: IEC 60309-1 and IEC 60309-2

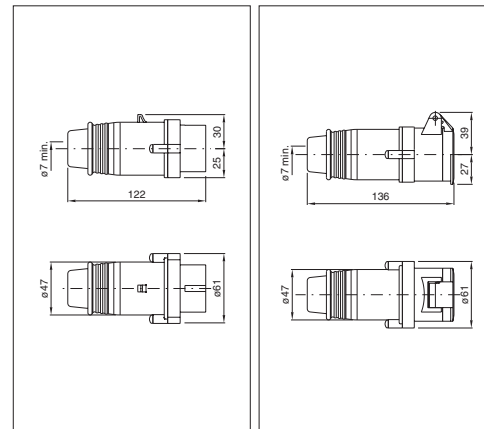
• Approvals : from page 587

Poles	Hz	V	Colour	Inlet/Flange: Pack qty.: h.
2P	50/60	20-25		-
	50/60	40-50		12
	100-200	20-25 40-50		4
	300	20-25 40-50		2
	400	20-25 40-50		3
	>400-500	20-25 40-50		11
	c.c	20-25 40-50		10
3P	50/60	20-25		-
	50/60	40-50		12
	100-200	20-25 40-50		4
	300	20-25 40-50		2
	400	20-25 40-50		3
	>400-500	20-25 40-50		11

PLUGS		CONNECTORS	
IP44		IP44	
16 A	32 A	16 A	32 A
10/100	10/100	10/100	10/100
230.1600	230.3200	330.1605	330.3205
230.1601	230.3201	330.1606	330.3206
230.16010	230.32010	330.16060	330.32060
230.16012	230.32012	330.16062	330.32062
230.16014	230.32014	330.16064	330.32064
230.16015	230.32015	330.16065	330.32065
230.1602	230.3202	330.1607	330.3207
230.1604	230.3204	330.1609	330.3209
230.1603	230.3203	330.1608	330.3208
230.16030	230.32030	330.16080	330.32080
230.16032	230.32032	330.16082	330.32082
230.16034	230.32034	330.16084	330.32084
230.16035	230.32035	330.16085	330.32085

Mobile plugs - IP44 <50V

Mobile plugs - IP44 <50V



(dimensions in mm)

(▲) The surface mounting sockets outlets illustrated on page 261, are also available in a Metric cable inlet. For ordering Add .M after the first three digits (ex. 530.M01610)

### PANEL MOUNTING SOCKET OUTLETS

IP44		IP44	
16 A	32 A	16 A	32 A
70x87* 10/100	70x87* 10/100	55x55* 10/100	55x55* 10/100
430.1615	430.3215	430.1615/R	430.3215/R
430.1616	430.3216	430.1616/R	430.3216/R
430.16160	430.32160	430.16160/R	430.32160/R
430.16162	430.32162	430.16162/R	430.32162/R
430.16164	430.32164	430.16164/R	430.32164/R
430.16165	430.32165	430.16165/R	430.32165/R
430.1617	430.3217	430.1617/R	430.3217/R
430.1619	430.3219	430.1619/R	430.3219/R
430.1618	430.3218	430.1618/R	430.3218/R
430.16180	430.32180	430.16180/R	430.32180/R
430.16182	430.32182	430.16182/R	430.32182/R
430.16184	430.32184	430.16184/R	430.32184/R
430.16185	430.32185	430.16185/R	430.32185/R

### SURFACE MOUNTING SOCKET OUTLETS<sup>(1)</sup>

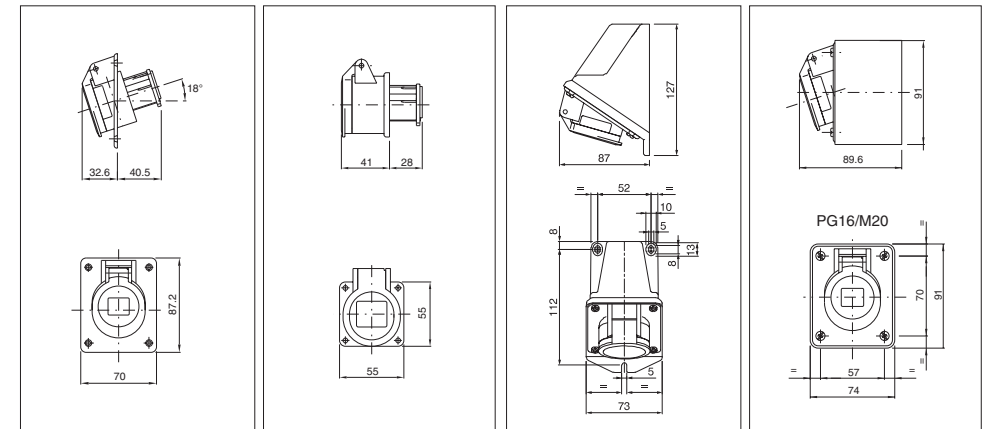
IP44 (1)		IP44 (1)	
16 A	32 A	16 A	32 A
PG16/M20 10/50	PG16/M20 10/50	PG16/M20 10/50	PG16/M20 10/50
530.01610	530.03210	530.1610	530.3210
530.01611	530.03211	530.1611	530.3211
530.016110	530.032110	530.16110	530.32110
530.016112	530.032112	530.16112	530.32112
530.016114	530.032114	530.16114	530.32114
530.016115	530.032115	530.16115	530.32115
530.01612	530.03212	530.1612	530.3212
530.01614	530.03214	530.1614	530.3214
530.01613	530.03213	530.1613	530.3213
530.016130	530.032130	530.16130	530.32130
530.016132	530.032132	530.16132	530.32132
530.016134	530.032134	530.16134	530.32134
530.016135	530.032135	530.16135	530.32135

(\*) Angled - Standard flange

(\*) Straight - Reduced flange

Angled box

Straight box



(Dimensions in mm)  
Fixing: see page 258

(1) With gasket, 4 screws kit, enclosure with knockout hole inlets

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

### PLUGS AND SOCKETS - IP67

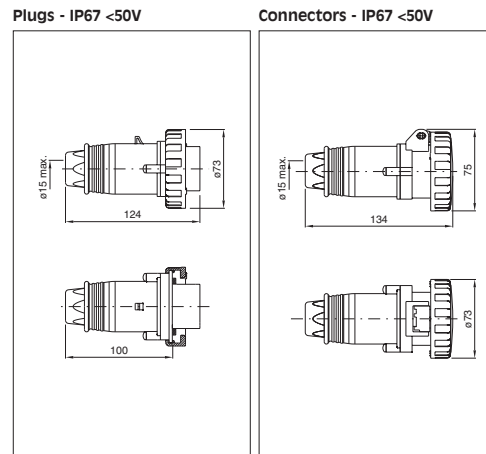
Rated operating voltage <math>\leq 50 V</math>

Reference standards: IEC 60309-1 and IEC 60309-2

• Approvals : from page 587

Poles	Hz	V	Colour	Inlet/Flange Pack qty.:	
					h.
2P	50/60	20-25		-	-
	50/60	40-50		12	-
	100-200	20-25 40-50		4	-
	300	20-25 40-50		2	-
	400	20-25 40-50		3	-
	>400-500	20-25 40-50		11	-
3P	c.c.	20-25 40-50		10	-
	50/60	20-25		-	-
	50/60	40-50		12	-
	100-200	20-25 40-50		4	-
	300	20-25 40-50		2	-
	400	20-25 40-50		3	-
>400-500	20-25 40-50		11	-	

PLUGS		CONNECTORS	
16 A	32 A	16 A	32 A
10/100	10/100	10/100	10/50
235.1600	235.3200	335.1605	335.3205
235.1601	235.3201	335.1606	335.3206
235.16010	235.32010	335.16060	335.32060
235.16012	235.32012	335.16062	335.32062
235.16014	235.32014	335.16064	335.32064
235.16015	235.32015	335.16065	335.32065
235.1602	235.3202	335.1607	335.3207
235.1604	235.3204	335.1609	335.3209
235.1603	235.3203	335.1608	335.3208
235.16030	235.32030	335.16080	335.32080
235.16032	235.32032	335.16082	335.32082
235.16034	235.32034	335.16084	335.32084
235.16035	235.32035	335.16085	335.32085

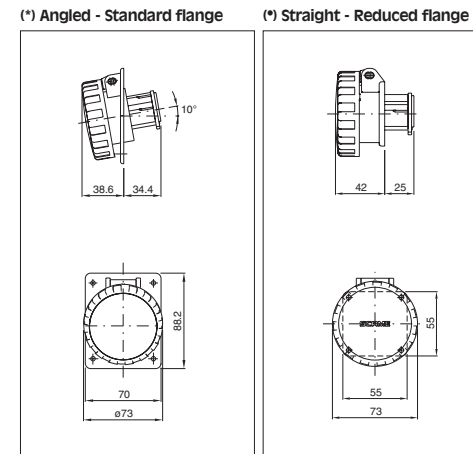


(Dimensions in mm)

(▲) The surface mounting sockets outlets illustrated on page 263, are also available in a Metric cable inlet. For ordering add .M after the first three digits (ex. 535.M01610)

### PANEL MOUNTING SOCKET OUTLETS

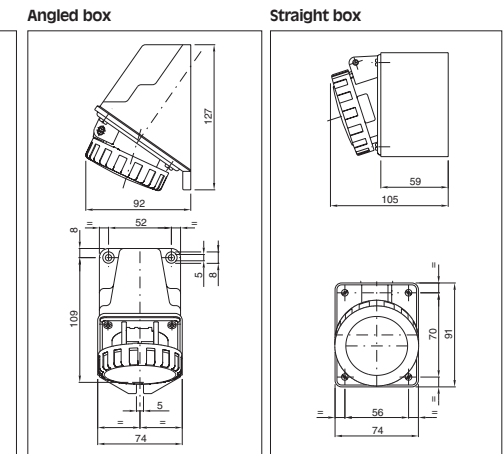
IP67		IP67	
16 A	32 A	16 A	32 A
70x87* 10/100	70x87* 10/100	55x55* 10/100	55x55* 10/100
435.1615	435.3215	435.1615/R	435.3215/R
435.1616	435.3216	435.1616/R	435.3216/R
435.16160	435.32160	435.16160/R	435.32160/R
435.16162	435.32162	435.16162/R	435.32162/R
435.16164	435.32164	435.16164/R	435.32164/R
435.16165	435.32165	435.16165/R	435.32165/R
435.1617	435.3217	435.1617/R	435.3217/R
435.1619	435.3219	435.1619/R	435.3219/R
435.1618	435.3218	435.1618/R	435.3218/R
435.16180	435.32180	435.16180/R	435.32180/R
435.16182	435.32182	435.16182/R	435.32182/R
435.16184	435.32184	435.16184/R	435.32184/R
435.16185	435.32185	435.16185/R	435.32185/R



(\*) With seal, 4 screws, PG16 screw cap, box with PG16 threaded hole.

### SURFACE MOUNTING SOCKET OUTLETS<sup>(1)</sup>

IP67 (1)		IP67 (1)	
16 A	32 A	16 A	32 A
PG16/M20 10/50	PG16/M20 10/50	PG16/M20 10/50	PG16/M20 10/50
535.01610	535.03210	535.1610	535.3210
535.01611	535.03211	535.1611	535.3211
535.016110	535.032110	535.16110	535.32110
535.016112	535.032112	535.16112	535.32112
535.016114	535.032114	535.16114	535.32114
535.016115	535.032115	535.16115	535.32115
535.01612	535.03212	535.1612	535.3212
535.01614	535.03214	535.1614	535.3214
535.01613	535.03213	535.1613	535.3213
535.016130	535.032130	535.16130	535.32130
535.016132	535.032132	535.16132	535.32132
535.016134	535.032134	535.16134	535.32134
535.016135	535.032135	535.16135	535.32135



(Dimensions in mm)  
Fixing: see page 258

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



## PLUGS AND SOCKETS

Rated operating voltage >50 V

Reference standards: IEC 60309-1 and IEC 60309-2

- IP44 Cable sleeves
- IP67 Cable sleeves

- Approvals: from page 587
- Dimensions: from page 268
- Plugs cover 570.0316: page 272

Poles	Hz	V	Colour	h	Cable inlet:	
					Pack qty.:	
2P+E	50/60	100-130	Yellow	4		
	50/60	200-250	Blue	6		
	50/60	380-415	Red	9		
	60	277	Grey	5		
	50/60	480-500	Grey	7		
	50/60	is. transf.	Grey	12		
	>300-500	>50	Green	2		
	c.c.	>50-250	Grey	3		
c.c.	>250	Grey	8			
3P+E	50/60	100-130	Yellow	4		
	50/60	200-250	Blue	9		
	50/60	380-415	Red	6		
	60	440-460	Red	11		
	50/60	480-500	Grey	7		
	50/60	600-690	Black	5		
	50/60	is. transf.	Grey	12		
	50/60	380/440	Red	3		
	100-300	>50	Green	10		
	>300-500	>50	Green	2		
3P+N+E	50/60	100-130	Yellow	4		
	50/60	208-250	Blue	9		
	50/60	346-415	Red	6		
	50/60	480-500	Grey	7		
	50/60	600-690	Black	5		
	60	440-460	Red	11		
	50/60	380/440	Red	3		
	>300-500	>50	Green	2		

## PLUGS

IP44		IP67	
16 A	32 A	63 A	125 A
cable sleeve 10/100	cable sleeve 10/100	PG36 6/24	PG48 1/8
210.1630		215.6330	
210.1633	210.3233	215.6333	215.12533
		215.6338	
		215.63337	
		215.63336	
		215.63333	
		215.63334	
		215.63338	
		215.6331	215.12531
210.1634	210.3234	215.6334	215.12534
210.1636	210.3236	215.6336	215.12536
		215.63365	215.125365
		215.63366	215.125366
		215.63367	215.125367
		215.63363	215.125363
		215.6332	215.12532
		215.6335	215.12535
210.1637	210.3237	215.6337	215.12537
		215.63376	215.125376
		215.63377	215.125377
		215.63375	215.125375

## CONNECTORS

IP44		IP67	
16 A	32 A	63 A	125 A
cable sleeve 10/100	cable sleeve 10/50	PG36 6/24	PG48 1/8
310.1640		315.6340	
310.1643	310.3243	315.6343	315.12543
		315.6348	
		315.63437	
		315.63436	
		315.63433	
		315.63434	
		315.63438	
		315.6341	315.12541
310.1644	310.3244	315.6344	315.12544
310.1646	310.3246	315.6346	315.12546
		315.63465	315.125465
		315.63466	315.125466
		315.63467	315.125467
		315.63463	315.125463
		315.6342	315.12542
		315.6345	315.12545
310.1647	310.3247	315.6347	315.12547
		315.63476	315.125476
		315.63477	315.125477
		315.63475	315.125475

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

## APPLIANCE INLETS



Rated operating voltage >50 V

Reference standards: IEC 60309-1 and IEC 60309-2

- Supplied with screw cap

- Approvals : from page 587
- Dimensions : from page 268

(▲) The appliance inlets 63A and 125A are also available in a Metric cable inlet. For ordering add .M after the first three digits (ex. 245.M6390)

					STANDARD		PANEL MOUNTING	
								
					IP67		IP67	
					63 A		125 A	
					PG29/M32 3/12		PG48/M63 1/8	
					Flange 10		Flange 10	
Poles	Hz	V	Colour	h	245.6390	245.12593	246.6390	246.12593
2P+E	50/60	100-130		4	245.6390		246.6390	
	50/60	200-250		6	245.6393	245.12593	246.6393	246.12593
	50/60	380-415		9	245.6394		246.6394	
	60	277		5				
	50/60	480-500		7				
	50/60	is. transf.		12				
	>300-500	>50		2				
	c.c.	>50-250		3				
	c.c.	>250		8				
3P+E	50/60	100-130		4	245.6391	245.12591	246.6391	246.12591
	50/60	200-250		9	245.6392	245.12592	246.6392	246.12592
	50/60	380-415		6	245.6396	245.12596	246.6396	246.12596
	60	440-460		11				
	50/60	480-500		7				
	50/60	600-690		5				
	50/60	is. transf.		12				
	50 60	380 440		3				
	100-300	>50		10				
>300-500	>50		2					
3P+N+E	50/60	100-130		4	245.6395	245.12595	246.6395	246.12595
	50/60	208-250		9	245.6397	245.12598	246.6397	246.12598
	50/60	346-415		6	245.6398	245.12597	246.6398	246.12597
	50/60	480-500		7				
	50/60	600-690		5				
	60	440-460		11				
	50 60	380 440		3				
	>300-500	>50		2				

## PANEL MOUNTING SOCKET OUTLETS

Rated operating voltage >50 V



Reference standards: IEC 60309-1 and IEC 60309-2

- Approvals : from page 587
- Dimensions : see page 268

570.0163



ACCESSORIES:  
Empty surface  
mounting boxes  
(page 273)

					ANGLED		ANGLED BOX	
								
					IP67		IP67	
					63 A		125 A	
					100x110 6/30		114x114 1/10	
					Flange dim. (mm): Pack qty.:		PG29/M32 6/12	
Poles	Hz	V	Colour	h	415.6360	415.12563	515.6350	515.12553
2P+E	50/60	100-130		4	415.6360		515.6350	
	50/60	200-250		6	415.6363	415.12563	515.6353	515.12553
	50/60	380-415		9	415.6368		515.6358	
	60	277		5	415.63637		515.63537	
	50/60	480-500		7	415.63636		515.63536	
	50/60	is. transf.		12	415.63633		515.63533	
	>300-500	>50		2				
	c.c.	>50-250		3	415.63634		515.63534	
	c.c.	>250		8	415.63638		515.63538	
3P+E	50/60	100-130		4	415.6361	415.12561	515.6351	515.12551
	50/60	200-250		9	415.6364	415.12564	515.6354	515.12554
	50/60	380-415		6	415.6366	415.12566	515.6356	515.12556
	60	440-460		11	415.63665	415.125665	515.63565	515.125565
	50/60	480-500		7	415.63666	415.125666	515.63566	515.125566
	50/60	600-690		5	415.63667	415.125667	515.63567	515.125567
	50/60	is. transf.		12	415.63663	415.125663	515.63563	515.125563
	50 60	380 440		3				
	100-300	>50		10				
>300-500	>50		2					
3P+N+E	50/60	100-130		4	415.6362	415.12562	515.6352	515.12552
	50/60	208-250		9	415.6365	415.12565	515.6355	515.12555
	50/60	346-415		6	415.6367	415.12567	515.6357	515.12557
	50/60	480-500		7	415.63676	415.125676	515.63576	515.125576
	50/60	600-690		5	415.63677	415.125677	515.63577	515.125577
	60	440-460		11	415.63675	415.125675	515.63575	515.125575
	50 60	380 440		3				
	>300-500	>50		2				

(▲) The surface mounting socket outlets 63A and 125A, are also available in a Metric cable inlet. Add .M after first three digits (ex. 515.M6350)

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

## MOBILE PLUGS

### IP44

		L	B	Ø
16A	2P+E	135	58	7
	3P+E	142	67	7
	3P+N+E	159	76	9
32A	2P+E	174	79	9
	3P+E	174	79	9
	3P+N+E	180	88	10

### IP67

		ØG	B	L	PG
63A	2P+E	112	175	247	36
	3P+E	112	175	247	36
	3P+N+E	112	175	247	36
125A	2P+E	128	235	308	48
	3P+E	128	235	308	48
	3P+N+E	128	235	308	48

## APPLIANCE INLETS

### IP67

		A	B	C	D	E	F	G	H	K	L	PG/M	ØG
63A	2P+E	115	96	6	10	235	205	80	131	15	267	29/32	112
	3P+E	115	96	6	10	235	205	80	131	15	267	29/32	112
	3P+N+E	115	96	6	10	235	205	80	131	15	267	29/32	112
125A	2P+E	135	120	6	13	300	270	100	159	17	346	48/63	128
	3P+E	135	120	6	13	300	270	100	159	17	346	48/63	128
	3P+N+E	135	120	6	13	300	270	100	159	17	346	48/63	128

## APPLIANCE INLETS

### IP44

		A	B	ØC	ØD	E	F	ØG	H	I
63A	2P+E	85	80	79	4.5	110	100	112	88.5	44.5
	3P+E	85	80	79	4.5	110	100	112	88.5	44.5
	3P+N+E	80	85	79	4.5	110	100	112	88.5	44.5
125A	2P+E	100	100	90	6	114	114	128.5	97	53.5
	3P+E	100	100	90	6	114	114	128.5	97	53.5
	3P+N+E	100	100	90	6	114	114	128.5	97	53.5

## MOBILE CONNECTORS

### IP44

		A	B	C	D	L	Ø
16A	2P+E	38	29	50	50	146	7
	3P+E	41	32	55	57	155	7
	3P+N+E	49	39	62	65	169	9
32A	2P+E	47	39	56	65	182	9
	3P+E	47	39	56	65	182	9
	3P+N+E	51	42	69	71	193	13

### IP67

		ØG	B	L	PG
63A	2P+E	112	114	257	36
	3P+E	112	114	257	36
	3P+N+E	112	114	257	36
125A	2P+E	128	128	324	48
	3P+E	128	128	324	48
	3P+N+E	128	128	324	48

## PANEL MOUNTING SOCKET OUTLETS

### IP67

		A	B	C	D	E	F	G	H	I
63A	2P+E	85	110	80	100	4.5	92	80	63	89
	3P+E	85	110	80	100	4.5	92	80	63	89
	3P+N+E	85	110	80	100	4.5	92	80	63	89
125A	2P+E	90	114	90	114	6	104	92	76	101
	3P+E	90	114	90	114	6	104	92	76	101
	3P+N+E	90	114	90	114	6	104	92	76	101

## REDUCED FLANGE PANEL MOUNTING SOCKET OUTLETS

### IP67 (63A - 125A)

		A	B	C	D	E	F	G	H	K	L	PG/M	ØG
63A	2P+E	115	96	6	10	235	205	80	125	15	267	29/32	112
	3P+E	115	96	6	10	235	205	80	125	15	267	29/32	112
	3P+N+E	115	96	6	10	235	205	80	125	15	267	29/32	112
125A	2P+E	135	120	6	13	300	270	100	157	17	346	48/63	128
	3P+E	135	120	6	13	300	270	100	157	17	346	48/63	128
	3P+N+E	135	120	6	13	300	270	100	157	17	346	48/63	128

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



## SWITCHED SOCKET-OUTLET



### GENERAL DESCRIPTION

It is just characterised by combining the control disconnecting switch with a BS1363 (British Standard), socket-outlet which are both enclosed in the same panel. Type BS perfectly integrates into System ADVANCE 2.

The high mechanical features and excellent resistance to the atmospheric and chemical agents make its use safe and reliable even in the most difficult environmental conditions.

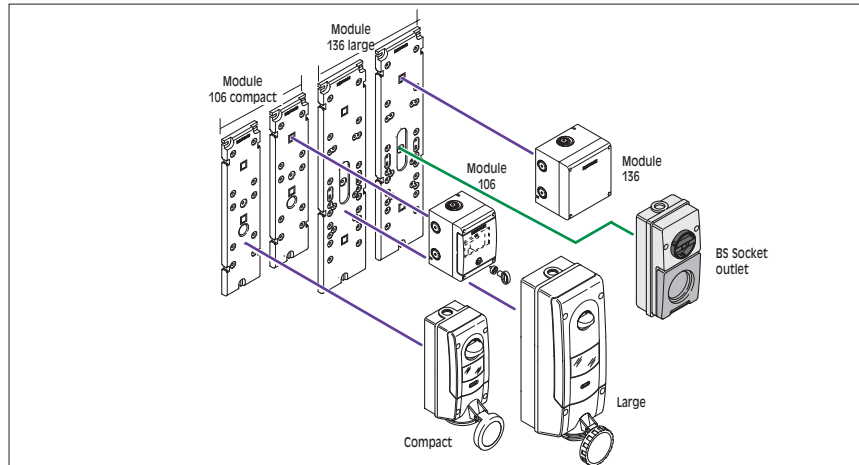
## REFERENCE STANDARD

**BS1363-2**  
13A Plugs, socket-outlets, adaptors and connection unit.  
Part 2: specification for 13A switched and unswitched socket-outlets.

### TECHNICAL CHARACTERISTICS

- 2P+E 13A 250V a.c. BS1363 socket-outlet
- Switch disconnecter according to EN60947-3
- Protection degree IP66 (with closed cover or plug with ring inside)
- Padlockable in OFF position (3 padlock) and in ON position (1 padlock)
- Cable entry: 1xM25 threaded in the upper part, 2xM20 knocks out in the lower part, 2xM20/25 knocks out on bottom.
- Equipped with threaded tap 1xM25
- Compatibility with ADVANCE 2 System (see at the bottom of page)

## COMPATIBILITY WITH ADVANCE 2 SYSTEM



## BS socket-outlet

- Protection degree: IP66
- Colour: grey RAL 7035

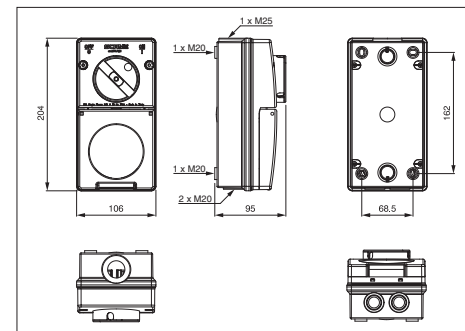
DESCRIPTION	SOCKET OUTLET	PACK QTY.	CATALOGUE NUMBER
Switched socket-outlet (13A)		1/12	570.7180
British standard 2P+E 13A 250V~			



## TECHNICAL DATA OF SWITCH-DISCONNECTORS

Reference standard: IEC 60947-3

				20A	
Rated insulation voltage $U_i$	$V_{AC}$			690	
	$V_{DC}$			400	
Rated impulse withstand voltage $U_{imp}$				kV 4	
Thermal current $I_{th}$				A 30	
Thermal current $I_{thc}$				A 30	
Nominal current rating	<b>AC21A</b> Resistive loads, including moderate overloads	690V	A	30	
	<b>AC22A</b> Mixed resistive and inductive loads, including moderate overloads	690V	A	20	
	<b>AC23A</b> Switching off motor loads or other highly inductive loads (3 phase / 3 pole)	400V			-
		500V	A		-
	<b>AC3</b> Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	690V			16
		400V	A		-
	<b>DC21A</b> Resistive loads, including moderate overloads	690V	A		12
		300V	A		25
<b>DC22A</b> Mixed resistive and inductive loads, including moderate overloads	250V	A		20	
Rated short-time withstand current $I_{ts}$ (1s)			A	400	
Short-circuit protection:	Conditional short-circuit current			kAeff 10	
	Associate fuse size for conditional short-circuit current - Type gG	500V	A	16	
	Rated short-circuit making capacity, $I_{cm}$		A	1500	
Permissible wire gauge:	Flexible wire	mm <sup>2</sup>		1.5 - 10	
	AWG			16 - 8	
	Rigid wire	mm <sup>2</sup>		1.5 - 16	
	AWG			16 - 6	



## ACCESSORIES FOR THE IEC309 AND EUREKA SERIES

Reference standards: IEC 60309-1 and IEC 60309-2

### MECHANICAL LOCKING DEVICES - IP67

Allows only authorised personnel to handle the appliance coupler.  
 - For Scame IP67 appliance inlets IEC309 Series (see pages 206-207)  
 - Made of zinc plated steel  
 - Can be padlocked

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
63A 3P+N+E	1	570.1563
125A 3P+N+E	1	570.1125

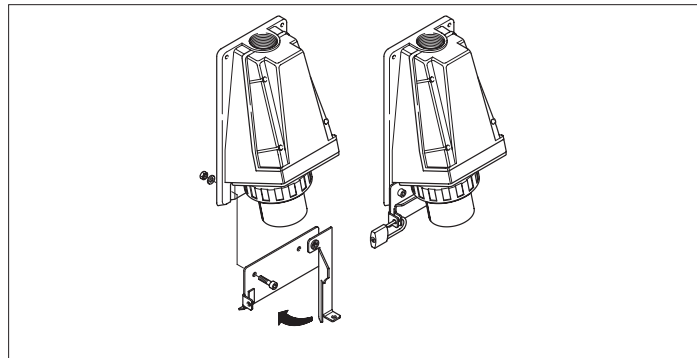


### COVER FOR IP44 AND IP67 PLUGS

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Plugs cover 16A/20A - 2P+E	10/100	570.0316



Mechanical lock on 63A plug.



## ACCESSORIES FOR THE IEC309 AND EUREKA SERIES

Reference standards: IEC 60309-1 and IEC 60309-2

### EMPTY SURFACE MOUNTING BOXES - IP67

For the surface mounting of IEC309 and Eureka Series and domestic panel mounting socket outlets.  
 - Supplied with socket fastening screws  
 - Screw cap with seal  
 - Thermoplastic material  
 - RAL 7035 grey

OUTLET	CABLE INLET	SUITABLE FOR SOCKETS	FLANGE DIM. (mm)	CABLE INLET	PACK QTY.	CATALOGUE NUMBER
Straight box	Knockout hole	16A IP44/IP67	70x87	PG16	10	570.0016
				M20	10	570.M0016
	Knockout hole	32A IP44/IP67	84x106	PG21	10	570.0032
				M25	10	570.M0032
Angled box	Knockout hole	16A IP44/IP67	70x87	PG16	10	570.0116
				M20	10	570.M0116
	Knockout hole	32A IP44/IP67	84x106	PG21	10	570.0132
				M25	10	570.M0132
	Threaded	63A IP67	100x110	PG29	6	570.0163
				M32	6	570.M0163
Threaded	125A IP67	114x114	PG48	6	570.0125	
			M63	6	570.M0125	



570.0016  
570.M0016



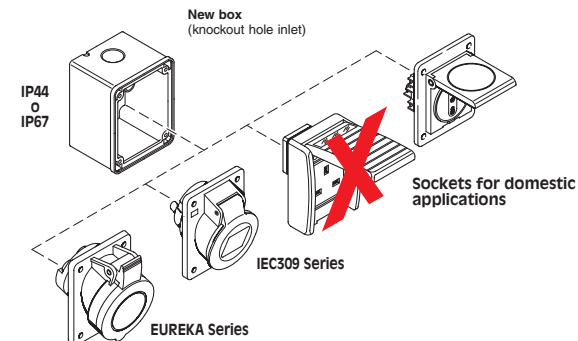
570.0116  
570.M0116



570.0163  
570.M0163



570.0125  
570.M0125



## SOCKETS FOR DOMESTIC APPLICATIONS

- Thermoplastic material
- The IP44 protection degree is reduced to IP20 when the lid is open

### PANEL MOUNTING - FLANGE 50X60 mm - IP44

- With spring lid
- Supplied with gasket
- Blue colour

DESCRIPTION	STANDARD	PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 250V~ (P30)	Italian	10/100	570.2081
2P+E - 16A - 250V~ (German Standard)	German (VDE)	10/100	570.2061
2P+E - 16A - 250V~ (Dual-use)	Italiano (CEI 23-16)	10/100	570.2071
2P+E - 16A - 250V~ (UTE)	French (NFC 61-303)	10/100	570.2091



### PANEL MOUNTING - FLANGE 70X87 mm - IP44

- With spring lid
- Supplied with gasket
- Suitable for product 570.0016 and 0116 (see page 273)
- Blue colour

DESCRIPTION	STANDARD	PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 250V~ (Pluristandard)	Italian/German	10/100	570.4051
2P+E - 16A - 250V~ (Unel)	German (VDE)	10/100	570.4061
2P+E - 16A - 250V~ (Dual-use)	Italian (CEI 23-16)	10/100	570.4071
2P+E - 16A - 250V~ (P30)	Italian	10/100	570.4081
2P+E - 16A - 250V~ (UTE)	French (NFC 61-303)	10/100	570.4091



### PANEL MOUNTING - FLANGE 70X87 mm - IP44

- With spring lid
- Supplied with gasket
- Not suitable for product 570.0016 and 0116 (see page 273)

DESCRIPTION	STANDARD	PACK QTY.	CATALOGUE NUMBER
2P+E - 13A - 250V~	English (BS 1363)	10/100	570.4080



## SURFACE MOUNTING SOCKET FOR DOMESTIC APPLICATIONS

- Thermoplastic material
- The IP44 protection degree is reduced to IP20 when the lid is open

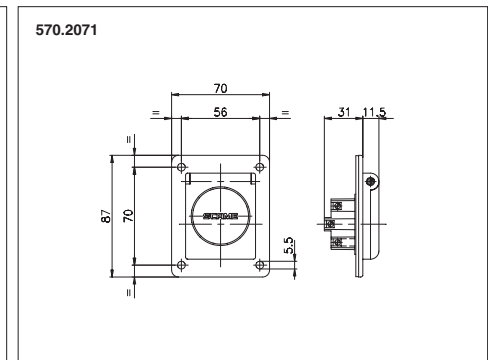
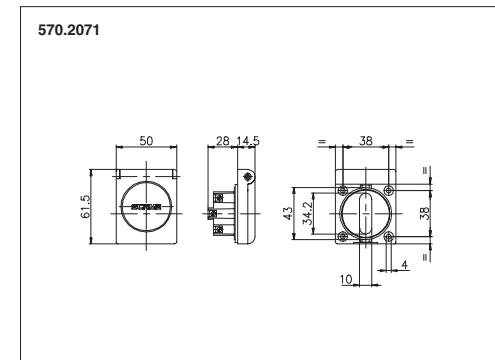
### FLANGE 70X87 mm - IP44 (\*)

- With spring lid
- Supplied with gasket
- Box already mounted product 570.0016 (see page 273) RAL7035 grey
- Blue socket outlet

DESCRIPTION	STANDARD	CABLE INLET	PACK QTY.	CATALOGUE NUMBER
2P+E - 16A - 250V~ (Pluristandard)	Italian/German	PG16	9/90	570.4151
		M20	9/90	570.M4151
2P+E - 16A - 250V~ (Unel)	German (VDE)	PG16	9/90	570.4161
		M20	9/90	570.M4161
2P+E - 16A - 250V~ (Dual-use)	Italian (CEI 23-16)	PG16	9/90	570.4171
		M20	9/90	570.M4171
2P+E - 16A - 250V~ (P30)	Italian	PG16	9/90	570.4181
		M20	9/90	570.M4181
2P+E - 16A - 250V~ (UTE)	French (NFC 61-303)	PG16	9/90	570.4191
		M20	9/90	570.M4191



(\*) New enclosure (see page 273)



(Dimensions in mm)



**Inspection tests**



Careful design checks before beginning automatic production ...but not only then!



**SWITCHED SOCKET  
OUTLETS WITH INTERLOCK**



**OMNIA System  
OMNIA Series  
ADVANCE2 System  
ADVANCE2 Series  
QUADRA Series**





## INTERLOCKED SWITCH SOCKET OUTLETS



### GENERAL DESCRIPTION

The technical characteristics of SCAME's wide range of interlocked-switch socket outlets have been carefully tailored to the intended end use of the product, and comply in full with EN 60309-1 (IEC309-1) and EN 60309-2 (IEC309-2) standards. They satisfy the most diverse electrical installation requirements, while improving the degree of safety and reliability in these installations.

The use of interlocked-switch socket outlets is growing steadily. By preventing the insertion and extraction of the plug when alive, connection occurs only under the best circuit conditions and therefore avoids any possibility of contacts giving off sparks which might cause danger to life and property.



## REFERENCE STANDARDS

**International Standard IEC 60309-1**  
**European Standard EN 60309-1**  
Plugs, socket outlets and couplers  
for industrial purposes  
Part 1: General requirements

**International Standard IEC 60309-2**  
**European Standard EN 60309-2**  
Plugs, socket outlets and couplers  
for industrial purposes  
Part 2: Dimensional interchangeability  
requirements for pin and contact-tube  
accessories of harmonised configurations.

## VERSIONS

SCAME produces three series of interlocked-switch socket outlets which integrate perfectly with the systems described in section 2.1 of this catalogue:

- **OMNIA System**  
Modular surface and flush mounting enclosures
- **OMNIA Series**  
Surface, flush and panel mounting socket outlets  
With mechanical interlock  
Without protective devices  
Rated current 16-32 A  
Rated voltage up to 690 V-
- **ADVANCE SYSTEM**  
Modular enclosures for combination units
- **ADVANCE Series**  
Surface mounting socket outlets  
With mechanical or electrical interlock  
With and without protective devices  
Rated current 16-32-63-125 A  
Rated voltage up to 690 V-
- **QUADRA Series**  
Surface mounting socket outlets  
With mechanical interlock  
Without protective devices  
Rated current 16-32 A  
Rated voltage up to 690 V-

## TECHNICAL INFORMATION

SCAME's interlocked-switch socket outlets have the following technical characteristics:

- Made in material that is resistant to abnormal heat and fire up to 650 °C (glow-wire test to IEC 60695-2-1)
- Dimensional stability under continuous operation from -25 °C to +60 °C
- Impact resistance: 6 Joule
- Non-aging elastomer seal
- Resistance to chemicals (water, saline solutions, acids, bases, mineral oils) and weathering
- Stainless steel quick turning locking screws

## MATERIALS

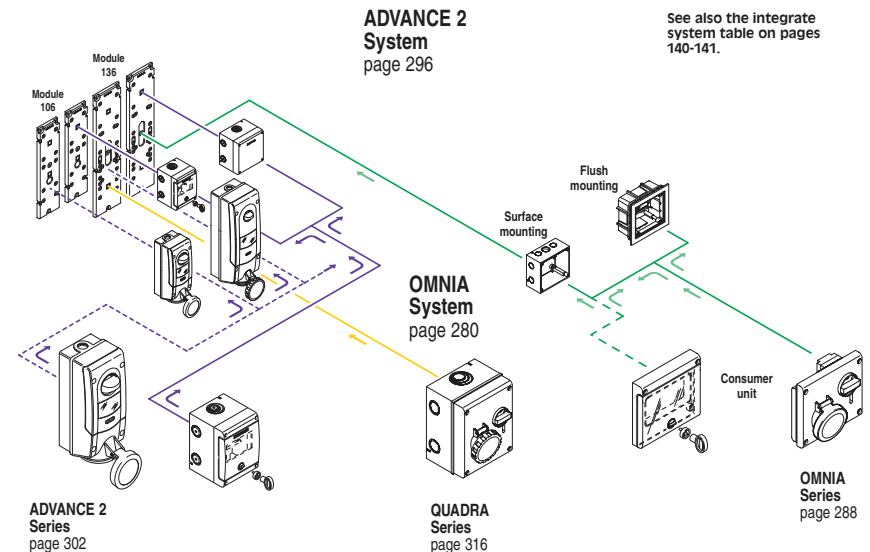
The enclosures of the SCAME interlocked-switch socket outlets are made of a halogen-free, insulating, impact-resistant, self-extinguishing, RAL 7035 grey engineering plastic. They can endure even the harshest climatic conditions, bad weather, sudden changes in temperature, impact or vibrations. The screws, pins and contact tubes undergo special treatment to ensure corrosion resistance in salty mist as prescribed by the standards:

- **UNI ISO 9227**  
"Corrosion tests in artificial atmospheres.  
Performance tests in salty mist"
- **UNI 3666**  
"Corrosion of metallic materials.  
General regulations concerning tests."

The tests were carried out under the following parameters:

- salty atmosphere: 5% NaCl
- test period: 300h
- test temperature: 25°C

The products remain operative after testing.



SCAME Interlocked-switch socket outlets integrated in ADVANCE and OMNIA Systems







### FLUSH AND SURFACE MOUNTING MODULAR SYSTEM

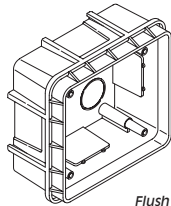


Ideally suited to installation needs in premises that require industrial sockets but where protrusion from the wall must be kept to a minimum, such as in kitchens, bars, public places, shops and business premises in general.

The OMNIA System includes:

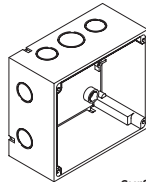
- a flush mounting box
- a surface mounting box

The **flush mounting box**, which is suitable for walled installations, can be combined both horizontally and vertically with any number of boxes by simply fitting them together with a special coupling insert. This also allows the cable to move easily from one box to the next.



Flush mounting box

The **surface mounting box** is designed for small external installations IP55. In the same flush or surface mounting box 16A and 32A interlocked-switch socket outlets in OMNIA Series IP44 or IP67 can be mounted.



Surface mounting box



Flush mounting combination unit.



Flush mounting combination with OMNIA Series interlocked-switch socket outlet.

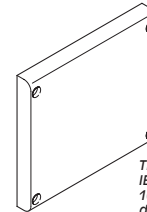
### VERSIONS

Both flush and surface mounting boxes can house:

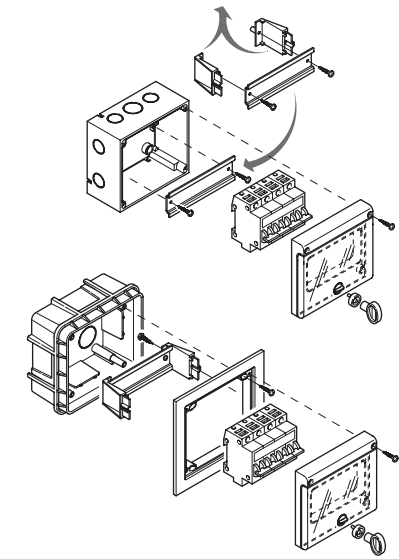
- A **flush mounting interlocked-switch socket outlet**, OMNIA Series from 16 A to 32 A, IP44 or IP67
- A **consumer unit** up to 6 DIN modules (17.5 mm)
- A **blank cover** to provide a junction box

A practical frame gives the flush mounted installation a professional finish and an attractive appearance.

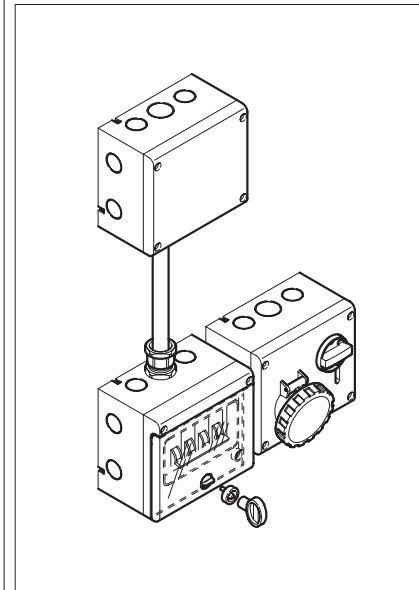
The design of the OMNIA System box enables it to change its functions as required, for example changing from a junction box to a consumer unit, from a consumer unit to an interlocked-switch socket outlet, etc.



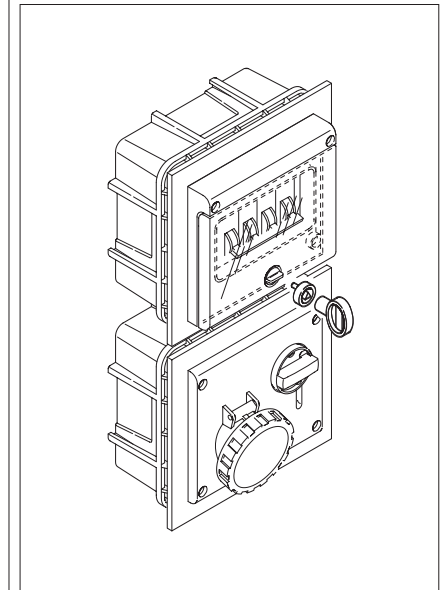
The cover allows for the installation of IEC309 and EUREKA Series socket outlets 16 A, 32 A and 63 A and 16 A sockets for domestic applications



Consumer unit with DIN window. Flush or surface mounting installation.



Surface mounting installations.



Flush mounting installation.



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Photos and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

### STRUCTURAL CHARACTERISTICS

#### Flush mounting box

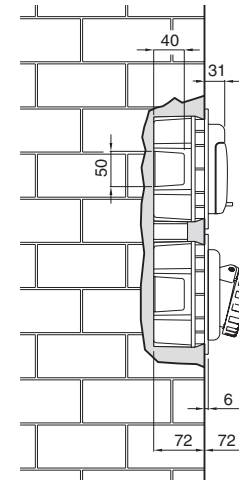
- a single box can be used for housing any of the interlocked-switch socket outlets of the OMNIA Series or for a 6 (\*) DIN modules consumer unit or for making up a junction box by using a blank cover.
- 4 rectangular knock-out side entries 53 X 40 mm
- 4x34 mm diameter entries that can be knocked out at the bottom
- coupling insert to provide a passage for the wires from one box to the next without requiring pipes, and for perfect alignment between the boxes

#### Surface mounting box

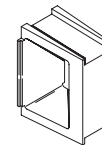
- A single box suitable for housing any of the interlocked-switch socket outlets of the OMNIA Series, or a consumer unit for 6 (\*) DIN modules or for making up a junction box by using a blank cover.
- Surface mounting by means of 4 slotted holes for easier centring or panel mounting by means of holes on the back of the box.
- Knockout holes on all sides: PG version
  - top: n° 2 x PG16 and n° 1PG 21
  - sides: n° 2 x PG16
  - bottom: n° 1 x PG21
  - back: n° 2 x PG16
- Knockout holes on all sides: metric version
  - top: n° 3 x M20 (M25)
  - sides: n° 2 x M20
  - bottom: n° 2 x M20 (M25)
  - back: n° 2 x M20 (M25)
- (the boxes may be used upside down)
- 2 notches for fastening the EN 50022 rail
- Draining holes on all four sides

### TECHNICAL CHARACTERISTICS

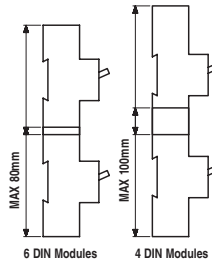
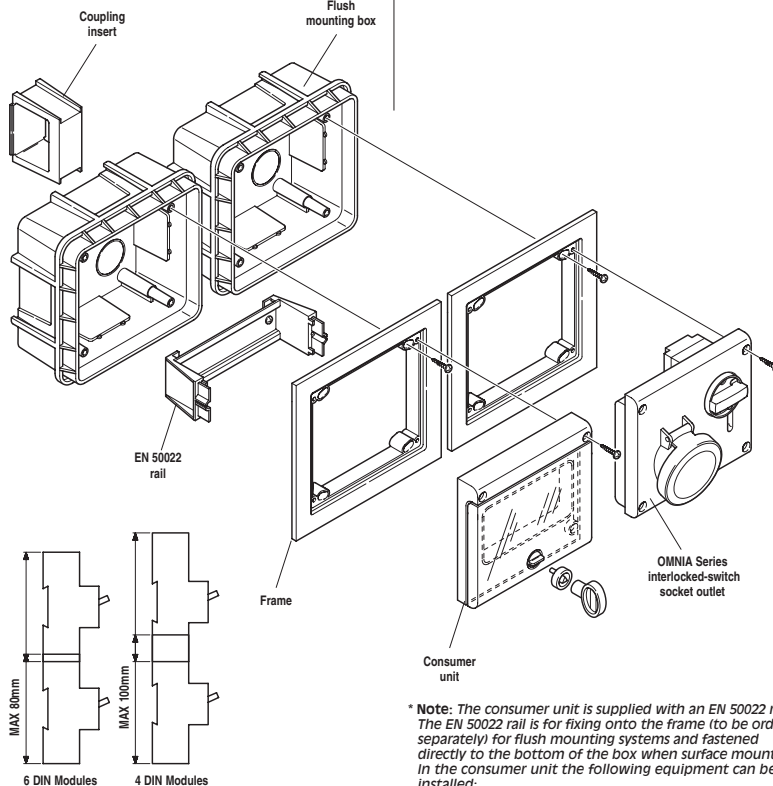
- Protection degree IP55 according to IEC 60529.
- Made of halogen-free self-extinguishing thermoplastic material. RAL 7035 grey, abnormal heat and fire resistant up to 650 °C (glow-wire test to IEC 695-2-1).
- Dimensional stability in continuous operation from -25 °C to +60 °C.
- Impact resistance: 6 Joule
- Resistance to chemicals (water, saline solutions, acids, alkaline, mineral oils) and weathering.
- Stainless steel quick action locking screws.
- Non-ageing elastomer seals.
- Compliance with IEC 60670 (only for boxes coupled to the consumer unit or with blank cover).



Flush mounting installation



Coupler for joining together flush mounting boxes. Several boxes can be combined for walling-in. It also provides easy passage for the cables.



- \* Note: The consumer unit is supplied with an EN 50022 rail. The EN 50022 rail is for fixing onto the frame (to be ordered separately) for flush mounting systems and fastened directly to the bottom of the box when surface mounting. In the consumer unit the following equipment can be installed:
- MCB up to 6 DIN modules
  - RCD up to 6 DIN modules
  - Combined circuit breakers (RCBO) up to 4 DIN modules
  - Modular equipment of up to 6 DIN modules



Example of a flush mounting combination: consumer unit, junction box and OMNIA Series interlocked-switch socket outlet. IP55 weatherproof.



Example of a surface mounting combination: consumer unit and OMNIA Series interlocked-switch socket outlet. IP55 weatherproof.





## ACCESSORIES

The OMNIA System comes complete with a kit with all fittings for installation.

Depending on the product purchased, the kit includes the coupler for joining together the surface mounting boxes, fastening screws and seals, the EN 50022 (17.5mm) rail if required, instructions and any other parts necessary for a proper installation.

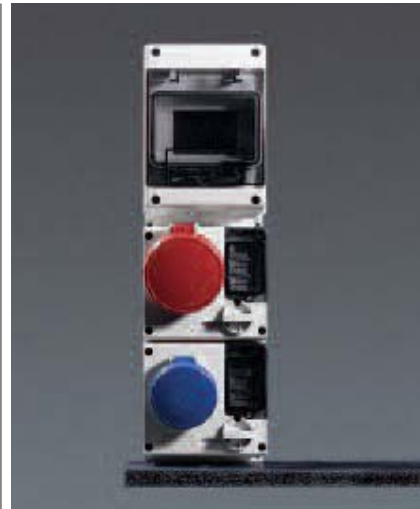
A protective cover is also available for ensuring IP20 on the back of the OMNIA Series Interlocked-switch socket outlet when panel mounted.

## SURFACE MOUNTING SYSTEM

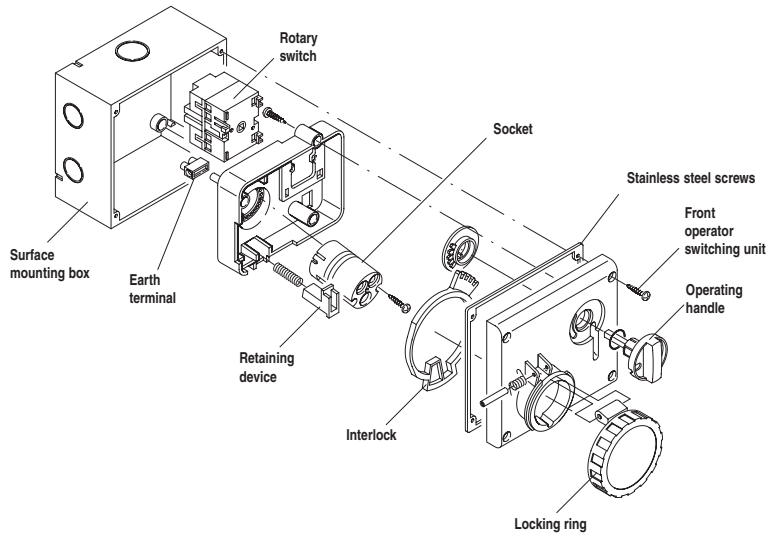
It is available with in an integral unit consisting of one distribution unit and two OMNIA interlock switch sockets fused or unfused.

The construction of these products guarantees a robust unit allowing separate removal of the distribution unit or the OMNIA switch interlocks and ensuring quick cabling of the unit.

It is possible to construct and assemble these units off site in workshops, enabling installation of units on site utilising the internal/external fixing holes and lugs the distribution unit will accept a blank cover to permit the use of the unit for other purposes ie as a junction box.(pag. 249).



Surface mounting system: consumer unit 6 DIN system version.



OMNIA Series  
Surface mounting socket outlet 2P+E - 16A - 6h - 220V-

## COMMON COMPONENTS

### CONSUMER UNIT ASSEMBLY KIT - IP55\*

- DIN modules and supports included
- Installation in the flush mounting box through the frame Art. 572.0220
- Complete with locking knob, triangular locking key and stainless steel fixing screws

DESCRIPTION	DIMENSIONS (mm)	POWER DISSIPATION	PACK QTY.	CATALOGUE NUMBER
6 DIN Modules	136x125x25	10W (+)	6	572.0120

The consumer unit can also be installed in the IP66 DOMINO Series surface mounting boxes (page 146)

(\*) When assembled together with the relevant component

(+) When joined with surface mounting box (product 572.0310 page 287).

Power calculated conforming to CEI 23-49 standards.

### BLANK PLATE - IP67\*

- Closes the cut-outs foreseen for OMNIA series flush mounting sockets with interlocking-switches
- With knock-out for panel mounting of 16A/32A/63A angled Sockets for EUREKA Series (from page 230) and IEC 309 Series (from page 260)
- Supplied complete with gasket for IP55 and 4 stainless steel screws
- RAL 7035 grey

DESCRIPTION	DIMENSIONS (mm)	PACK QTY.	CATALOGUE NUMBER
Flange 136 x 125mm	136x125x15	6	654.0120

(\*) When assembled together with the relevant component

### PROTECTION COVER - IP20

- For panel mounting of OMNIA series interlocked-switch socket outlets without fuse carrier
- Top and bottom cable entries
- Supplied with 2 fixing screws

DESCRIPTION	DIMENSIONS (mm)	PACK QTY.	CATALOGUE NUMBER
1 Cover kit	122x98x54	4	572.0330

### COVER WITH INSERT - IP55

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
OMNIA cover with insert "Living International", "Luna", "Light" and "Light Tech"	6	654.0121*
OMNIA cover with insert "Evolution"	6	654.0122

\* This module container is realized by authorization of the Bticino spa company and is suitable to house the "Living International", "Luna", "Light" and "Light Tech" modules which are registered trademarks owned by Bticino.



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



Trunking

## COMPONENTS FOR FLUSH MOUNTING INSTALLATION

### FLUSH MOUNTING BOX

- For the installation of OMNIA components in flush mounting applications
- With coupling insert

DESCRIPTION	DIMENSIONS (mm)	PACK QTY.	CATALOGUE NUMBER
1 box kit	160x149x72	6	572.0200

Except 32A fuse versions



### FRAME - IP55\*

- For the installation of flush mounting boxes (product 572.0200)
- Complete with gasket

DESCRIPTION	DIMENSIONS (mm)	PACK QTY.	CATALOGUE NUMBER
Kit 1 cornice	174x163x19	6	572.0220

(\*) When assembled together with the relevant component



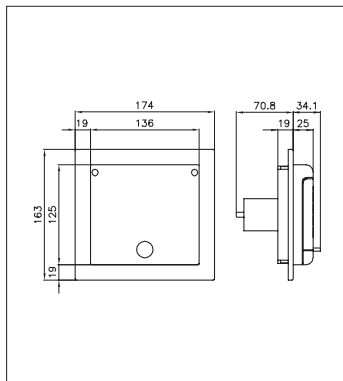
### COUPLING INSERT

- Necessary for joining OMNIA series flush mounting boxes (cat. no. 572.0200 page 248)
- Made of thermoplastic

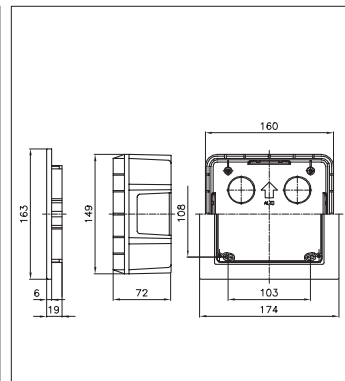
DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Coupling insert	6	572.0210



### CONSUMER UNIT AND FRAME



### FLUSH MOUNTING BOX AND FRAME



## COMPONENTS FOR SURFACE MOUNTING INSTALLATION

### SURFACE MOUNTING BOX - IP67\*

- For the installation of OMNIA interlocked sockets cat. no. 400, 401, 405 and 406 (pages 291-293), consumer units cat. no. 572.0120 (page 285) or blank plate cat. no. 654.0120 (page 285)

DESCRIPTION	DIMENSIONS (mm)	POWER	CABLE INLET	PACK QTY.	CATALOGUE NUMBER	
1 box kit	136x275	(63A)	-	METRIC	1	572.M0308
	135x125x70	(16 e 32A)	10W (*)	PG	6	572.0310
			METRIC	6		572.M0310

(\*) When assembled together with the relevant component.  
 (\*) When joined with consumer unit (product 572.0120 page 285). Power calculated conforming to CEI 23-49 standards. Except 32A fuse versions  
 Not suitable for items 400.2416 and 405.2416



### SURFACE MOUNTING SYSTEM - IP66\*

- Accepts from 2 to 4 embedded OMNIA Series sockets, groups 400 and 405, (page 291), from 2 to 4 embedded OMNIA Series sockets with fuse box base, groups 401 and 406, (page 293), or hole-covering masks, item 654.0120 (page 285)

DESCRIPTION	DIMENSIONS (mm)	OMNIA	PACK QTY.	CATALOGUE NUMBER
"Consumer unit 6 DIN" system	136x472x146	12W (*)	2	572.0311
"Blank plate" system	136x472x146	-	2	572.0312
"Consumer unit 6 DIN" system	136x616x146	12W (*)	3	572.0313
"Blank plate" system	136x616x146	-	3	572.0314
"Blank plate" system	287x408x146	-	4	572.0316

(\*) When assembled together with relevant component  
 (\*) Power calculated conforming to CEI 23-49 standards

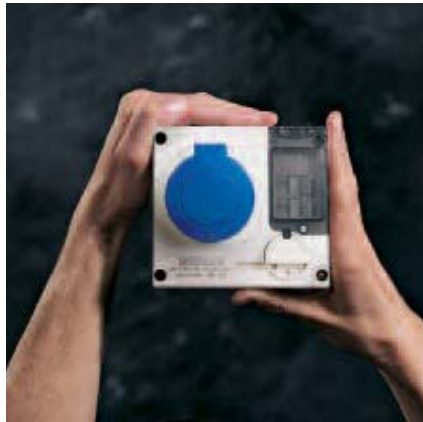


See DOMINO System (page 144) for other containers suitable to house OMNIA Series sockets.





### SWITCHED SOCKET OUTLETS WITH INTERLOCK



OMNIA Series, in surface mounting and flush mounting versions without protective devices, is designed for industrial use and could also be used commercially with its attractive appearance and reduced size.

#### VERSIONS AVAILABLE

- Surface mounting
- Flush mounting and panel mounting
- Without fuse holder
- Rated voltage: up to 690V ~
- Rated current: 16A and 32A
- Protection degree: P44 and IP67

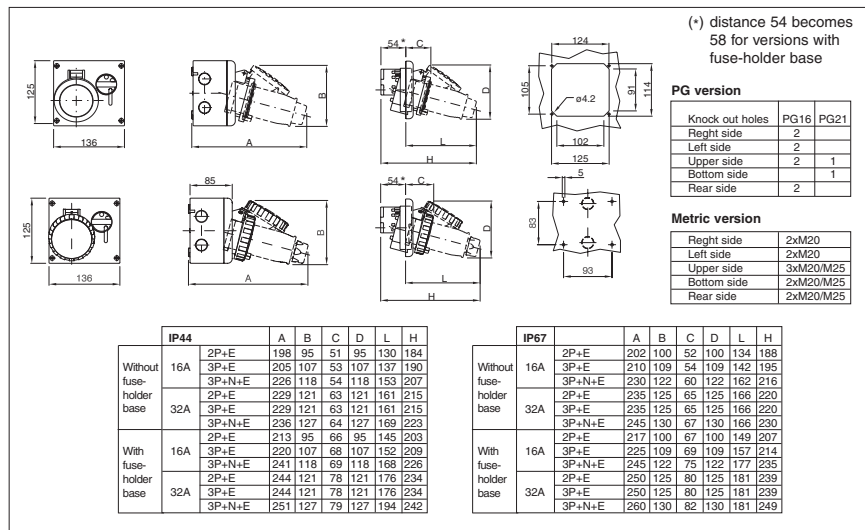
### STRUCTURAL CHARACTERISTICS

- Overall dimensions are the same for both 16A and 32A versions
- Fuses: gG 10,3x38 mm
- Surface mounting version can be installed in the modular base (module 136) of the ADVANCE System (pages 224-225).
- Flush mounting version with box of 70 mm depth, including frame to hide imperfections in the plastering
- Panel mounting version can be installed in DOMINO System enclosures (page 94).
- On the back of the base of the surface mounting socket are bases for fixing to the panel.
- There are knockouts for cable inlets in the base and in the following dimensions  
Upper surface: 1 PG21 Ø29 and 2 PG16 Ø23  
Lower surface: 1 PG21 Ø29  
Side surfaces: 2 PG16 Ø23  
Back surfaces: 2 PG16 Ø23
- Possibility to block the switch in closed and open position
- Mechanical interlock that prevents the switch from closing if the plug is not inserted, the extraction of the plug if the switch is closed and the opening of the socket outlet cover if the switch is closed.

Accessory for panel mounting, a special covering that can be fixed with 2 screws and ensures protection degree IP20 for the back part of the installation.

#### OMNIA Series can be incorporated into:

- OMNIA System (page 242)
- ADVANCE 2 System, module 136 (page 256)
- DOMINO System (from page 112)



(dimensions in mm)

### ELECTRICALLY INTERLOCKED VERSION Extra low voltage <50V

#### Reference standards: IEC 60309-1 and IEC 60309-2

- With electrical interlock that works on the transformer primary, or if well connected, can activate relay and contactors.

- Approvals: from page 587
- Systems: OMNIA (page 280)

#### PANEL MOUNTING

DESCRIPTION	SOCKET	COLOUR	h	RATED VOLTAGE	PACK QTY.	IP44 CATALOGUE NUMBER	IP67 CATALOGUE NUMBER
With transformer* (1)	2P-16A	Blue	-	20-25V~	6	400.2416	405.2416
		White	12	40-50V~	6	400.2420	405.2420
Without transformer (2)	2P-32A	Blue	-	20-25V~	6	400.2620	405.2620
		White	12	40-50V~	6	400.2621	405.2621

When the plug is inserted a micro-switch turns on that closes the circuits

\*Unsuitable for 572.0310 and 572.M0310 boxes

#### SURFACE MOUNTING(▲)

DESCRIPTION	SOCKET	COLOUR	h	RATED VOLTAGE	PACK QTY.	IP44 CATALOGUE NUMBER	IP67 CATALOGUE NUMBER
Without transformer (2)	2P-16A	Blue	-	20-25V~	6	500.2420	505.2420
		White	12	40-50V~	6	500.2421	505.2421
	2P-32A	Blue	-	20-25V~	6	500.2620	505.2620
		White	12	40-50V~	6	500.2621	505.2621

When the plug is inserted a micro-switch turns on that closes the circuits

- (▲) The OMNIA Series surface mounting are also available in a Metric cable inlet.  
Add M after the first three digits (ex. 500.M2420).

#### NOTE

In ADVANCE2 System, use version with METRIC cable inlet

(1) SELV Transformer Ⓢ 220/24V~ 150VA (continuous duty).

(2) The versions without transformer are particularly suitable for installations with centralised extra-low voltage transformer.



## SWITCHED SOCKET OUTLETS WITH INTERLOCK

Rated voltage > 50 V

Reference standard IEC 60309-1 and IEC 60309-2

- Without fuse carrier
- Can be padlocked

- Approvals: from page 587
- Switches as spare parts: page 325

(▲) The OMNIA Series surface mounting are also available in a Metric cable inlet. For ordering add M after the first three digits (ex. 500.M1670).

NOTE  
In ADVANCE2 System, use version with METRIC cable inlet

### SURFACE MOUNTING

		(▲)		(▲)	
		IP44		IP67	
Poles	Colour	16 A	32 A	16 A	32 A
2P+E	50/60	6	6	6	6
	50/60	6	6	6	6
	50/60	9	9	9	9
	60	5	5	5	5
	50/60	7	7	7	7
	50/60	12	12	12	12
	>300-500	2	2	2	2
	c.c.	3	3	3	3
3P+E	50/60	4	4	4	4
	50/60	9	9	9	9
	50/60	6	6	6	6
	60	11	11	11	11
	50/60	7	7	7	7
	50/60	5	5	5	5
	50/60	12	12	12	12
	50/60	3	3	3	3
	100-300	10	10	10	10
	>300-500	2	2	2	2
3P+N+E	50/60	4	4	4	4
	50/60	9	9	9	9
	50/60	6	6	6	6
	50/60	7	7	7	7
	50/60	5	5	5	5
	60	11	11	11	11
	50/60	3	3	3	3
	>300-500	2	2	2	2
	50/60	4	4	4	4
	50/60	9	9	9	9
50/60	6	6	6	6	
50/60	7	7	7	7	
50/60	5	5	5	5	
60	11	11	11	11	
50/60	3	3	3	3	
>300-500	2	2	2	2	

### FLUSH MOUNTING \*

		(*) (*)					
		IP67		IP44(Δ)		IP67(Δ)	
Poles	Colour	16 A	32 A	16 A	32 A	16 A	32 A
63A	6	6	6	6	6	6	6
	9	9	9	9	9	9	9
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	12	12	12	12	12	12	12
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	8	8	8	8	8	8	8
	4	4	4	4	4	4	4
	9	9	9	9	9	9	9
63A	6	6	6	6	6	6	6
	9	9	9	9	9	9	9
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	12	12	12	12	12	12	12
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	8	8	8	8	8	8	8
	4	4	4	4	4	4	4
	9	9	9	9	9	9	9
63A	6	6	6	6	6	6	6
	9	9	9	9	9	9	9
	6	6	6	6	6	6	6
	7	7	7	7	7	7	7
	12	12	12	12	12	12	12
	2	2	2	2	2	2	2
	3	3	3	3	3	3	3
	8	8	8	8	8	8	8
	4	4	4	4	4	4	4
	9	9	9	9	9	9	9

(\*) These articles are only available with METRIC cable inlet (Δ) The product must be installed with the relative component (ex., wall box 572.M0308).  
 (\*) Supplied with stainless steel fixing screws It is downgraded to IP55 when fastened onto a sufficiently rigid panel.

- Plugs and sockets
- Adaptors
- Domestic cablelets
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

WITH FUSE HOLDER

## SWITCHED SOCKET OUTLETS WITH INTERLOCK

Rated voltage > 50 V

Reference standard IEC 60309-1 and IEC 60309-2

- With fuse holder (10,3x38)
- Can be padlocked

- Approvals from page 587
- Switches as spare parts page 325

(▲) The OMNIA Series surface mounting are also available in a Metric cable inlet. Add M after the first three digits (ex. 501.M1670).

NOTE  
In ADVANCE2 System, use version with METRIC cable inlet

Poles	Hz	Volt	Colour	h.	Pack qty.			
					16 A	32 A	16 A	32 A
2P+E	50/60	100-130	Yellow	4	501.1670	501.M3270 #	506.1670	506.M3270 #
	50/60	200-250	Blue	6	501.1683	501.M3283 #	506.1683	506.M3283 #
	50/60	380-415	Red	9	501.1678	501.M3278 #	506.1678	506.M3278 #
	60	277	Grey	5	501.16837		506.16837	
	50/60	480-500	Grey	7	501.16836		506.16836	
	50/60	is. transf.	Grey	12	501.16833		506.16833	
	>300-500	>50	Green	2	501.16832		506.16832	
	c.c.	>50-250	Grey	3	501.16834		506.16834	
	c.c.	>250	Grey	8	501.16838		506.16838	
	3P+E	50/60	100-130	Yellow	4	501.1672	501.M3272 #	506.1672
50/60		200-250	Blue	9	501.1674	501.M3274 #	506.1674	506.M3274 #
50/60		380-415	Red	6	501.1686	501.M3286 #	506.1686	506.M3286 #
60		440-460	Red	11	501.16865		506.16865	
50/60		480-500	Grey	7	501.16866		506.16866	
50/60		600-690	Black	5	501.16867		506.16867	
50/60		is. transf.	Grey	12	501.16863		506.16863	
50/60		380/440	Red	3	501.16864		506.16864	
100-300		>50	Green	10	501.16861		506.16861	
>300-500		>50	Green	2	501.16862		506.16862	
3P+N+E	50/60	100-130	Yellow	4	501.1679	501.M3279 #	506.1679	506.M3279 #
	50/60	208-250	Blue	9	501.1675	501.M3275 #	506.1675	506.M3275 #
	50/60	346-415	Red	6	501.1687	501.M3287 #	506.1687	506.M3287 #
	50/60	480-500	Grey	7	501.16876		506.16876	
	50/60	600-690	Black	5	501.16877		506.16877	
	60	440-460	Red	11	501.16875		506.16875	
	50/60	380/440	Red	3	501.16874		506.16874	
	>300-500	>50	Green	2	501.16872		506.16872	

(#) These articles are only available with METRIC cable inlet and raised enclosure

WITH FUSE HOLDER

## FLUSH MOUNTING\*

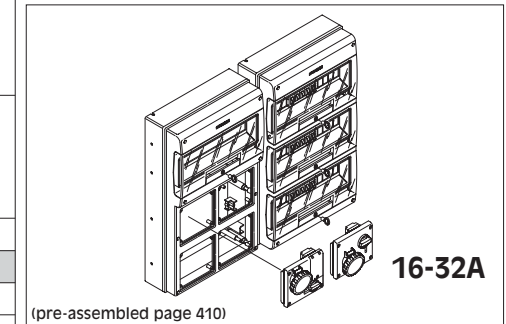
IP44		IP67	
16 A	32 A	16 A	32 A
401.1670	401.3270	406.1670	406.3270
401.1683	401.3283	406.1683	406.3283
401.1678	401.3278	406.1678	406.3278
401.16837		406.16837	
401.16836		406.16836	
401.16833		406.16833	
401.16832		406.16832	
401.16834		406.16834	
401.16838		406.16838	
401.1672	401.3272	406.1672	406.3272
401.1674	401.3274	406.1674	406.3274
401.1686	401.3286	406.1686	406.3286
401.16865		406.16865	
401.16866		406.16866	
401.16867		406.16867	
401.16863		406.16863	
401.16864		406.16864	
401.16861		406.16861	
401.16862		406.16862	
401.1679	401.3279	406.1679	406.3279
401.1675	401.3275	406.1675	406.3275
401.1687	401.3287	406.1687	406.3287
401.16876		406.16876	
401.16877		406.16877	
401.16875		406.16875	
401.16874		406.16874	
401.16872		406.16872	

(\*) Supplied with stainless steel fixing screws

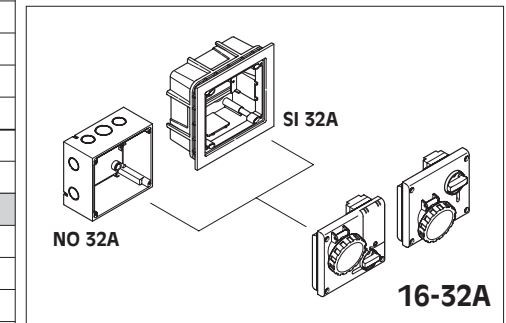
## OMNIA SERIES

The heart of SCAME's systems

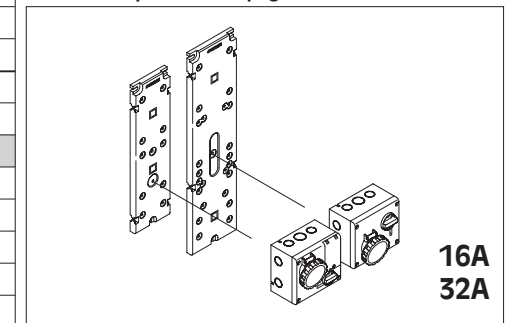
### DOMINO System (from page 144)



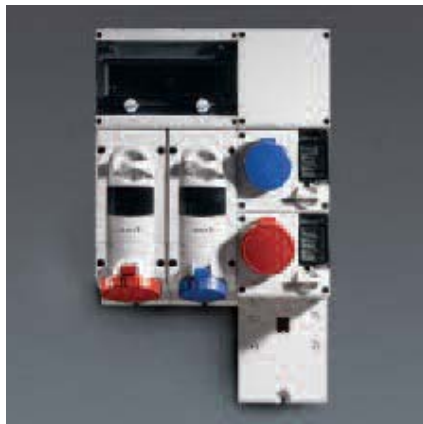
### OMNIA System (from page 280)



### ADVANCE 2 System (from page 294) - METRIC cable inlet



## MODULAR SYSTEM FOR COMBINATION UNITS



The new, completely IMQ-certified, system by Scame has been mainly designed for industrial purposes. It consists of two bases (module 106 and module 136), which can be provided with interlocked sockets made in two 16/32A and 63A containers. The reduced number of versions in only two sizes is the solution to manifold planning and installing problems, assembling very few elements and easy maintenance.

## VERSIONS

The whole ADVANCE 2 system is based on two standard widths, 106 and 136 mm, which are produced in two different modules:

- **MODULO 106** here defined as "compact"
- **MODULO 136** here defined as "large"

Both modules are also available in the HD (Heavy Duty) version, which is made with high mechanical features and resistant to chemical agents. It has been designed for heavy use.

ADVANCE 2 System consists of the following:

- no. 2 modular supports having the sizes below:  
106 x 434 (Compact)  
136 x 584 (Large)
- Many connector blocks and set housing boxes with modular length of 106 and 136 mm.

## COMPATIBILITY

No incompatibility has occurred with all SCAME systems installed up to now for the innovative ADVANCE 2 series. This continuance is precious. In fact, it also allows using the new range of products for the maintenance of already existing interlocked batteries.

The ADVANCE 2 System cable inlet is of "METRIC" type; the components of the ADVANCE and OMNIA Systems and Series are of "PG" type.

Compatibility is anyway ensured, even if the metric inlets shall be adjusted to PGs during the installation.

For the OMNIA Series, we advise to use performances with metric inlet (cat. number .Mxxxx).

## STRUCTURAL CHARACTERISTICS

The boxes are provided on all sides with knock-out holes for M25 and M40 and are available in the following versions:

- one-module blank
- two-module blank
- one-module with tinted window
- two-module with tinted window
- one-module with cutouts

(with provision for mounting 16 A and 32 A IEC309 Series flush-mounting socket outlets and socket outlets for domestic applications).

The box with tinted window is provided with rail for 4, 6, 10 and 13 DIN modules (17.5 mm), suitable for holding 53, 68 and 90-mm high modular devices.

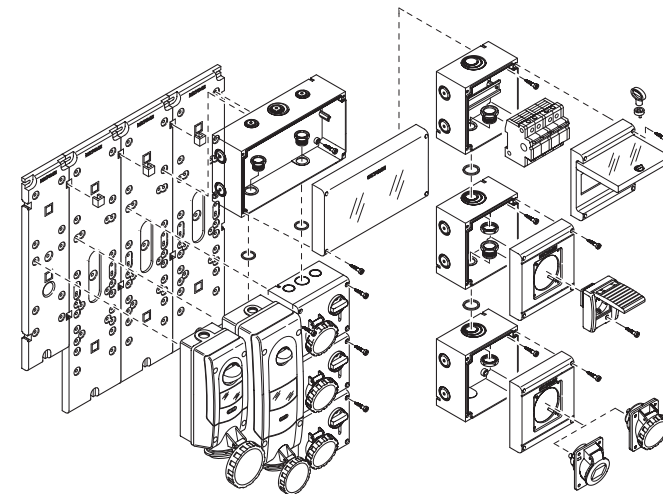
The closing knob can be replaced with a triangular lock.

All fastening screws are made of stainless steel and have quick-action screws. The system components can be coupled using couplers size M25 or M40 which ensure protection degree IP66.

## TECHNICAL CHARACTERISTICS

- Protection degree IP66 to IEC 60 529 and CEI 70-1
- Made of halogen-free self-extinguishing thermoplastic material. RAL 7035 grey, abnormal heat and fire resistant up to 650 °C (glow-wire test to IEC 60 695-2-1)
- Seals made of non-ageing elastomer.
- Dimensional stability in continuous operation from -25 °C to +60 °C.
- Impact resistance: 6 Joule
- Resistance to chemicals (water, saline solutions, acids, alkaline, mineral oils) and weathering.
- Reference standards IEC 60670.

		JUNCTION BOXES	WITH ADVANCE2 COMPACT	WITH ADVANCE2 LARGE	DIFFERENT COMBINATIONS WITH ADVANCE2 AND OMNIA SOCKET OUTLETS	
MODULE 106	COMPACT cod. 576.4300					
	LARGE cod. 576.4340					
MODULE 136						







## HD - HEAVY DUTY PRODUCTS



This designation refers to a series of SCAME products made of special polymer alloys, the result of lengthy research and testing both in the laboratory and in the field.

The HD SCAME products are:

- **HD ADVANCE 2 System**, weatherproof boxes and bases for combination units.
- **HD ADVANCE 2 Series**, weatherproof interlocked-switch socket outlets with fuse carrier or DIN rail 16 to 63 A.

The materials used have excellent resistance to ambient conditions such as humidity, steam, saline or acid fumes. The performance of the products is therefore unaffected and remains unchanged over time.



## HD ADVANCE 2 System

It consists of the same boxes as the ADVANCE 2 System, except that the HD version is of a special polymer alloy which provides considerable resistance to environmental conditions.

All the screws are made of stainless steel. There are no transparent windows in the HD range. The colour of the base and the cover is RAL 7004 grey. The protection degree is IP66. The knob of the window can be replaced with a lock and key, supplied in the accessories kit of each article. The kit also includes cable glands and couplers, insulating caps to provide double insulation and screws for closing down and fastening onto the base.

### FIELDS OF APPLICATION

The products of the HD ADVANCE System can be used safely and reliably in the following fields:

- Heavy mechanical industry (rolling mills, furnaces, mines or steelworks)
- Chemical and petrochemical industry (oil refineries, waste disposal plants, transforming plants, off-shore platforms) not for use in "explosive atmospheres"
- Food industry
- Ports and docks
- Agricultural applications
- Airports

The ambient conditions for the use of these products are:

- Operating temperature according to the reference standard: -25°C +40°C
- Max operating temperature: 60°C
- Relative humidity : up to 100%
- Ambient salinity : 5% NaCl 90% U.R.
- IK degree at 20°C: IK7

## CHARACTERISTICS OF THE HD MATERIAL:

The chemical and physical characteristics of the material used for HEAVY DUTY boxes are listed as well as relevant reference standards and the chemical compounds they guarantee protection from.

CHARACTERISTIC	VALUE	STANDARD
Load deformation temperature	100°C	ISO 75Be
Flexural stress	1850 MPa	ISO 178
IZOD Impact tes	50 kJ/m²	ISO 180 1/A
Dielectric rigidity	18kV/mm	IEC 60 243 - ASTM D149
Self-extinguishing properties (glow-wire)	850°C	IEC 60 695-2-1
Self-extinguishing (UL 94)	HB (1,6 mm) V1 (3,00 mm)	UL 94
Cold impact -40°C (on thicknesses > 2mm)	>20J	

Excellent stability to the following chemical compounds:

**Acids:** 10% hydrochloric acid, 30% sulphuric acid, 10% acetic acid.

**Alkaline:** 10% sodium hydroxide (caustic soda), 10% potassium hydroxide.

**Organic solvents:** ethyl alcohol, isopropyl alcohol, ethylene glycol.

**Oils and fuels for motor-vehicles:** engine, brake, gear oil; 2-star petrol, 4-star petrol, leadfree petrol.

**Salts:** 5% sodium chloride, 10% zinc chloride, 10% calcium chloride.

The following compounds should be avoided:

**Organic solvents:** acetone, methylene chloride, ethyl acetate.

**Alkaline:** 10% ammonium hydroxide.



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Photos and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

### MODULAR SYSTEM FOR COMBINATION UNITS - IP66 Surface mounting

Reference standard: IEC 60670, CEI 23-48 (enclosures) and CEI 23-49

- Dimensions : see pages 300-301
- Accessories : cover sealing kit (made up of 2 special screws, 2 sealed caps, 2 seals and strip of wire - art. 654.0032 / 25 pcs)

#### MODULE 106 (compact)

- Modularity:  
ADVANCE 2 Series compact (from page 304)

### MODULAR BASES Complete with inserts for joining several bases

	<b>16A 32A</b>
<b>COMPACT</b>	
PACK QTY..	CAT. NUMBER
12	576.4300

	<b>16A 32A 63A</b>
1 ADVANCE 2 QUADRA 3 OMNIA (16-32A)	
<b>LARGE</b>	
PACK QTY..	CAT. NUMBER
6	576.4340

	<b>16A 32A</b>
<b>COMPACT</b>	
PACK QTY..	CAT. NUMBER
12	578.4300

	<b>16A 32A 63A</b>
<b>HD LARGE</b>	
PACK QTY..	CAT. NUMBER
6	578.4340

#### MODULE 106 (compact)

- Modularity:  
ADVANCE 2 HD Series compact (from page 304)
- Features referring to Heavy Duty Products are shown on pages 296-297

#### MODULE 136 (Large)

- Modularity:  
ADVANCE 2 HD Series compact and large (from page 304)
- Features referring to Heavy Duty pages 296-297

STANDARD

HEAVY DUTY

**Note:** The enclosure are supplied with screws for fastening the lid and mounting to the boxes; the kit also includes, metric coupler, seals and nuts: In order to carry out precise performance for metric shunt boxes, we recommend the use of stepped milling cutter.

### ENCLOSURES - IP66

One-module with cut out    One-module plain lid    Two-modules plain lid    One-module with window    Two-modules with window

			 Power dissipation (*) <b>8W</b>	 Power dissipation (*) <b>14W</b>
<b>FLANGE 70x87</b>			<b>4 DIN</b>	<b>10 DIN</b>
PACK QTY.	CATALOGUE NUMBER	PACK QTY.	CATALOGUE NUMBER	PACK QTY.
12	Ⓢ 576.4303	12	Ⓢ 576.4301	6

			 Power dissipation (*) <b>9W</b>	 Power dissipation (*) <b>17W</b>
<b>FLANGE 70x87</b>	<b>#</b>		<b>6 DIN</b>	<b>13 DIN</b>
PACK QTY.	CATALOGUE NUMBER	PACK QTY.	CATALOGUE NUMBER	PACK QTY.
12	Ⓢ 576.4323	12	Ⓢ 576.4321	6

			 Power dissipation (*) <b>8W</b>	 Power dissipation (*) <b>14W</b>
			<b>4 DIN</b>	<b>10 DIN</b>
	PACK QTY.	CATALOGUE NUMBER	PACK QTY.	CATALOGUE NUMBER
	12	Ⓢ 578.4301	6	Ⓢ 578.4304

			 Power dissipation (*) <b>9W</b>	 Power dissipation (*) <b>17W</b>
			<b>6 DIN</b>	<b>13 DIN</b>
	PACK QTY.	CATALOGUE NUMBER	PACK QTY.	CATALOGUE NUMBER
	12	Ⓢ 578.4321	6	Ⓢ 578.4324

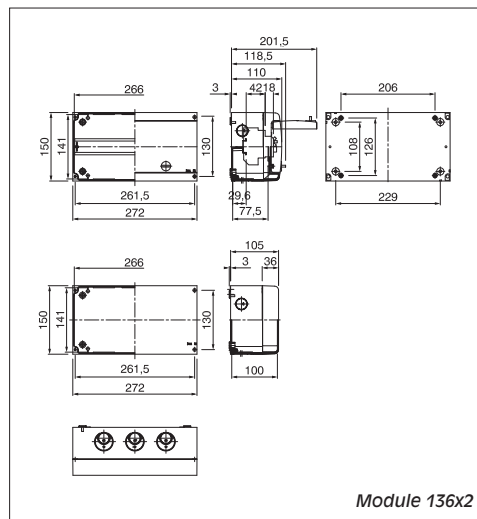
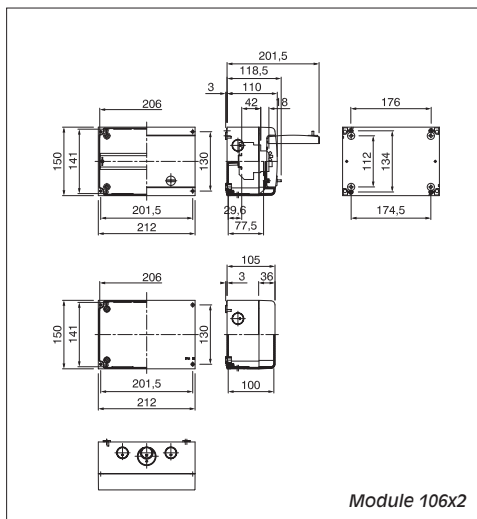
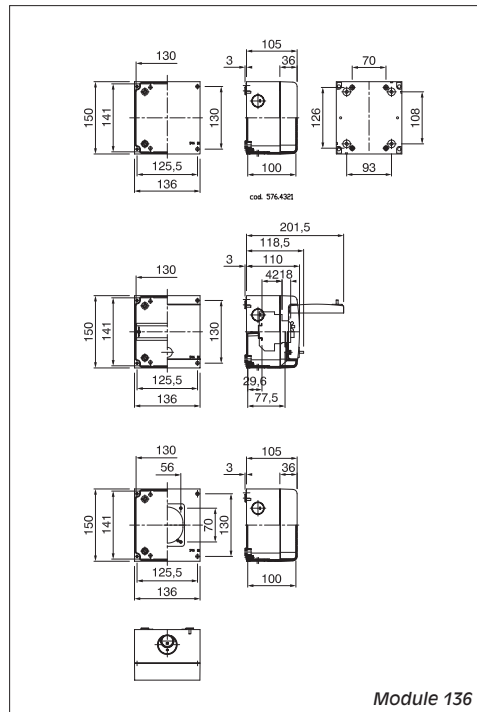
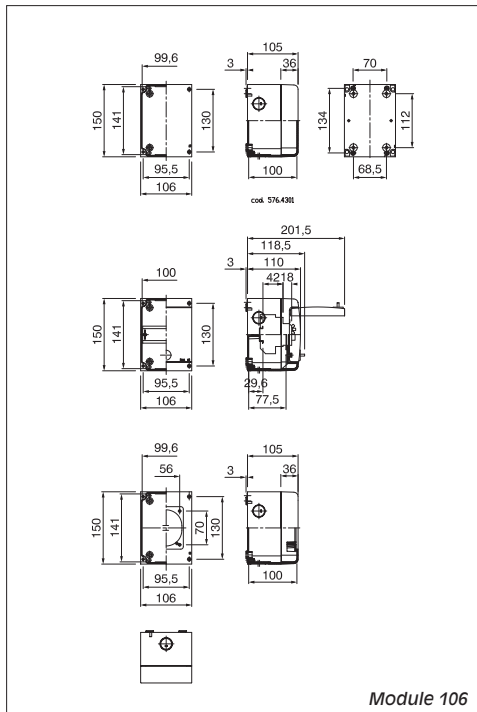
(\*) Power calculated according to CEI 23-49 (Italian standard)

(#) Also available drilled. It is suitable for rotary switches (cat. number 576.4390, pack qty. 6)

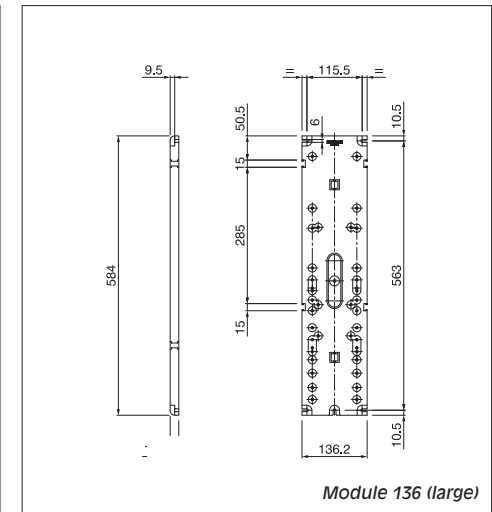
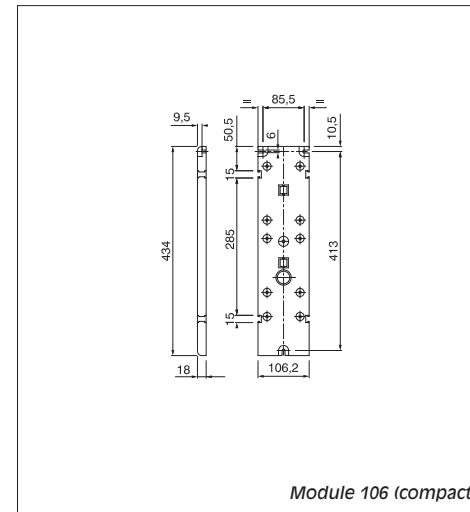
The Heavy Duty products are suitable to heavy working conditions and are also resistant to highly salty environments.

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Photos and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

## JUNCTION BOXES



## MODULAR BASES



Plugs and sockets



Adaptors



Domestic cabletrays



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



Trunking

(dimensions in mm)



### SWITCHED SOCKET OUTLETS WITH INTERLOCK



The picture shows:  
 - Heavy Duty socket (RAL 5015 blue front side and dark grey RAL 7004 body).  
 - Standard socket (grey RAL 7035 front side and smoke-grey plate).

### GENERAL DESCRIPTION

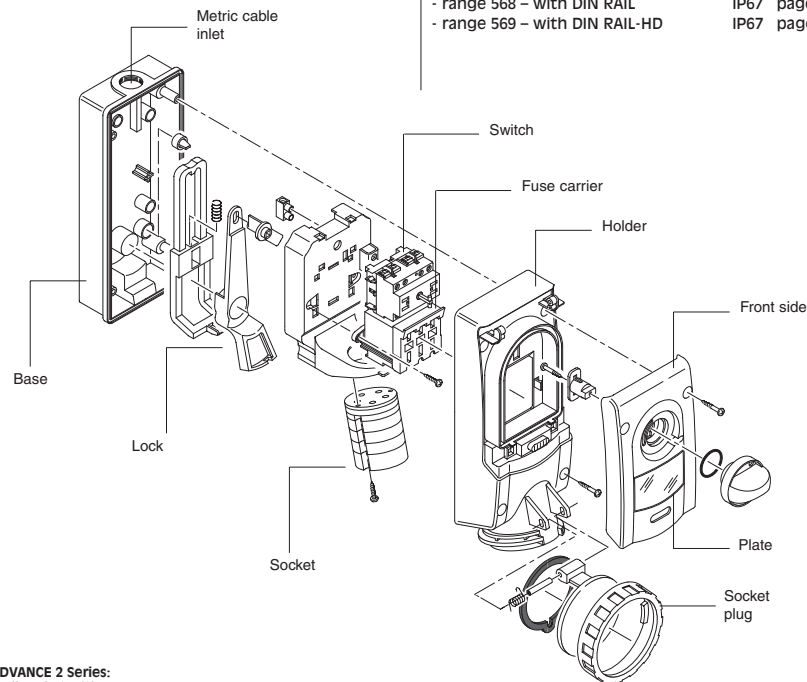
SCAME, ADVANCE 2 Series, interlocked socket outlets have smooth and well-connected surfaces, with no sharp edge or lines, included the hand grip, which ensure top safety and ergonomic use as well as easy cleaning, being installed in environments that particularly need such requirement.

A vertical convex strip symmetrically runs along the front side, gathering the handgrip control, which can be also provided with lock, the transparent opening for the monitoring of switches or protective fuses that connect down with the socket, following the round profile of the cover and being a sort of functional axis of the product.

The small window has been installed by overprinting. It allows maintaining the IP67 degree of protection without using any gasket or shutter, with perfectly smooth surfaces.

### PERFORMANCES

- range 560 – without fuse carrier	IP44	page 304
- range 561 – without fuse carrier	IP67	page 305
- range 562 – with fuse carrier	IP44	page 306
- range 563 – with fuse carrier	IP67	page 307
- range 564 – with fuse carrier-HD	IP67	page 307
- range 565 – very low voltage		page 311
- range 566 – very low HD voltage		page 311
- range 567 - with DIN RAIL	IP44	page 308
- range 568 – with DIN RAIL	IP67	page 309
- range 569 – with DIN RAIL-HD	IP67	page 309



ADVANCE 2 Series:  
 Wall socket with mechanical lock.

### TECHNICAL CHARACTERISTICS

- Protection degree: IP44 – IP67
- Threaded cable inlet with possible in-out device on the bottom.
- Complete interchangeability with the installed product.
- Grip can be locked.
- Screwless plate.
- Plate with overprinted window.
- Seals made by co-printing and skimming.
- Use of socket plugs with rubber gaskets.
- Reduced number of versions in two dimensions only.
- A complete range of products for custom build planning and installing solutions.
- Up to 6 modules that can be installed in the versions with DIN slide.
- Improved mechanical interlocking system.
- Very few elements to be assembled for easy and quick installing and maintaining operations.
- Provided with ground clamp firmly anchored to the base.
- Ample room for cabling.
- Fuses: gG 10,3x38 mm (16-32A) Neozed type D02 (63A)

### METRIC CABLE INLET

- Compact version 16A & 32A
  - 1 M25 threaded on upper side
  - 2 marks for M20 on lower side
  - 1 back mark
  - Provided with cable gland M25
- Large version 16A & 32A
  - 1 M25 threaded on upper side
  - 2 marks for M20 on lower side
  - 1 back mark
  - Provided with cable gland M25
- 63A large version
  - 1 M40 threaded on upper side
  - 2 marks for M32 on lower side
  - 1 back mark
  - Provided with cable gland M40

NOTE: features referring to Heavy Duty products are shown on page 296-297



WITHOUT FUSE HOLDER

## SWITCHED SOCKET OUTLETS WITH INTERLOCK

Surface mounting - Rated operating voltage >50 V

Reference standards: IEC 60309-1 and IEC 60309-2

- Dimensions: pages 314-315
- Approvals: from page 587
- Systems: ADVANCE 2 (from page 298)
- Switches: page 325

Format:  
Cable Gland:  
Pack qty.:

Poles	Hz.	Volt	Colour	h.
2P+E	50/60	100-130	Yellow	4
	50/60	200-250	Blue	6
	50/60	380-415	Red	9
	60	277	Grey	5
	50/60	480-500	Grey	7
	50/60	is. transf.	Grey	12
	>300-500	>50	Green	2
	c.c.	>50-250	Grey	3
	c.c.	>250	Grey	8
3P+E	50/60	100-130	Yellow	4
	50/60	200-250	Blue	9
	50/60	380-415	Red	6
	60	440-460	Red	11
	50/60	480-500	Grey	7
	50/60	600-690	Black	5
	50/60	is. transf.	Grey	12
	50/60	380/440	Red	3
	100-300	>50	Green	10
	>300-500	>50	Green	2
	3P+N+E	50/60	100-130	Yellow
50/60		208-250	Blue	9
50/60		346-415	Red	6
50/60		480-500	Grey	7
50/60		600-690	Black	5
60		440-460	Red	11
50/60		380/440	Red	3
>300-500		>50	Green	2

IP44

16A compact M25 1/12	32A compact M25 1/12
560.1670	560.3270
560.1683	560.3283
560.1678	560.3278
560.16837	560.32837
560.16836	560.32836
560.16833	560.32833
560.16832	560.32832
560.16834	560.32834
560.16838	560.32838
560.1672	560.3272
560.1674	560.3274
560.1686	560.3286
560.16865	560.32865
560.16866	560.32866
560.16867	560.32867
560.16863	560.32863
560.16864	560.32864
560.16861	560.32861
560.16862	560.32862
560.1679	560.3279
560.1675	560.3275
560.1687	560.3287
560.16876	560.32876
560.16877	560.32877
560.16875	560.32875
560.16874	560.32874
560.16872	560.32872

WITHOUT FUSE HOLDER

IP67

16A compact M25 1/12	32A compact M25 1/12	63A large M40 1/4
561.1670	561.3270	561.6370
561.1683	561.3283	561.6383
561.1678	561.3278	561.6378
561.16837	561.32837	561.63837
561.16836	561.32836	561.63836
561.16833	561.32833	561.63833
561.16832	561.32832	-
561.16834	561.32834	561.63834
561.16838	561.32838	561.63838
561.1672	561.3272	561.6372
561.1674	561.3274	561.6374
561.1686	561.3286	561.6386
561.16865	561.32865	561.63865
561.16866	561.32866	561.63866
561.16867	561.32867	561.63867
561.16863	561.32863	561.63863
561.16864	561.32864	-
561.16861	561.32861	-
561.16862	561.32862	-
561.1679	561.3279	561.6379
561.1675	561.3275	561.6375
561.1687	561.3287	561.6387
561.16876	561.32876	561.63876
561.16877	561.32877	561.63877
561.16875	561.32875	561.63875
561.16874	561.32874	-
561.16872	561.32872	-

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

WITH FUSE HOLDER

## SWITCHED SOCKET OUTLETS WITH INTERLOCK

Rated operating voltage >50 V

Reference standards: IEC 60309-1 and IEC 60309-2

- Dimensions: pages 314-315
- Approvals: from page 587
- Systems: ADVANCE 2 (from page 298)
- Switches: page 325
- Fuses: gG 10,3x38 mm (16-32A)  
Neozed type D02 (63A)

WITH FUSE CARRIER

IP44



Format:  
Cable Gland:  
Pack qty.:

Poles	Hz.	Volt	Colour	h.
2P+E	50/60	100-130	Yellow	4
	50/60	200-250	Blue	6
	50/60	380-415	Red	9
	60	277	Grey	5
	50/60	480-500	Grey	7
	50/60	is. transf.	Grey	12
	>300-500	>50	Green	2
	c.c.	>50-250	Grey	3
c.c.	>250	Grey	8	
3P+E	50/60	100-130	Yellow	4
	50/60	200-250	Blue	9
	50/60	380-415	Red	6
	60	440-460	Red	11
	50/60	480-500	Grey	7
	50/60	600-690	Black	5
	50/60	is. transf.	Grey	12
	50/60	380/440	Red	3
	100-300	>50	Green	10
	>300-500	>50	Green	2
	3P+N+E	50/60	100-130	Yellow
50/60		208-250	Blue	9
50/60		346-415	Red	6
50/60		480-500	Grey	7
50/60		600-690	Black	5
60		440-460	Red	11
50/60		380/440	Red	3
>300-500		>50	Green	2

16A compact M25 1/12	32A compact M25 1/12
562.1670	562.3270
562.1683	562.3283
562.1678	562.3278
562.16837	562.32837
562.16836	562.32836
562.16833	562.32833
562.16832	562.32832
562.16834	562.32834
562.16838	562.32838
562.1672	562.3272
562.1674	562.3274
562.1686	562.3286
562.16865	562.32865
562.16866	562.32866
562.16867	562.32867
562.16863	562.32863
562.16864	562.32864
562.16861	562.32861
562.16862	562.32862
562.1679	562.3279
562.1675	562.3275
562.1687	562.3287
562.16876	562.32876
562.16877	562.32877
562.16875	562.32875
562.16874	562.32874
562.16872	562.32872

WITH FUSE HOLDER

IP67



16A compact M25 1/12	32A compact M25 1/12	63A large M40 1/4
563.1670	563.3270	563.6370
563.1683	563.3283	563.6383
563.1678	563.3278	563.6378*
563.16837	563.32837	563.63837
563.16836	563.32836	-
563.16833	563.32833	563.63833
563.16832	563.32832	-
563.16834	563.32834	563.63834
563.16838	563.32838	563.63838
563.1672	563.3272	563.6372
563.1674	563.3274	563.6374
563.1686	563.3286	563.6386*
563.16865	563.32865	-
563.16866	563.32866	-
563.16867	563.32867	-
563.16863	563.32863	563.63863
563.16864	563.32864	-
563.16861	563.32861	-
563.16862	563.32862	-
563.1679	563.3279	563.6379
563.1675	563.3275	563.6375
563.1687	563.3287	563.6387*
563.16876	563.32876	-
563.16877	563.32877	-
563.16875	563.32875	-
563.16874	563.32874	-
563.16872	563.32872	-

\*only 400V

HEAVY DUTY Versions (▲)



16A compact M25 1/12	32A compact M25 1/12	63A large M40 1/4
564.1670	564.3270	564.6370
564.1683	564.3283	564.6383
564.1678	564.3278	564.6378*
564.16837	564.32837	564.63837
564.16836	564.32836	-
564.16833	564.32833	564.63833
564.16832	564.32832	564.63832
564.16834	564.32834	564.63834
564.16838	564.32838	564.63838
564.1672	564.3272	564.6372
564.1674	564.3274	564.6374
564.1686	564.3286	564.6386*
564.16865	564.32865	-
564.16866	564.32866	-
564.16867	564.32867	-
564.16863	564.32863	564.63863
564.16864	564.32864	-
564.16861	564.32861	-
564.16862	564.32862	-
564.1679	564.3279	564.6379
564.1675	564.3275	564.6375
564.1687	564.3287	564.6387*
564.16876	564.32876	-
564.16877	564.32877	-
564.16875	564.32875	-
564.16874	564.32874	-
564.16872	564.32872	-

(▲) Features referring to Heavy Duty products are shown on pages 296-297

- Plugs and sockets
- Adaptors
- Domestic cablereels
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

WITH DIN RAIL (6 Modules)

## SWITCHED SOCKET OUTLETS WITH INTERLOCK

Rated operating voltage >50 V

Reference standards: IEC 60309-1 and IEC 60309-2

- Dimensions: pages 314-315
- Approvals: from page 587
- Systems: ADVANCE 2 (from page 298)
- Switches: page 325

IP44

Poles	Hz.	Volt	Colour	h.	Format: Cable Gland: Pack qty.:
2P+E	50/60	100-130	Yellow	4	1/4
	50/60	200-250	Blue	6	
	50/60	380-415	Red	9	
	60	277	Grey	5	
	50/60	480-500	Grey	7	
	50/60	is. transf.	Grey	12	
	>300-500	>50	Green	2	
	c.c.	>50-250	Grey	3	
	c.c.	>250	Grey	8	
3P+E	50/60	100-130	Yellow	4	1/4
	50/60	200-250	Blue	9	
	50/60	380-415	Red	6	
	60	440-460	Red	11	
	50/60	480-500	Grey	7	
	50/60	600-690	Black	5	
	50/60	is. transf.	Grey	12	
	50 60	380 440	Red	3	
	100-300	>50	Green	10	
	>300-500	>50	Green	2	
	3P+N+E	50/60	100-130	Yellow	
50/60		208-250	Blue	9	
50/60		346-415	Red	6	
50/60		480-500	Grey	7	
50/60		600-690	Black	5	
60		440-460	Red	11	
50 60		380 440	Red	3	
>300-500		>50	Green	2	

16A large M25 1/4	32A large M25 1/4
567.1670	567.3270
567.1683	567.3283
567.1678	567.3278
567.16837	567.32837
567.16836	567.32836
567.16833	567.32833
567.16832	567.32832
567.16834	567.32834
567.16838	567.32838
567.1672	567.3272
567.1674	567.3274
567.1686	567.3286
567.16865	567.32865
567.16866	567.32866
567.16867	567.32867
567.16863	567.32863
567.16864	567.32864
567.16861	567.32861
567.16862	567.32862
567.1679	567.3279
567.1675	567.3275
567.1687	567.3287
567.16876	567.32876
567.16877	567.32877
567.16875	567.32875
567.16874	567.32874
567.16872	567.32872

IP67

16A large M25 1/4	32A large M25 1/4	63A large M40 1/4
568.1670	568.3270	568.6370
568.1683	568.3283	568.6383
568.1678	568.3278	568.6378*
568.16837	568.32837	568.63837
568.16836	568.32836	-
568.16833	568.32833	568.63833
568.16832	568.32832	-
568.16834	568.32834	568.63834
568.16838	568.32838	568.63838
568.1672	568.3272	568.6372
568.1674	568.3274	568.6374
568.1686	568.3286	568.6386*
568.16865	568.32865	-
568.16866	568.32866	-
568.16867	568.32867	-
568.16863	568.32863	568.63863
568.16864	568.32864	-
568.16861	568.32861	-
568.16862	568.32862	-
568.1679	568.3279	568.6379
568.1675	568.3275	568.6375
568.1687	568.3287	568.6387*
568.16876	568.32876	-
568.16877	568.32877	-
568.16875	568.32875	-
568.16874	568.32874	-
568.16872	568.32872	-

Versions  
HEAVY  
DUTY  
(▲)

16A large M25 1/4	32A large M25 1/4	63A large M40 1/4
569.1670	569.3270	569.6370
569.1683	569.3283	569.6383
569.1678	569.3278	569.6378*
569.16837	569.32837	569.63837
569.16836	569.32836	-
569.16833	569.32833	569.63833
569.16832	569.32832	569.63832
569.16834	569.32834	569.63834
569.16838	569.32838	569.63838
569.1672	569.3272	569.6372
569.1674	569.3274	569.6374
569.1686	569.3286	569.6386*
569.16865	569.32865	-
569.16866	569.32866	-
569.16867	569.32867	-
569.16863	569.32863	569.63863
569.16864	569.32864	-
569.16861	569.32861	-
569.16862	569.32862	-
569.1679	569.3279	569.6379
569.1675	569.3275	569.6375
569.1687	569.3287	569.6387*
569.16876	569.32876	-
569.16877	569.32877	-
569.16875	569.32875	-
569.16874	569.32874	-
569.16872	569.32872	-

\*only 400V

(▲) Features referring to Heavy Duty products are shown on pages 296-297

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lamp holders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



### ELECTRIC INTERLOCK VERSION <50V



The ADVANCE < 50 V surface mounting socket outlet is ideal for supplying low voltage appliances in safety (SELV).

#### VERSIONS

- With SELV transformer
- With DIN rail, without SELV transformer

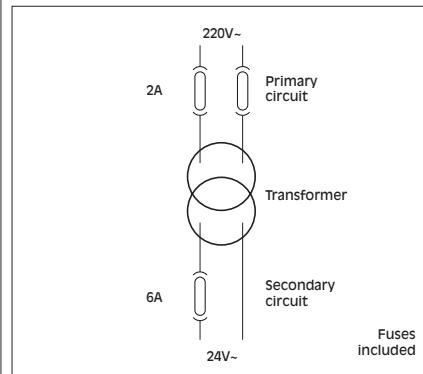
Both the versions are available in HD material and can be fitted into the ADVANCE 2 System.

### THE EXTRA-LOW VOLTAGE SYSTEM OF SAFETY (SELV)

The SELV system is effectively used on low voltage installations to provide protection against shock hazards for personnel in the event of direct or indirect contacts.

CEI 64-8 (IEC 60364) Standards require the following essential conditions to be met by an installation to implement the SELV system:

- rated voltage: not above 50V~ or 120V d.c.
- power supply: from a safety source with galvanic separation, eg. safety transformer, emergency generator, battery, equivalent electronic devices, etc.
- live parts are not earthed nor connected to the live parts of other electrical systems nor to protective conductors of other circuits
- electric circuits: electric separation from other circuits with isolation characteristics equal to those provided between the primary and secondary winding of the safety transformers, use a non-metallic sheath.
- metallic bodies should not be earthed nor connected to protective conductors or the metallic bodies of other electrical systems nor to external metallic bodies
- plugs should not be inserted into the sockets of other electrical systems
- sockets should not allow for the insertion of plugs of other electrical systems and should not have earth contact.



Protections for the version with transformer

### ELECTRIC INTERLOCK VERSION EXTRA LOW VOLTAGE SAFETY SYSTEM (SELV)

Surface mounting  
Rated operating voltage <50V

Reference standards: IEC 60309-1 and IEC 60309-2

- Approvals: from page 587
- Systems: ADVANCE 2 (from page 298)

#### VERSION WITH SAFETY TRANSFORMER

- SELV Transformer 220/24V~ - 150VA (continuous power)
- Extra Low power safety
- With a micro-switch that provides electric interlock and operates on the transformer primary

#### Compact (module 106)

- Cable gland M25

SOCKET	DESCRIPTION	COLOUR	h	RATED VOLTAGE	PACK QTY.	IP44 CAT.NO.	IP67 CAT.NO.
2P - 16A	Normal		-	24V~	1/10	565.2416	565.2416/S
	Heavy Duty (*)		-	24V~	1/10	566.2416	566.2416/S

The electric interlock is activated by the insertion of the plug.

#### LARGE (module 136)

- Cable gland M25
- Protection: 2A primary fuse, 6A secondary

SOCKET	DESCRIPTION	COLOUR	h	RATED VOLTAGE	PACK QTY.	IP44 CAT.NO.	IP67 CAT.NO.
2P - 16A	Normal		-	24V~	1/4	565.2516	565.2516/S
	Heavy Duty (*)		-	24V~	1/4	566.2516	566.2516/S

The electric interlock is activated by the insertion of the plug.

#### VERSION WITH RAIL 6 DIN MODULES:

- Without transformer
- With a micro-switch that can be connected to relays for the electric interlock
- Protections: to be installed on DIN rail
- Version particularly suitable for extra low voltage systems with main transformer

#### Compact (module 106)

- Cable gland M25

SOCKET	DESCRIPTION	COLOUR	h	RATED VOLTAGE	PACK QTY.	IP44 CAT.NO.	IP67 CAT.NO.
2P - 16A	Normale		-	20-25V~	1/10	565.2420	565.2420/S
			12	40-50V~	1/10	565.2421	565.2421/S
2P - 16A	Heavy Duty (*)		-	20-25V~	1/10	566.2420	566.2420/S
			12	40-50V~	1/10	566.2421	566.2421/S
2P - 32A	Normale		-	20-25V~	1/10	565.2432	565.2432/S
			12	40-50V~	1/10	565.2433	565.2433/S
2P - 32A	Heavy Duty (*)		-	20-25V~	1/10	566.2432	566.2432/S
			12	40-50V~	1/10	566.2433	566.2433/S

The electric interlock is activated by the insertion of the plug.

(\*) Features referring to Heavy Duty products are shown on pages 296-297



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



## ELECTRIC INTERLOCK VERSION 125 A

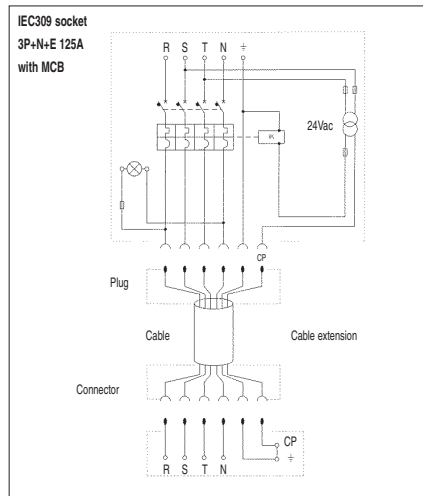


Suitable for supplying heavy electrical loads, such as required for building sites, assemblies and complex machines or systems that absorb high currents. SCAME's ADVANCE 2 Series 125A socket outlets come with protective devices already installed. An undervoltage release opens the circuit if the supply voltage goes under the pre-set limit.

### VERSIONS

- With MCB
- With MCB and RCD

### ELECTRICAL INTERLOCK DIAGRAM



### PILOT CONTACT

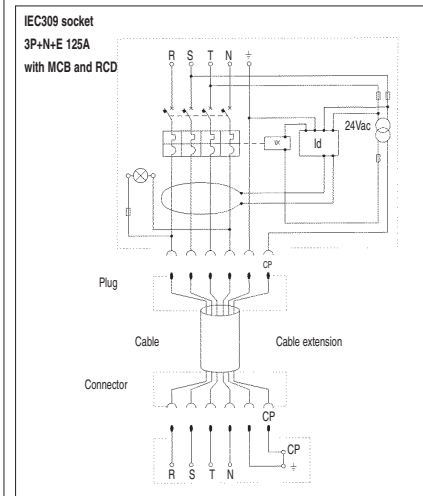
Under the IEC 60309-2 Standard plugs and sockets with rated current above 63A should be fitted with a pilot contact which, through an electric interlock, prevents the plug from being inserted and withdrawn while under load.

This device prevents the forming of dangerous arc discharges between the contacts.

The interlock device consists of an undervoltage release (mounted in the circuit breaker) controlled by the pilot contact.

The pilot contact closing lags after that of the phase contacts when the plug is inserted into the socket, whereas the pilot contact opening leads before that of the phase contacts when the plug is withdrawn from the socket.

Thanks to this sequence, through the undervoltage release, the pilot contact causes tripping of the circuit breaker, which switches off the socket's main power circuit before the plug is withdrawn and closes it after the plug has been fully inserted.



## ELECTRIC INTERLOCK VERSION 125 A - IP55

### Surface mounting

### Rated operating voltage >50V - IP55

Reference standard: IEC 60309-1 and IEC 60309-2

- Electric interlock
- RAL 7032 grey highly impact-resistant casing
- Bayonet coupling socket outlet
- Colour according to the different operating voltages
- Degree of protection: IP55
- Electric interlock obtained with pilot contact and undervoltage release which allows the plug to be inserted or withdrawn only when the circuit is open
- Thermal magnetic moulded-case circuit breaker (MCB) with or without residual current device (RCD) reactivated from the outside by a rotating knob that can be padlocked, breaking power: 15KA
- Safety transformer (24V~) for interlock control, protected by fuses
- Live status light indicator
- Supplied complete with cable gland PG48

### WITH MCB

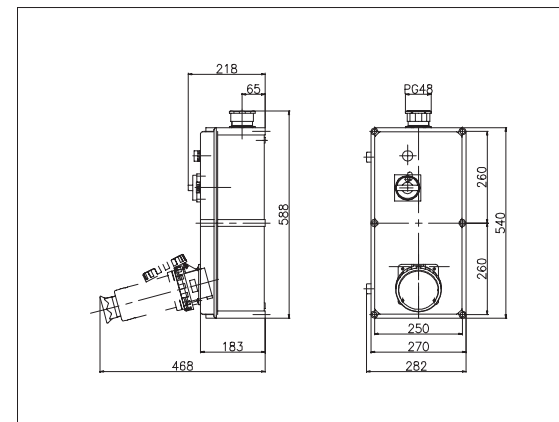
DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Socket 3P+E 125A - 380/415V		1	557.12576
Socket 3P+N+E 125A - 380/415V		1	557.12577

### WITH MCB AND RCD

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Socket 3P+E 125A - 380/415V		1	557.12586
Socket 3P+N+E 125A - 380/415V		1	557.12587

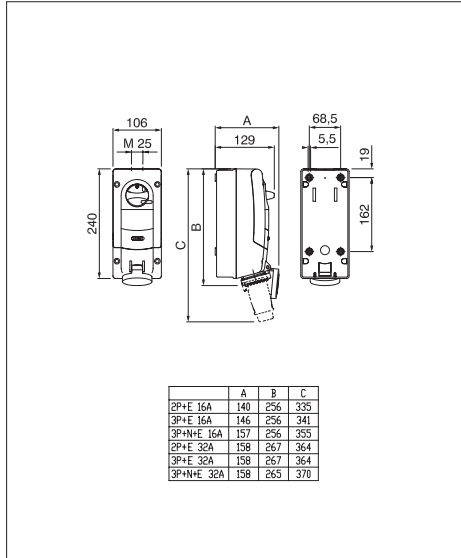


### DIMENSIONS

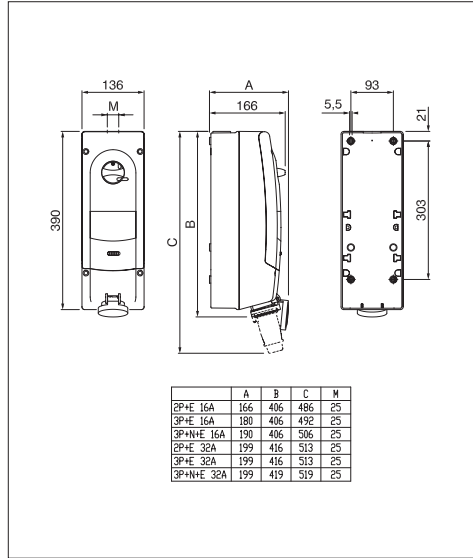


### RATED OPERATING VOLTAGE >50V

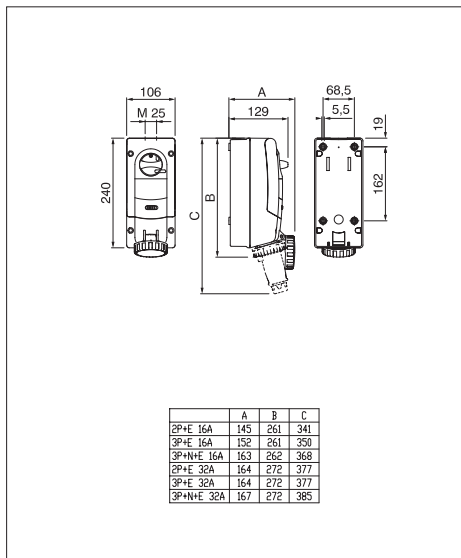
#### COMPACT VERSION - IP44



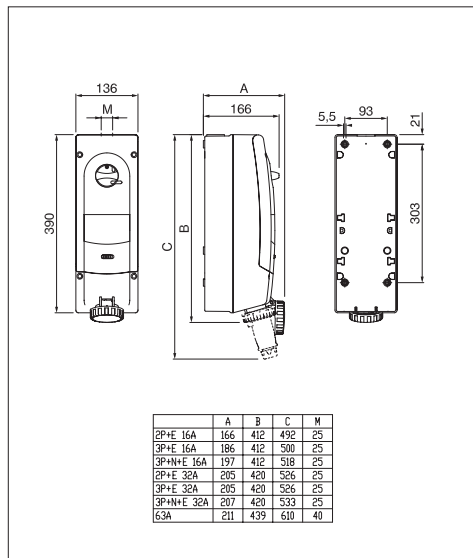
#### LARGE VERSION - IP44



#### COMPACT VERSION - IP67

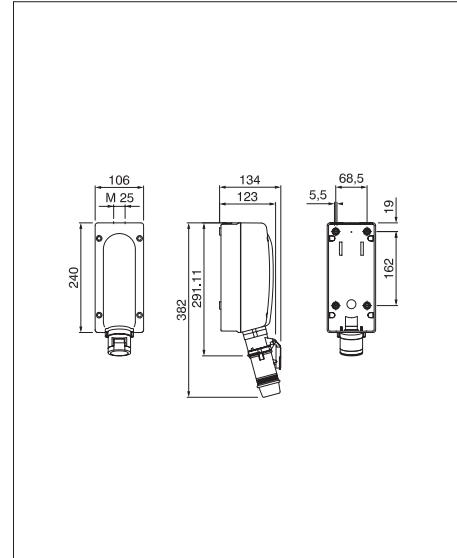


#### LARGE VERSION - IP67

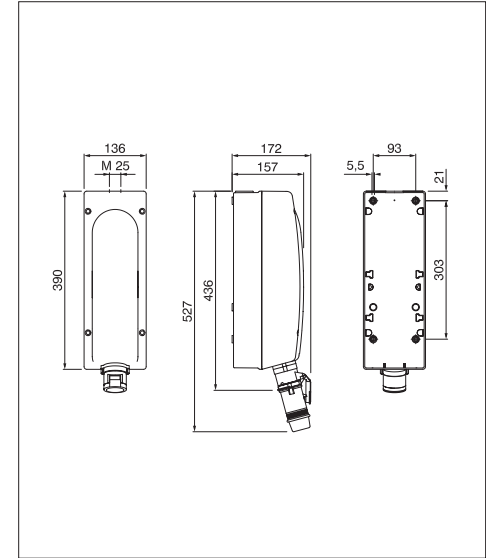


### RATED OPERATING VOLTAGE >50V

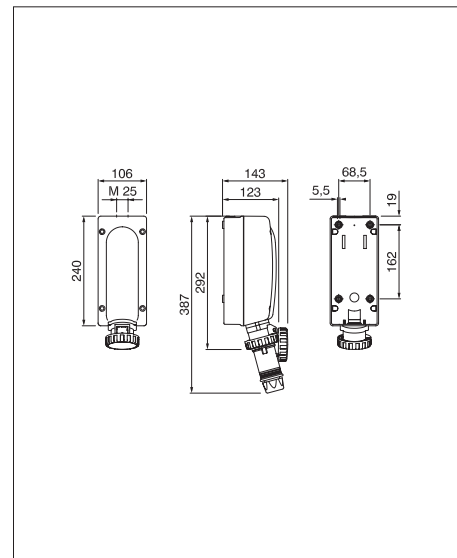
#### COMPACT VERSION - IP44



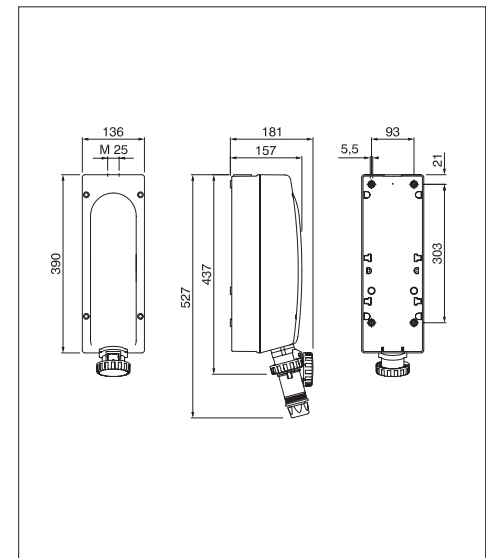
#### LARGE VERSION - IP44



#### COMPACT VERSION - IP67



#### LARGE VERSION - IP67





### INTERLOCKED-SWITCH SOCKET OUTLETS

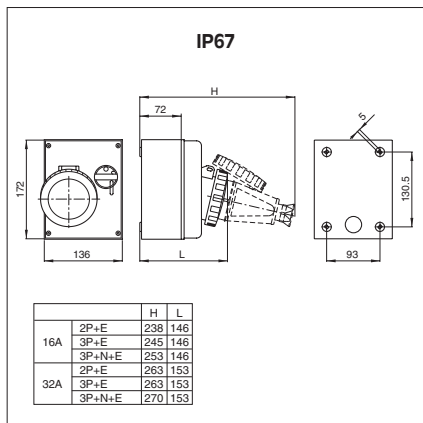


The QUADRA Series is designed for industrial applications or on building sites, mainly as a component of the MASTERBOX Series construction-site assemblies.

#### STRUCTURAL CHARACTERISTICS

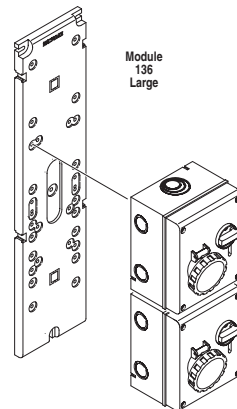
- Surface mounting
- Without fuse carrier
- Rated voltage: 690V~
- Rated currents: 16A - 32A
- Protection degree: IP67

#### DIMENSIONS



#### TECHNICAL CHARACTERISTICS

- Same overall dimensions for 16A and 32A
- Can be installed on ADVANCE System modular bases (module 136) and MASTERBOX Series
- Mechanical interlock
- Lugs are provided at the back of the base to enable panel mounting
- Cable inlet knock-out openings in the base, of the following sizes:
  - top: 1 knock-out for PG 21-29-36
  - bottom: 3 knock-outs for PG21
  - sides: 2 knock-out for PG21
- The switch can be padlocked in open or closed position



The QUADRA Series is compatible with:  
- The ADVANCE 2 System large (page 298-299)

(dimensions in mm)

### INTERLOCKED-SWITCH SOCKET OUTLETS

Surface mounting  
Rated operating voltage >50V

Reference standards: IEC 60309-1 and IEC 60309-2

- Without fuse carrier
- Can be padlocked
- Complementary to the MASTERBOX Series assemblies

- Approvals : page 587
- Systems: ADVANCE 2 (page 298-299)

Poles	Hz	V	Cable Gland:	
			Colour	Pack qty.:
2P+E	50/60	100-130	Yellow	4
	50/60	200-250	Blue	6
	50/60	380-415	Red	9
	60	277	Grey	5
	50/60	480-500	Grey	7
	50/60	is. transf.	Grey	12
	>300-500	>50	Green	2
	c.c.	>50-250	Grey	3
	c.c.	>250	Grey	8
3P+E	50/60	100-130	Yellow	4
	50/60	200-250	Blue	9
	50/60	380-415	Red	6
	60	440-460	Red	11
	50/60	480-500	Grey	7
	50/60	600-690	Black	5
	50/60	is. transf.	Grey	12
	50	380	Red	3
	60	440	Red	3
	100-300	>50	Green	10
	>300-500	>50	Green	2
3P+N+E	50/60	100-130	Yellow	4
	50/60	208-250	Blue	9
	50/60	346-415	Red	6
	50/60	480-500	Grey	7
	50/60	600-690	Black	5
	60	440-460	Red	11
	50	380	Red	3
	60	440	Red	3
	>300-500	>50	Green	2

IP67	
16 A PG21 6	32 A PG21 6
546.1683	546.3283
546.1686	546.3286
546.1687	546.3287



## SWITCHGEAR



**I count on  
SCAME !**



...because it makes  
my job easier



**ROTARY Switches  
ISOLATORS Series  
TOP22 Series**





## ROTARY SWITCHES



### GENERAL DESCRIPTION

SCAME's range of switchgear includes two series which comply in design and construction with national and international standards that govern:

- rotary control and disconnecting switches
- auxiliary control and emergency stop push buttons

The range of rotary control and disconnecting switches is available in two-pole, three-pole and four-pole versions with rated currents of 16A, 32A, 63A and 80A; All the switches are designed for a 690V~ rated isolating voltage and comply with IEC 60947-3.

## REFERENCE STANDARDS

**IEC 60947-3**  
Low-voltage switchgear and controlgear  
**Part. 3:** Switches disconnectors, switch-disconnectors and fuse-combination unit

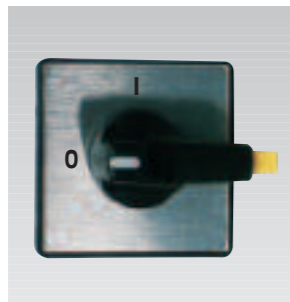
### USE

These switches are used in the manufacturing and services industry as:

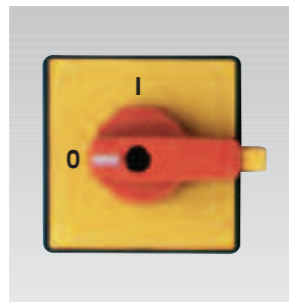
- Main switch
- Disconnecting switch
- Motor control switch
- Emergency switches
- Main emergency switch

SCAME's rotary control and disconnecting switches are highly flexible in use. It is possible to supply the switching units separately from the front operators and the accessories, which means a variety of versions (see combinations in the following pages) can be made up in order to meet most installation requirement.

## FRONT OPERATORS



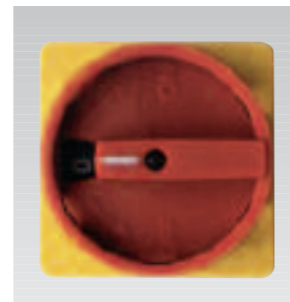
Door interlock 48x48  
Grey front plate  
Black knob  
One padlock



Door interlock 48x48  
Yellow front plate  
Red knob  
One padlock



Door interlock 67x67  
Grey front plate  
Black knob  
Three padlocks



Door interlock 67x67  
Yellow front plate  
Red Knob  
Three padlocks

## TECHNICAL INFORMATION

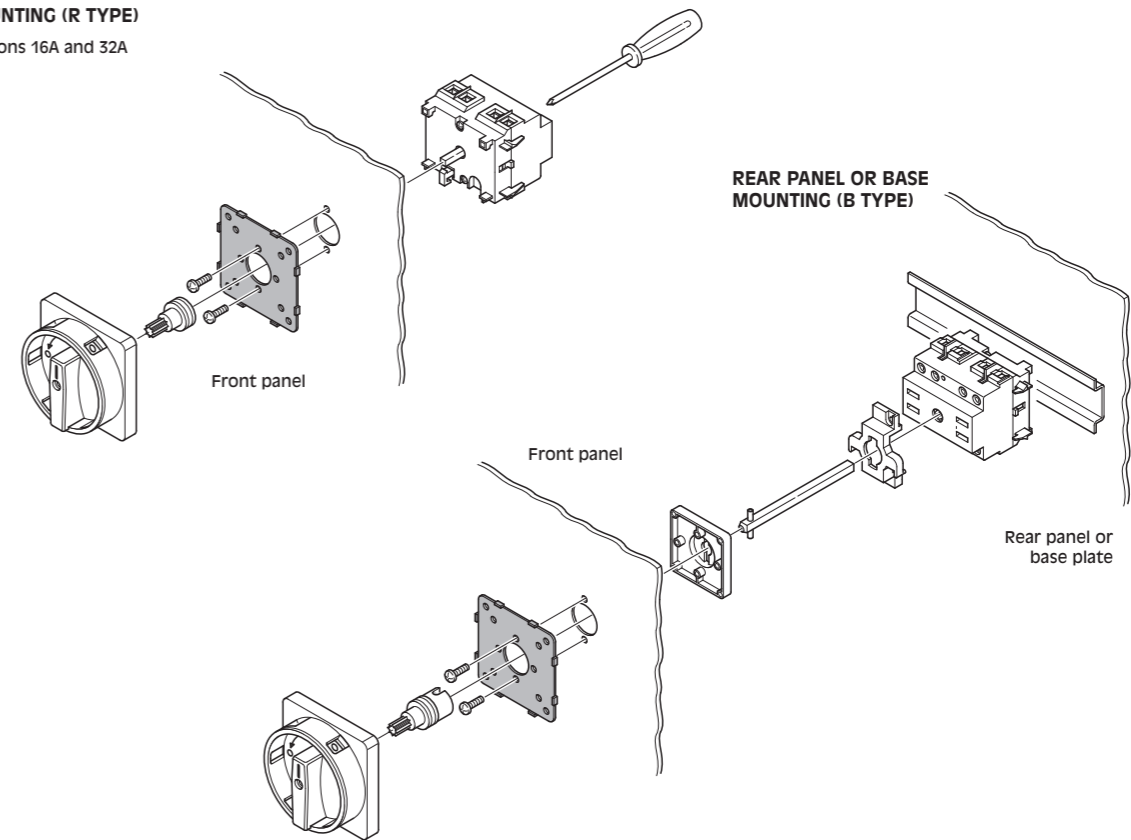
- All moulded components (switching units and insulated parts) are of high quality self-extinguishing materials. The self extinguishing materials comply with UL94 (VO degree) standards and have undergone the glow wire test at 960°C in conformity with IEC 60695-2/1 standard. The materials are also highly resistant to tracking.
- Double break contacts with silver alloy contact buttons ensure positive opening
- Shrouded finger proof terminals (IP20). In compliance with VDE 0106 part 100 - VG84 standard, prevent accidental contact with the live parts. The terminal arrangement is on a straight line.
- The terminals fitted in the 590 Series are tunnel type with captive screws (unscrewed ready for wiring).
- Access to the terminals is from the rear on the R type switching units and from the front on the B type switching units.
- B type switch units of the 90 Series are supplied complete with provision for fitting on EN 50022 rail.
- 90° operation angle.
- The front operators are available in these colours black-grey, red-yellow.

## TESTING

- IMQ

### FRONT PANEL MOUNTING (R TYPE)

Versions 16A and 32A



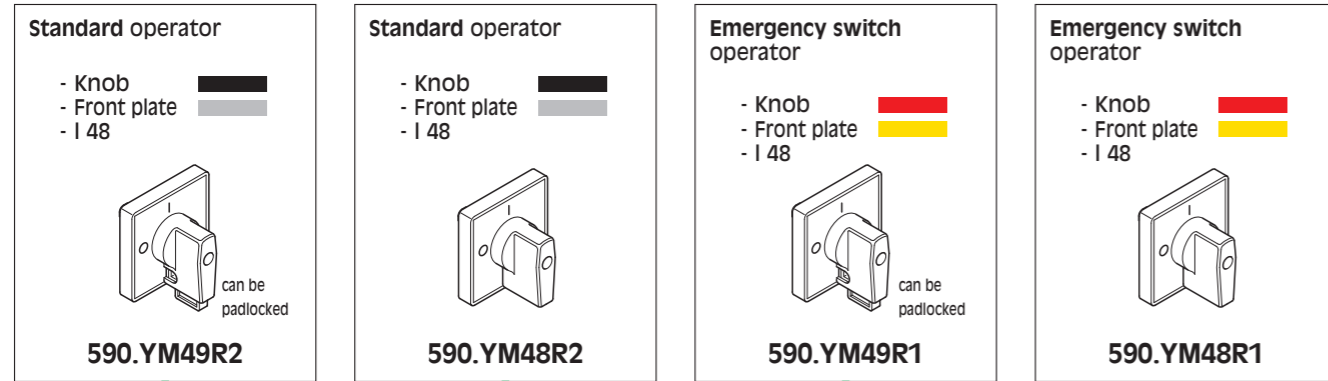
### 590 SERIES

Rotary control - disconnecting switches: mounting

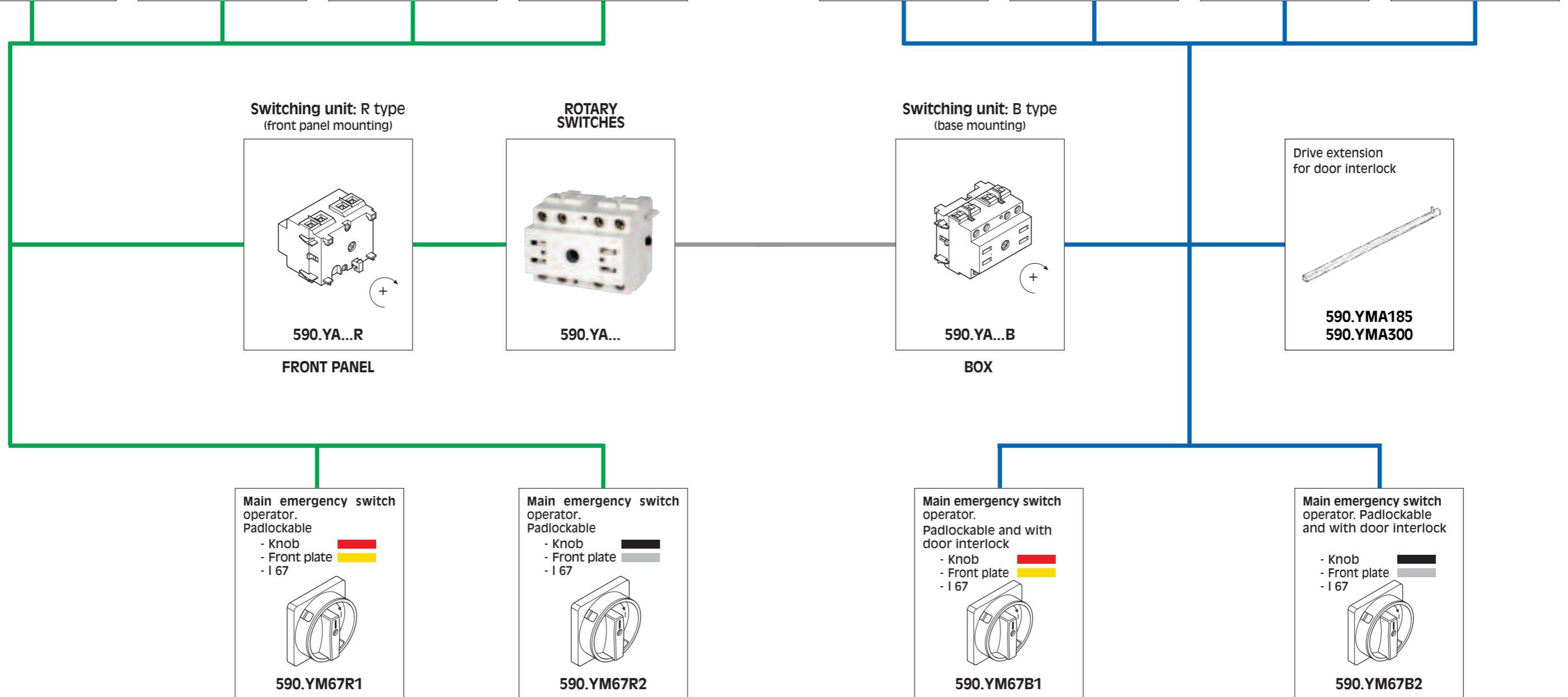
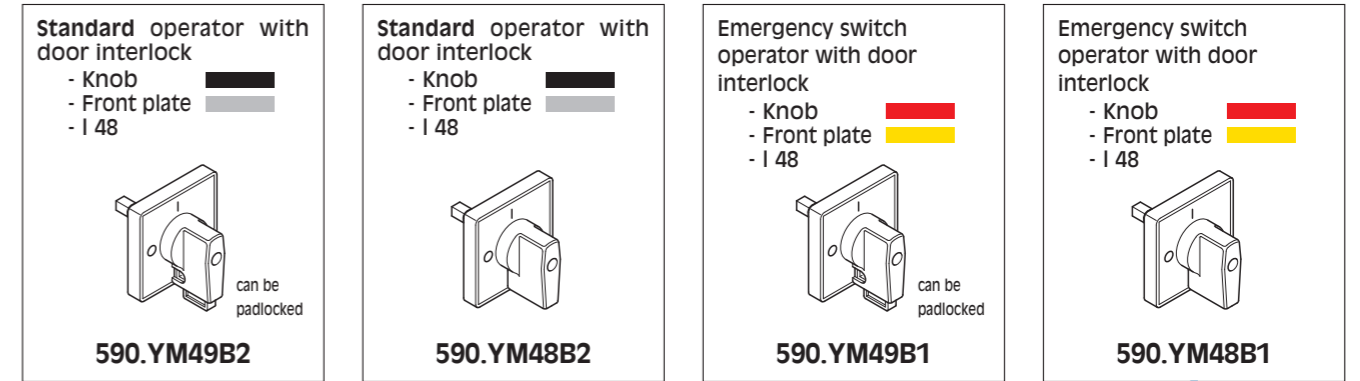


## SELECTION TABLES (16A AND 32A VERSIONS)

### POSSIBLE COMBINATIONS OF "R" SWITCHING UNITS AND FRONT OPERATORS



### POSSIBLE COMBINATIONS OF "B" SWITCHING UNITS AND FRONT OPERATORS



Plugs and sockets



Adaptors



Domestic cable reels



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits

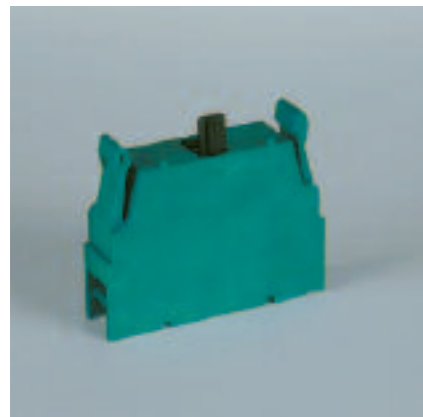


Trunking

## TECHNICAL DATA ROTARY SWITCHES

Reference standard IEC 60947-3

		with fuse		without fuse								
		16A	32A	20A	32A	40A	63A	80A	100A	125A	160A	
		YF16	YF32									
Rated insulation voltage $U_i$	$V_{AC}$	690	690	690	690	690	690	690	800	750	750	
	$V_{DC}$	400	400	400	400	400	-	-	-	750	750	
Rated impulse withstand voltage $U_{imp}$	kV	4	4	4	4	4	8	8	8	8	12	
Thermal current $I_{th}$	A	25	32	30	40	40	63	86	100	125	200	
Thermal current $I_{the}$	A	25	32	30	40	40	63	86	-	125	160	
Nominal current rating	AC21A Resistive loads, including moderate overloads	400V	-	-	-	-	40	-	-	-	-	-
		500V	-	-	-	-	-	-	-	-	-	-
		690V	25	32	30	32	-	63	80	100	125	160
	AC22A Mixed resistive and inductive loads, including moderate overloads	400V	-	-	-	-	40	-	-	-	-	-
		500V	-	-	-	-	-	-	-	-	-	-
		690V	30	32	20	32	-	63	80	100	125	160
	AC23A Switching off motor loads or other highly inductive loads (3 phase / 3 pole)	400V	-	-	20	32	35	63	67	80	90	135
		500V	-	-	-	-	-	40	67	63	70	125
		690V	16	25	16	25	25	30	38	50	50	80
	AC3 Squirrel-cage motor: starting, switching off motor during running (3 phase / 3 pole)	400V	-	28,5	-	28,5	28,5	40	55	-	-	-
		690V	12	20	12	20	20	25	32	-	-	-
	DC21A Resistive loads, including moderate overloads	300V	25	32	20	32	32	-	-	-	125 (220V)	160 (220V)
		250V	20	32	25	32	32	-	-	-	80 (220V)	160 (220V)
	Short-circuit protection:	Rated short-time withstand current $I_{cw}$ (1s)	A	400	400	400	400	1500	1500	1500	2500	4000
		Conditional short-circuit current	kAeff	10	10	10	10	10	-	40	12	25
		Associate fuse size for conditional short-circuit current - Type gG	A	16	32	16	32	40	63	-	80	100
	Permissible wire gauge:	Flexible wire	mm <sup>2</sup>	1,5-10	1,5-10	1,5 - 10	1,5 - 10	10-35	10-35	25-50	10-70	10-70
			AWG	16	16	16 - 8	16 - 8	16 - 8	8-2	8-2	-	-
Flexible wire		mm <sup>2</sup>	1,5-16	1,5-16	1,5 - 16	1,5 - 16	10-35	10-35	25-50	-	-	
		AWG	16-6	16-6	16 - 6	16 - 6	8-2	8-2	-	-	-	



### Auxiliary contacts (only for 16A and 32A)

The SCAME Switching units accept up to two auxiliary contacts (1 left and 1 right).

TOP22 Series (page 334).

## SWITCHING UNITS

Reference standards: IEC 60947-3 and CEI 17-11 (Italian standard)

- For rotary switches
- Degree of protection: IP20
- 90° operation angle

### SWITCHING UNITS

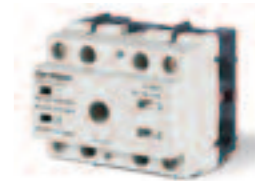
DESCRIPTION	THERMAL CURRENT	POWER DISSIPATION PER POLE/CONTACT	PACK QTY.	Type R (*)	Type B (**)	
				Front panel mtg CATALOGUE NUMBER	Box CATALOGUE NUMBER	
16A	2P	30A	0,9W	1/6	Ⓢ 590.YA162R	Ⓢ 590.YA162B
	3P	30A	0,9W	1/6	Ⓢ 590.YA163R	Ⓢ 590.YA163B
	4P	30A	0,9W	1/6	Ⓢ 590.YA164R	Ⓢ 590.YA164B
32A	2P	40A	1,6W	1/6	Ⓢ 590.YA322R	Ⓢ 590.YA322B
	3P	40A	1,6W	1/6	Ⓢ 590.YA323R	Ⓢ 590.YA323B
40A	4P	40A	1,6W	1/6	Ⓢ 590.YA324R	Ⓢ 590.YA324B
	2P	40A	-	1/6	590.YA402R	590.YA402B
63A	3P	40A	-	1/6	590.YA403R	590.YA403B
	4P	40A	-	1/6	590.YA404R	590.YA404B
80A	2P	63A	-	1/6	Ⓢ 590.YA632R	Ⓢ 590.YA632B
	3P	63A	-	1/6	Ⓢ 590.YA633R	Ⓢ 590.YA633B
80A	4P	63A	-	1/6	Ⓢ 590.YA634R	Ⓢ 590.YA634B
	2P	86A	-	1/6	Ⓢ 590.YA802R	Ⓢ 590.YA802B
80A	3P	86A	-	1/6	Ⓢ 590.YA803R	Ⓢ 590.YA803B
	4P	86A	-	1/6	Ⓢ 590.YA804R	Ⓢ 590.YA804B

(\*) Suitable as spare part for the SCAME OMNIA Series interlocked-switch socket outlets

(\*\*) Suitable as spare part for the SCAME ISOLATORS Series and ADVANCE2 Series

### SWITCHING UNITS SUITABLE AS SPARE PART FOR THE SCAME INTERLOCKED-SWITCH SOCKET OUTLETS ADVANCE 2 SERIES WITH FUSE CARRIER

DESCRIPTION	THERMAL CURRENT	POWER DISSIPATION PER POLE/CONTACT	PACK QTY.	Type B	
				Box CATALOGUE NUMBER	
2P	25A	0,9W	1/6	Ⓢ 590.YF162B	
16A	3P	25A	0,9W	1/6	Ⓢ 590.YF163B
	4P	25A	0,9W	1/6	Ⓢ 590.YF164B
32A	2P	32A	1,6W	1/6	Ⓢ 590.YF322B
	3P	32A	1,6W	1/6	Ⓢ 590.YF323B
4P	32A	1,6W	1/6	Ⓢ 590.YF324B	



## ACCESSORIES

Reference standards: IEC 60947-3 and CEI 17-11

### SINGLE JUNCTION BOX

- Box provided for fitting of rotary switches (switching units and relevant front operators)
- Made of thermoplastic material
- Colour: RAL 7035 grey
- Front operators: R1/R2

DESCRIPTION	ROTARY SWITCHES	TYPE	DIMENSIONS (mm)	PACK QTY.	CATALOGUE NUMBER
suitable for R units (*)	16A and 32A	ADVANCE 2 Series - IP66	136 x 150 x 105	6	576.3390
suitable for R units	16A and 32A	OMNIA Series - IP67	136 x 125 x 85	6	572.3390



### FRONT OPERATORS 67X67 mm - IP65

- For standard and emergency switches
- Can be padlocked (max 3 padlocks) in the "O" position (open)
- Supplied with drive extension

DESCRIPTION	ROTARY SWITCHES	KNOB	FRONT PLATE	PACK QTY.	CATALOGUE NUMBER
Suitable for R units	16A, 32A and 40A			1/10	590.YM67R1
				1/10	590.YM67R2
Suitable for B units with door interlock (*)	16A, 32A and 40A			1/10	590.YM67B1
				1/10	590.YM67B2
Suitable for R units	63A and 80A			1/10	590.YM67R6
				1/10	590.YM67R7
Suitable for B units with door interlock (*)	63A and 80A			1/10	590.YM67B6
				1/10	590.YM67B7

(\*) with 85mm long drive extension



### DRIVE EXTENSION FOR DOOR INTERLOCK

DESCRIPTION	ROTARY SWITCHES	LENGTH	DIMENSIONS	PACK QTY.	CATALOGUE NUMBER
Suitable for B units	16A, 32A and 40A	185 mm	5x5 mm	10	590.YMA185
	63A and 80A	300 mm	5x5 mm	10	590.YMA300
Suitable for B units	16A, 32A and 40A	185 mm	6x6 mm	10	590.YMB185
	63A and 80A	300 mm	6x6 mm	10	590.YMB300



R = Front panel mounting  
B = Base mounting

## ACCESSORIES

Reference standards: IEC 60947-3 and CEI 17-11

### FRONT OPERATORS 48X48 mm - IP65

- For standard and emergency switches
- Supplied with drive extension

DESCRIPTION	ROTARY SWITCHES	KNOB	FRONT PLATE*	PACK QTY.	CATALOGUE NUMBER
Suitable for R units	16A, 32A and 40A			1/10	590.YM48R1
				1/10	590.YM48R2
Suitable for B units with door interlock (*)	16A, 32A and 40A			1/10	590.YM48B1
				1/10	590.YM48B2

(\*) with 85mm long drive extension



### FRONT OPERATORS 48X48 mm - CAN BE PADLOCKED - IP65

- For standard and emergency switches
- Supplied with drive extension

DESCRIPTION	ROTARY SWITCHES	KNOB	FRONT PLATE*	PACK QTY.	CATALOGUE NUMBER
Suitable for R units	16A, 32A and 40A			1/10	590.YM49R1
				1/10	590.YM49R2
Suitable for B units with door interlock (*)	16A, 32A and 40A			1/10	590.YM49B1
				1/10	590.YM49B2

(\*) with 85mm long drive extension



Plugs and sockets



Adaptors



Domestic cable reels

48



Lamp holders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets

48



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



Trunking





## SWITCH-DISCONNECTORS

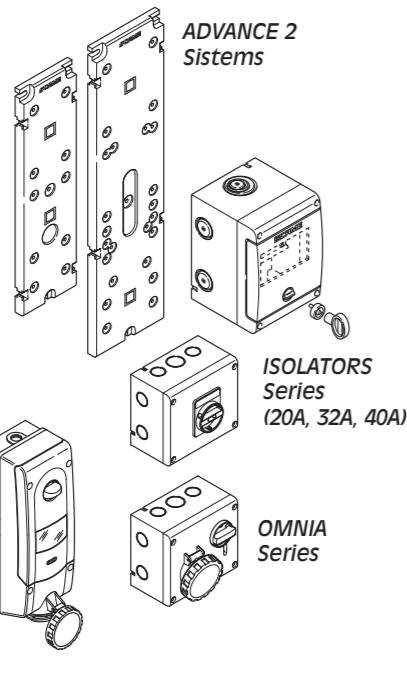


### GENERAL DESCRIPTION

Scame provide with this ISOLATORS Series a practical solution for switch-disconnector inside an enclosure with a high degree of protection. The versions 20A, 32A and 40A can be mounted in the same enclosure, which can be intergrated into the Scame ADVANCE System, and also the OMNIA System.

### VERSIONS

The ISOLATORS are available in two versions, emergency or standard. Each version is available with nominal current ratings of 20A, 32A, 40A, 63A, 80A, 100A, 125A and 160A.



(The components shown above are modular with the engineering plastic version only)

## REFERENCE STANDARD

**IEC 60947-3**  
Low-voltage switchgear and controlgear  
**Part 3:** Switches, disconnectors, switch-disconnectors and fuse-combination unit

### ELECTRICAL CHARACTERISTICS

Switch-disconnectors are suitable for:

- Emergency switching
- Control of circuits
- Isolation of circuits

### ROTARY SWITCHES

Features of control switches are mentioned on page 324

### STRUCTURAL CHARACTERISTICS

#### Engineering plastic version

- High impact, self-extinguishing thermoplastic material.
- Surface mounting from the inside with pass-through screws or from the rear.
- Draining holes on all sides.
- Protection degree: IP65.
- Cable entry: knock out

**Enclosure OMNIA Series 20A, 32A and 40A**  
upper surface: 3xM20/M25  
lower surface: 2xM20/M25  
side surface: 2xM20  
back surface: 2xM20/M25

**Enclosure 63A, 80A and 100A**  
upper surface: 2xM25/M32  
lower surface: 2xM25/M32  
side surface: -  
back surface: -

**New enclosure 20A, 32A and 40A**  
upper surface: 1xM20+1xM25  
lower surface: 1xM20+1xM25  
side surface: -  
back surface: -

**Enclosure 125A and 160A**  
upper surface: blank side  
lower surface: blank side  
side surface: blank side  
back surface: blank side

### Metal versions

- Isolators series, metal versions, is well suited to harsh environments due to the nature of the industry-heavy industry installations, machine installations, for industrial automation, for thermal, chemical and petrol chemical plants-even outside. Not suitable for particularly environments. For any inquiries concerning special applications, please contact Scame technical service.

- Wall mounting die-cast aluminium enclosures
- Painted with grey epoxy.
- Stainless steel screws for closing cover with flat screwdriver slot
- Earthing terminal on the base
- Fixing to wall by brackets incorporated in the enclosure base
- Cable entry: threaded

**Enclosure 20A, 32A, 40A**  
upper surface: 1xM20+1xM25  
lower surface: 1xM20+1xM25

**Enclosure 125A, 160A**  
upper surface: blank side  
lower surface: blank side

**Enclosure 63A, 80A and 100A**  
upper surface: 2xM32  
lower surface: 2xM32

## FLUSH MOUNTING

Reference standard: IEC 60947-3

### FOR EMERGENCY SWITCHING

- Padlockable red knob
- Yellow front plate
- Enclosure: RAL 7035 grey

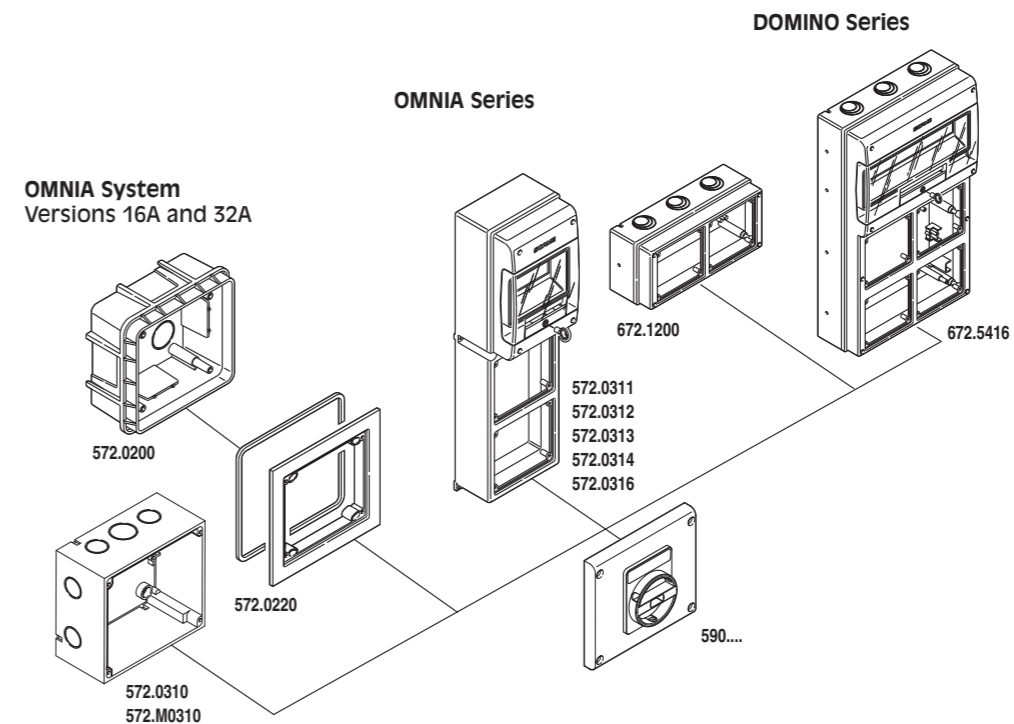
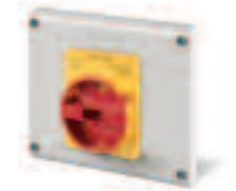


### FOR GENERAL USE

- Padlockable black knob
- Grey front plate
- Enclosure: RAL 7035 grey



	POLES	FLANGE DIMENSIONS (mm)	PROTECTION DEGREE	PACK QTY.	CATALOGUE NUMBER	
					EMERGENCY SWITCHING	GENERAL USE
20A	2	135 x 125	IP55	1/12	590.ER2002	590.GR2002
	3				590.ER2003	590.GR2003
	4				590.ER2004	590.GR2004
32A	2	135 x 125	IP55	1/12	590.ER3202	590.GR3202
	3				590.ER3203	590.GR3203
	4				590.ER3204	590.GR3204



Plugs and sockets



Adaptors



Domestic cable reels



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

## SURFACE MOUNTING

Reference standard: IEC 60947-3

### FOR EMERGENCY SWITCHING

- Padlockable red knob
- Yellow front plate
- Enclosure: RAL 7035 grey

### FOR GENERAL USE

- Padlockable black knob
- Grey front plate
- Enclosure: RAL 7035 grey

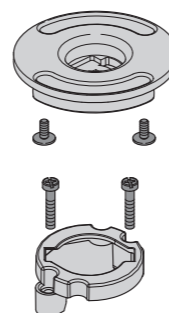
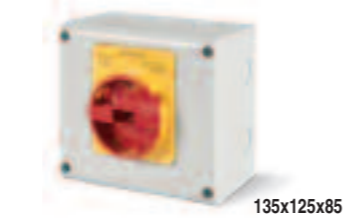
POLES	ENCLOSURE DIMENSIONS (mm)	PROTECTION DEGREE	PACK QTY.	CATALOGUE NUMBER	
				EMERGENCY SWITCHING	GENERAL USE
20A	135 x 125 x 85 (1)	IP65	1/12	590.EM2002	590.GE2002
				590.EM2003	590.GE2003
				590.EM2004	590.GE2004
20A	105 x 150 x 82	IP65	1/12	590.EM2012	590.GE2012
				590.EM2013	590.GE2013
				590.EM2014	590.GE2014
32A	135 x 125 x 85 (1)	IP65	1/12	590.EM3202	590.GE3202
				590.EM3203	590.GE3203
				590.EM3204	590.GE3204
32A	105 x 150 x 82	IP65	1/12	590.EM3212	590.GE3212
				590.EM3213	590.GE3213
				590.EM3214	590.GE3214
40A	135 x 125 x 85 (1)	IP65	1/12	590.EM4002	590.GE4002
				590.EM4003	590.GE4003
				590.EM4004	590.GE4004
40A	105 x 150 x 82	IP65	1/12	590.EM4012	590.GE4012
				590.EM4013	590.GE4013
				590.EM4014	590.GE4014
63A	190 x 140 x 100	IP65	1/5	590.EM6302	590.GE6302
				590.EM6303	590.GE6303
				590.EM6304	590.GE6304
80A	190 x 140 x 100	IP65	1/5	590.EM8002	590.GE8002
				590.EM8003	590.GE8003
				590.EM8004	590.GE8004
100A	190 x 140 x 100	IP65	1/5	590.EM10003	590.GE10003
				590.EM10004	590.GE10004
125A	300 x 220 x 120	IP55	1/5	590.EM12503	590.GE12503
				590.EM12504	590.GE12504
160A	380 x 300 x 120	IP55	1/5	590.EM16003	590.GE16003
				590.EM16004	590.GE16004

(1) Enclosure OMNIA Series

## ACCESSORIES

### DOOR-LOCKING KIT

DESCRIPTION	ROTARY SWITCHES	PACK QTY.	CATALOGUE NUMBER
Suitable for engineering plastic enclosure	20A, 32A and 40A	1/12	590.BK040
	63A and 80A	1/5	590.BK080
Suitable for metal enclosure	20A, 32A and 40A	1/12	590.BK040H
	63 and 80A	1/5	590.BK080H



## SURFACE MOUNTING - METAL VERSION

Reference standard: IEC 60947-3

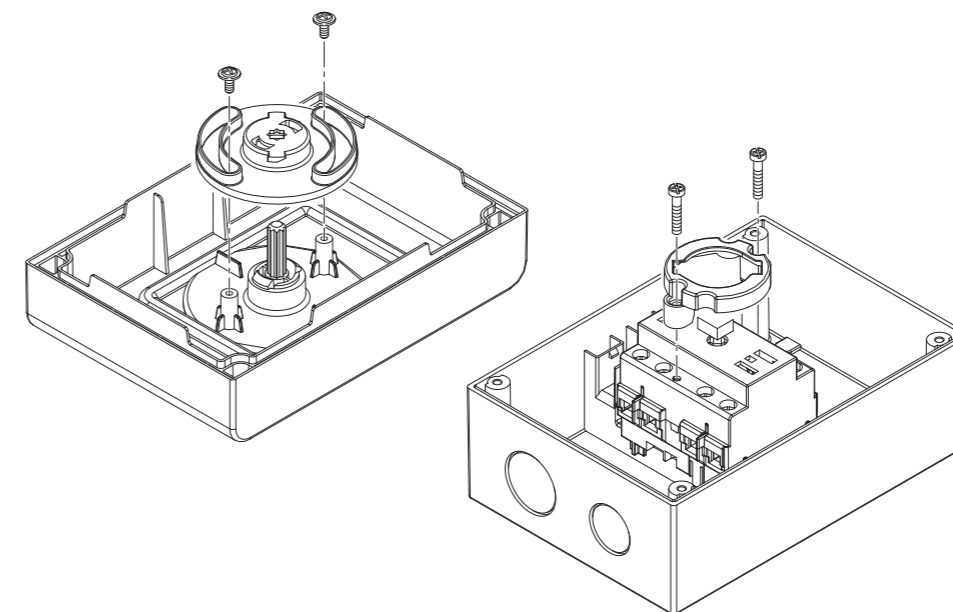
### FOR EMERGENCY SWITCHING

- Padlockable red knob
- Yellow front plate
- Enclosure: RAL 7035 grey

### FOR GENERAL USE

- Padlockable black knob
- Grey front plate
- Enclosure: RAL 7035 grey

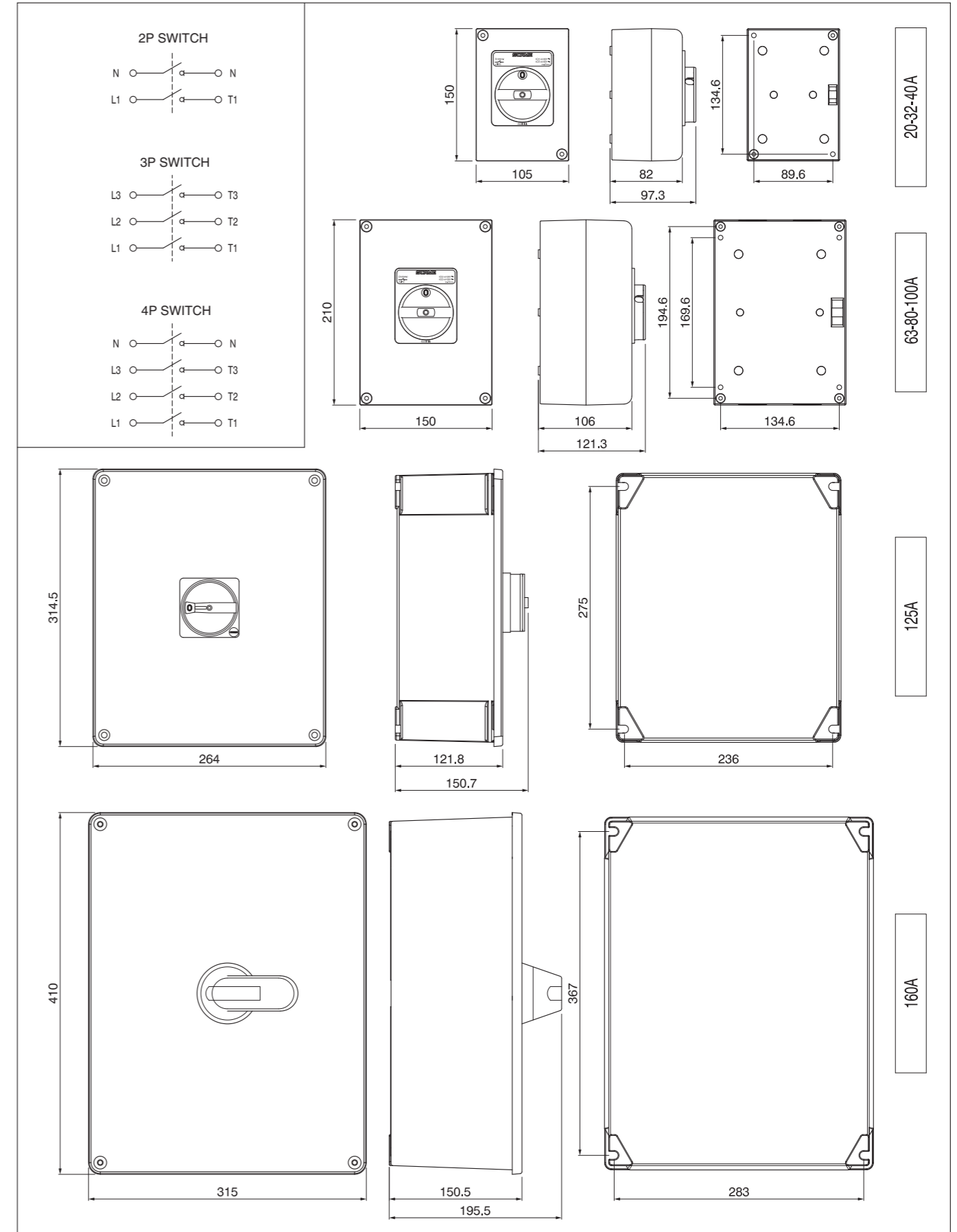
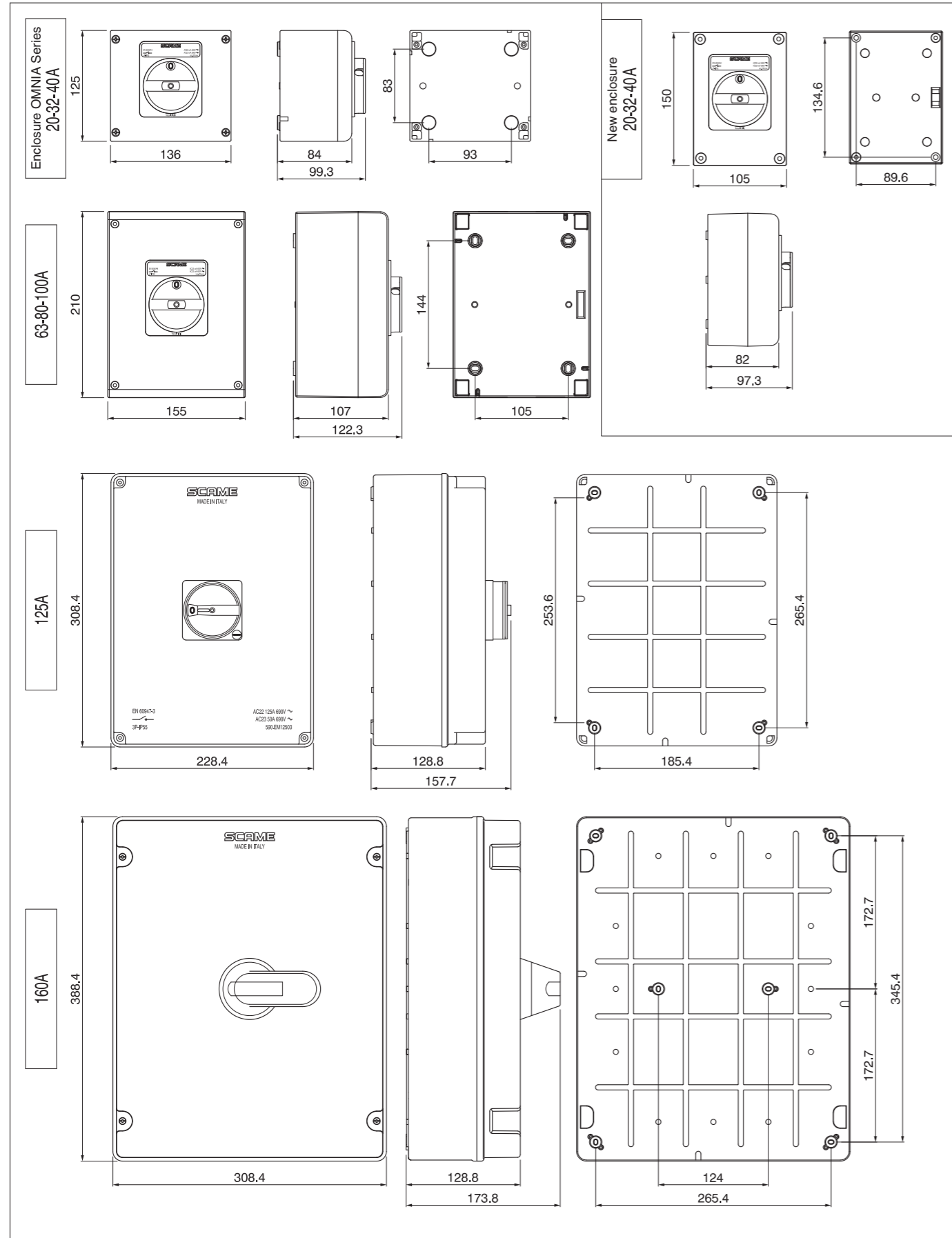
POLES	ENCLOSURE DIMENSIONS (mm)	PROTECTION DEGREE	PACK QTY.	CATALOGUE NUMBER	
				EMERGENCY SWITCHING	GENERAL USE
20A	105 x 150 x 82	IP65	1/12	590.HEM2002	590.HGE2002
				590.HEM2003	590.HGE2003
				590.HEM2004	590.HGE2004
32A	105 x 150 x 82	IP65	1/12	590.HEM3202	590.HGE3202
				590.HEM3203	590.HGE3203
				590.HEM3204	590.HGE3204
40A	105 x 150 x 82	IP65	1/12	590.HEM4002	590.HGE4002
				590.HEM4003	590.HGE4003
				590.HEM4004	590.HGE4004
63A	150 x 210 x 106	IP65	1/5	590.HEM6302	590.HGE6302
				590.HEM6303	590.HGE6303
				590.HEM6304	590.HGE6304
80A	150 x 210 x 106	IP65	1/5	590.HEM8002	590.HGE8002
				590.HEM8003	590.HGE8003
				590.HEM8004	590.HGE8004
100A	150 x 210 x 106	IP65	1/5	590.HEM10003	590.HGE10003
				590.HEM10004	590.HGE10004
125A	315 x 260 x 110	IP65	1/5	590.HEM12503	590.HGE12503
				590.HEM12504	590.HGE12504
160A	410 x 315 x 150	IP65	1	590.HEM16003	590.HGE16003
				590.HEM16004	590.HGE16004



Door-locking kit.



## DIMENSIONS



- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear**
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking



CONTROL AND SIGNALLING ACCESSORIES



GENERAL DESCRIPTION

Scame Parre S.p.A propose this series of auxiliary control and signalling items, the result of monitoring the modern installer's needs and thanks to the wide range able to cover the common applications.

The control and signalling accessories Scame Series TOP22 offer wide space for rapid cabling and are interchangeable to give also the possibility of different configurations.

The pushbuttons, selectors and pilot lights have a 22 mm diameter and the switching elements have a rated current of 16 A.

The emergency pushbuttons (mushroom head) are new in their design and conform to the European standard EN 60 418 which prescribes that the head must be in blocked position before activating the switching element, such working system is defined as "positive opening".

REFERENCE STANDARD

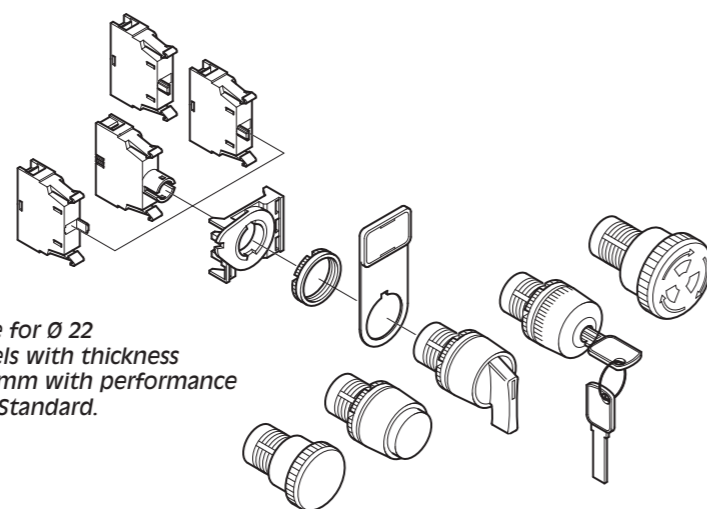
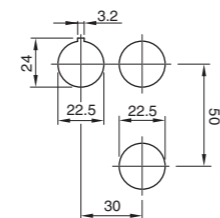
**National Standard CEI EN 60947-5-1**  
 Low Voltage Switchgear  
 Part 5: Control Circuit devices and switching elements  
 Section one: Electromechanical control Circuit devices  
 Identical to: EN 60947-5-1 and IEC 60947-5-1

**European standard EN 60947-5-1**  
 Low-voltage switchgear and controlgear  
 Part 5-1: Control circuit devices and switching elements -  
 Electromechanical control circuit devices

**International standard IEC 60947-5-1**  
 Low-voltage switchgear and controlgear  
 Part 5: Control circuit devices and switching elements  
 Section One: Electromechanical control circuit devices

TOP22 Series is in accordance with the following international standards: IEC 60947-5-1, VDE 0660, NFC 63 140.

Performance according to EN 60947-5-1



Mounting scheme for Ø 22 elements on panels with thickness between 1 and 6 mm with performance and EN 60947-5-1 Standard.

STRUCTURAL CHARACTERISTIC

- Casing made of self-extinguishing, thermoplastic material with total insulation.
- Protection degree: IP65 in conformity with EN 60529 (IEC 60529)
- Service temperature: -25°C +70°C
- Storage temperature: -40°C +70°C
- Cable inlet: M16 - M20
- Emergency stop push buttons according to EN 418
- Luminous push buttons and selectors' mechanical life: 1 million operations.
- Emergency mushroom push buttons mechanical life: 0.3 million operations
- Momentary push buttons mechanical life: 3 million operations.

EMERGENCY PUSH BUTTON



Emergency stop control station turn to release with indication.



Emergency stop control station with key to release.

Action in case of an emergency (red push button on yellow base). The emergency command installation is efficient if realized in proximity of the source of danger.



Auxiliary contact.





**TECHNICAL INFORMATION**

**CONTACT ELEMENTS**

- Self-extinguishing material
- Rated current: 16A
- Insulating voltage: C group (according to IEC 60947-5-1)
- Insulating voltage: C group (according to VDE 0660-200)
- Contact resistivity:  $\leq 25 \text{ m}\Omega$
- Contact block with double break self-cleaning and slow make contact NC positive opening
- Operating strength: 0,4 N
- Terminal protection degree: IP2X as IEC 60529
- Certification: UL – Underwriters’ Laboratories (United States) and CSA – Canadian Standards Association (Canada)

**CONTROL AND SIGNALLING ACCESSORIES**

- Self-extinguishing, thermoplastic material
- Climatic conditions
  - Mild climate (DIN 50014) - 23/50
  - Damp climate (DIN 50015) - 23/83
  - Hot damp climate (DIN 50015) - 40/92
  - Unsettled damp climate (DIN 50016) - FW24
- Temperature
  - Operation: from -25°C +70°C
  - Storage: from -40°C +70°C
- Protection degree: IP65 according to IEC 60529 when they are assembled in housing with the same IP
- Terminal block: IP2X according to IEC 60529
- Insulating voltage: 690V according to IEC 60529
- Isolation category: Group C according to VDE 0110
- Contact block:
  - Slow operation
  - Double break
  - Self cleaning
  - Positive break



Flush button.

**ENCLOSURES**

- Self-extinguishing, thermoplastic material
- Protection degree: IP65
- Double performance with lid
- Cable inlet: M20 and M16
- Yellow/black (emergency)
- Grey (control)
- Double insulation according to EN 60 439-1

**ELECTRICAL RATING**

- Rated thermic voltage (Ith): 16A
- Limits of usage (as IEC 60947-5-1):

<i>Cat. AC15</i>									
Voltage Ue (V)	24	60	110	230	400	440	500	690	
Current Ie (A)	16	12	8	6	4,5	3,5	3	1	
<i>Cat. DC13</i>									
Voltage Ue (V)	24	48	60	110	220				
Current Ie (A)	2	1,2	0,85	0,4	0,25				



Key selector switch



Momentary mushroom (momentary buttons)

**AUXILIARY CONTROL EQUIPMENTS**

Reference standards: IEC 60947-5-1, EN 60947-5-1 and CEI EN 60947-5-1 (CEI 17-45)

**GENERAL CHARACTERISTIC**

- Fixing by metal ring nut-hole diameter 22mm
- Provided with contact carrier base plate
- Clamping of the baseplate to the equipment by swing lever

**Ø22 mm PUSH BUTTONS**

DESCRIPTION	COLOUR	PACK QTY.	CATALOGUE NUMBER
Flush button		10	590.PPRN1
		10	590.PPRN2
		10	590.PPRN5
Protruding button		10	590.PPSN1
		10	590.PPSN8
		10	590.PPRL2
Illuminated flush button		10	590.PPRL5



**MUSHROOM-HEAD EMERGENCY PUSH BUTTONS (ACCORDING TO EN 418)**

DESCRIPTION	MUSHROOM-HEAD DIAMETER (mm)	COLOUR	PACK QTY.	CATALOGUE NUMBER
Release by key	Ø40		10	590.PPFN1C4N
Without (temporary) locking	Ø40		10	590.PPFN1M4N
Release by rotation	Ø40		10	590.PPFN1R4N
Release by rotation	Ø60		10	590.PPFN1R6N



## AUXILIARY CONTROL EQUIPMENTS

Reference standards: IEC 60947-5-1, EN 60947-5-1 and CEI EN 60947-5-1 (CEI 17-45)

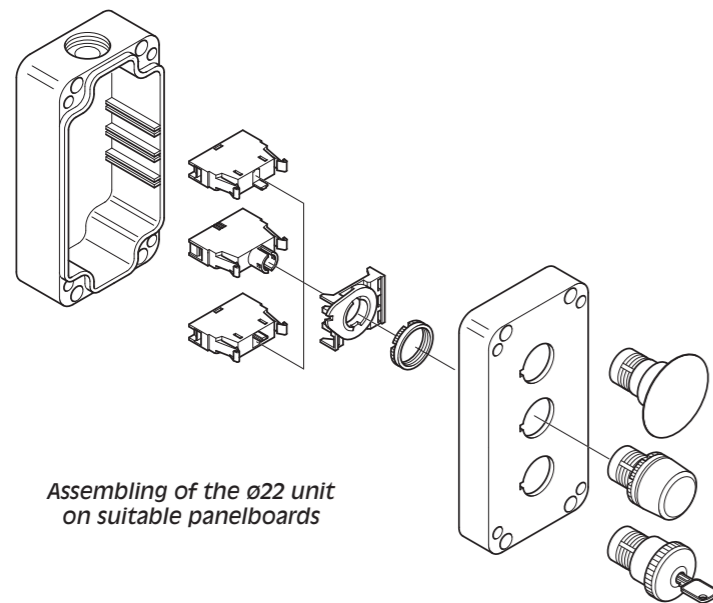
### LEVER SELECTORS

DESCRIPTION	ROTATION ANGLE	COLOUR	PACK QTY.	CATALOGUE NUMBER
2 steady positions	90°	Black	10	590.PSLN8D0
3 steady positions	2x90°	Black	10	590.PSLN8T0
2 pulse positions	60°	Black	10	590.PSLN8D2
3 pulse positions	2x60°	Black	10	590.PSLN8T3

### KEY SELECTORS

- Key drawing when on "zero" position

DESCRIPTION	ROTATION ANGLE	COLOUR	PACK QTY.	CATALOGUE NUMBER
2 steady positions	90°	Black	10	590.PSCN8D0C
3 steady positions	2x90°	Black	10	590.PSCN8T0C



Assembling of the 022 unit on suitable panelboards



## AUXILIARY CONTROL EQUIPMENTS

Reference standards: IEC 60947-5-1, EN 60947-5-1 and CEI EN 60947-5-1 (CEI 17-45)

### ENBLOC PILOT LAMPS

- Electric bulb not included
- Maximum power supply voltage 250V~
- BA9s bulb coupling

DESCRIPTION	ASSEMBLING HOLE (mm)	COLOUR	PACK QTY.	CATALOGUE NUMBER
Pilot lamp	Ø22	Red	10	590.PLML1
		Green	10	590.PLML2
		Yellow	10	590.PLML3
		Blue	10	590.PLML4
		White	10	590.PLML5



### CONTACT BLOCKS

- Snap catch
- The contacts may also be used as auxiliary equipments for SCAME operation switch

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
NC contact	10	590.PL004001
NO contact	10	590.PL004002
Power supply unit for pilot lamp(*)	10	590.PL004007

\* Maximum direct power supply, 250V with max 2W bulbs.



### ACCESSORIES

DESCRIPTION	PACK QTY.	CATALOGUE NUMBER
Black cap for Ø22 mm holes	10	590.PTRN8
Black holder for rectangular labels	10	590.PPTN8
Rectangular blank label	10	590.PTA00
Ø 60mm yellow emergency marker	10	590.PTE/I
Pin wrench for ring nuts and bulb drawing	10	590.PCF



## CONTROL STATIONS

Reference standard: IEC 60947-5-1, EN 60947-5-1 and CEI EN 60947-5-1 (CEI 17-45)

- Fixing hole Ø22 mm with metal ring nut
- The double entries have the facility of cabling at the work-bench and fixing the enclosure without re-opening the cover

### IP65 - ENCLOSURES

- Empty enclosures for Auxiliary control equipment
- Grey base
- Grey cover

DESCRIPTION	CABLE ENTRY	PACK QTY.	CATALOGUE NUMBER
1 gang	M16 - M20	1/12	590.PR01K
2 gang	2 x M20	1/10	590.PR02K
3 gang	2 x M20	1/10	590.PR03K



### COMPLETE PUSH-BUTTON PANEL - IP65

- Enclosures complete with control and indicator lamp
- Grey base
- Grey cover

DESCRIPTION	CONTACT	CABLE ENTRY	PACK QTY.	CATALOGUE NUMBER
1 gang	1 Black push button	1NO M16 M20	12	590.PR01RN8
2 gang	1 green flush button (start) 1 red flush button (stop)	1NO 1NC	10	590.PR02A
3 gang	1 green flush button (start) 1 red flush button (stop) 1 red indicator lamp (indicator)	1NO 1NC L	10	590.PR03A



NO= normally open; NC= normally closed; L= lamp.

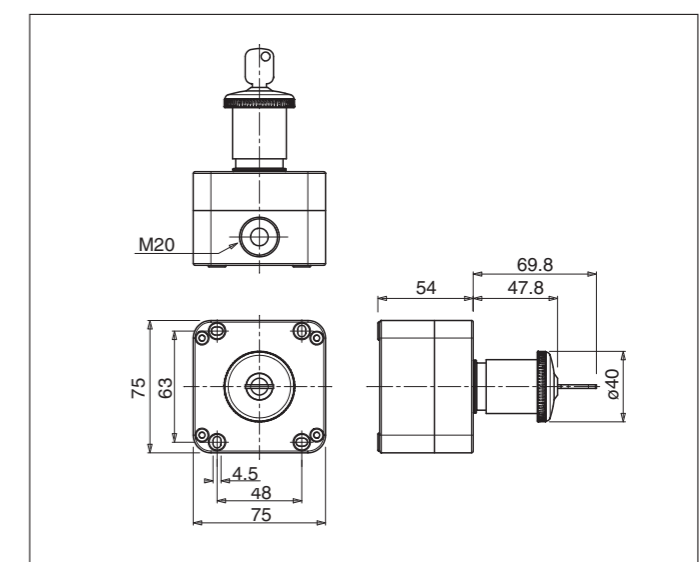
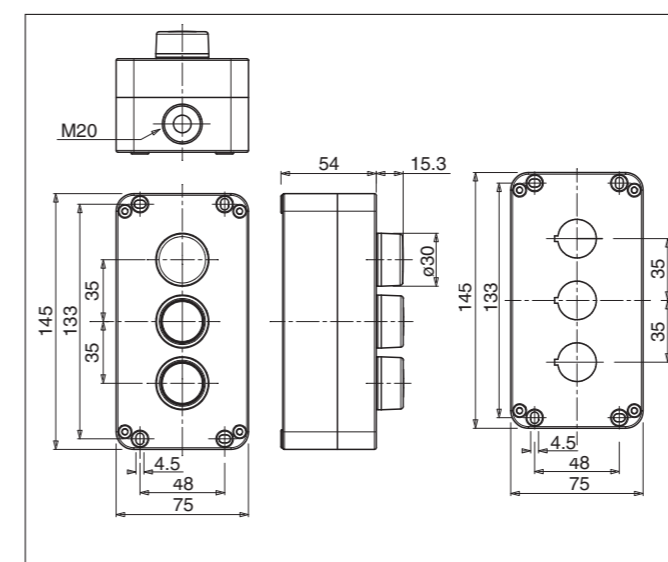
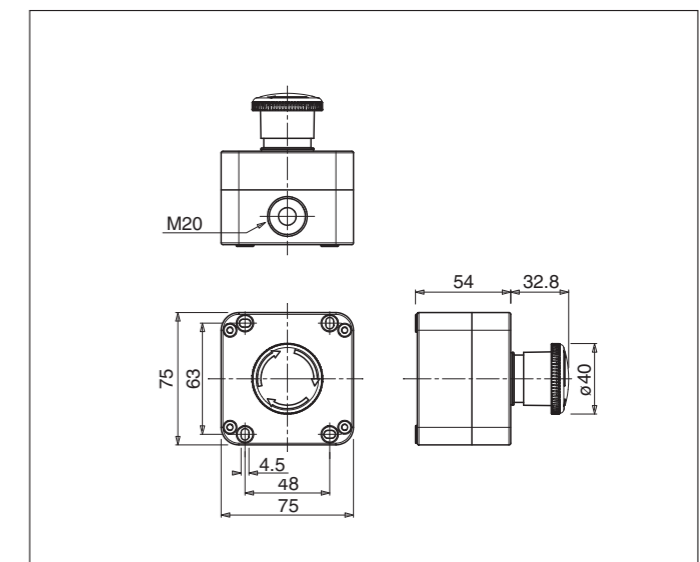
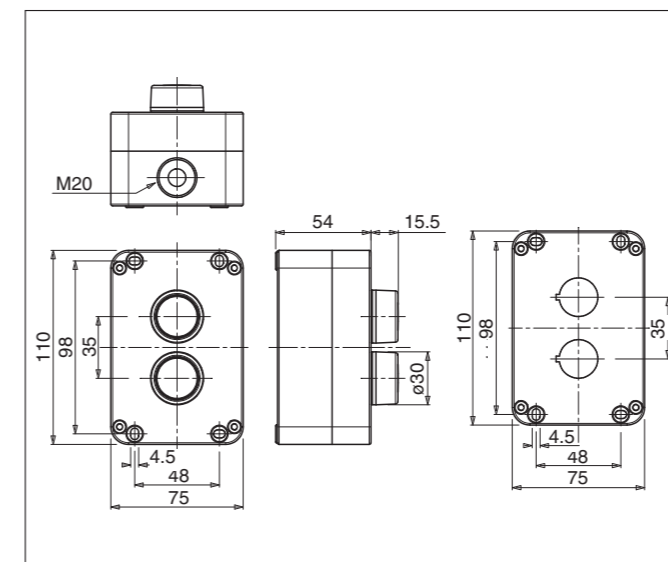
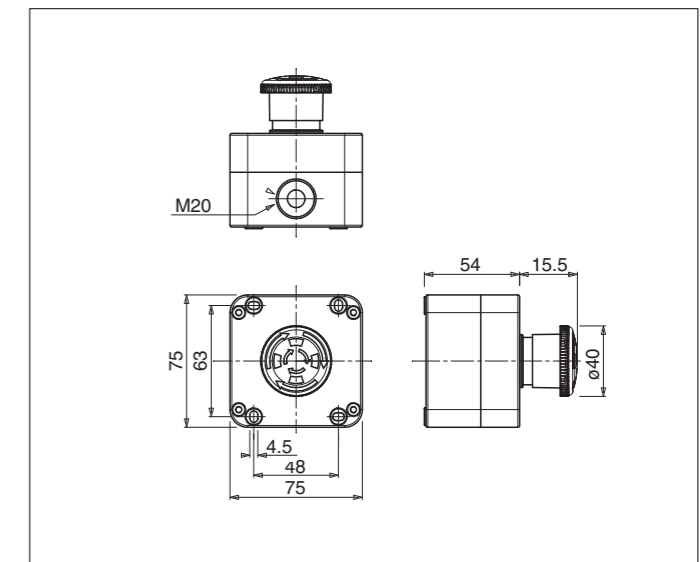
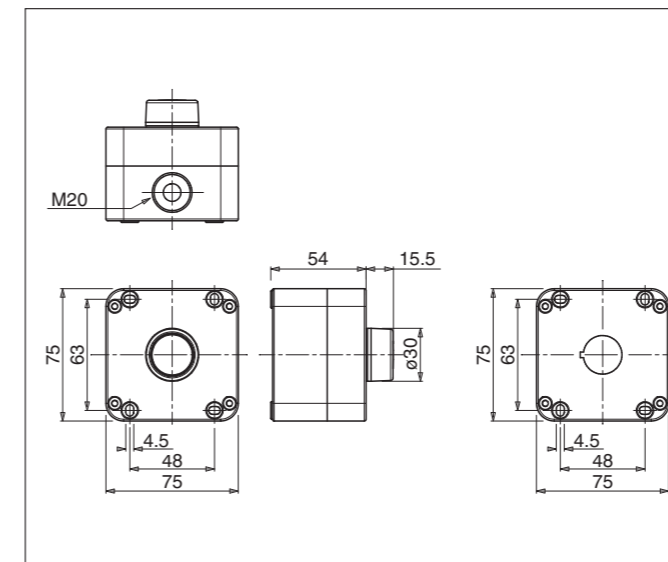
### EMERGENCY - IP65

- Mushroom push-buttons for emergency stop
- supplied with 1 NC contact block
- Black base
- Yellow cover
- Red operator

DESCRIPTION	CABLE ENTRY	PACK QTY.	CODICE ARTICOLO
1 gang - twist release with indicator	M16 - M20	12	590.PR01R4S
1 gang - key release	M16 - M20	12	590.PR01C4N
1 gang - twist release	M16 - M20	12	590.PR01R4N



## DIMENSIONS



(dimensions in mm)



Plugs and sockets



Adaptors



Domestic cable reels



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking

**LIGHT-FITTINGS**

**Industrialisation**



Most of the moulds and tools needed for manufacture are made in SCAME's own production sites.



**MIZAR Series  
HYDRA Series  
HALE Series**







## LIGHT FITTINGS



### GENERAL DESCRIPTION

This range of light-fixtures is equally suitable for construction sites, industrial applications, commercial applications or the home. Well-designed, with the latest technology, it's easy to fit them onto any type of support (scaffolding, vertical walls of wood or brickwork, ceilings). The new light-fixtures are a valuable addition to our range of electrical equipment for the construction site and to our systems for industrial use.

## REFERENCE STANDARD

**European standard EN 60598-1**  
**International standard IEC 60598-1**  
Luminaires  
Part 1: General requirements and tests

**European standard EN 60598-2-1**  
**International standard IEC 60598-2-1**  
Luminaires  
Section 1: Fixed general purpose luminaires

## VERSIONS

- For incandescent lamps - 60W 250V~
  - Thermoplastic diffuser - IP44
  - Polycarbonate diffuser - IP44 or IP55

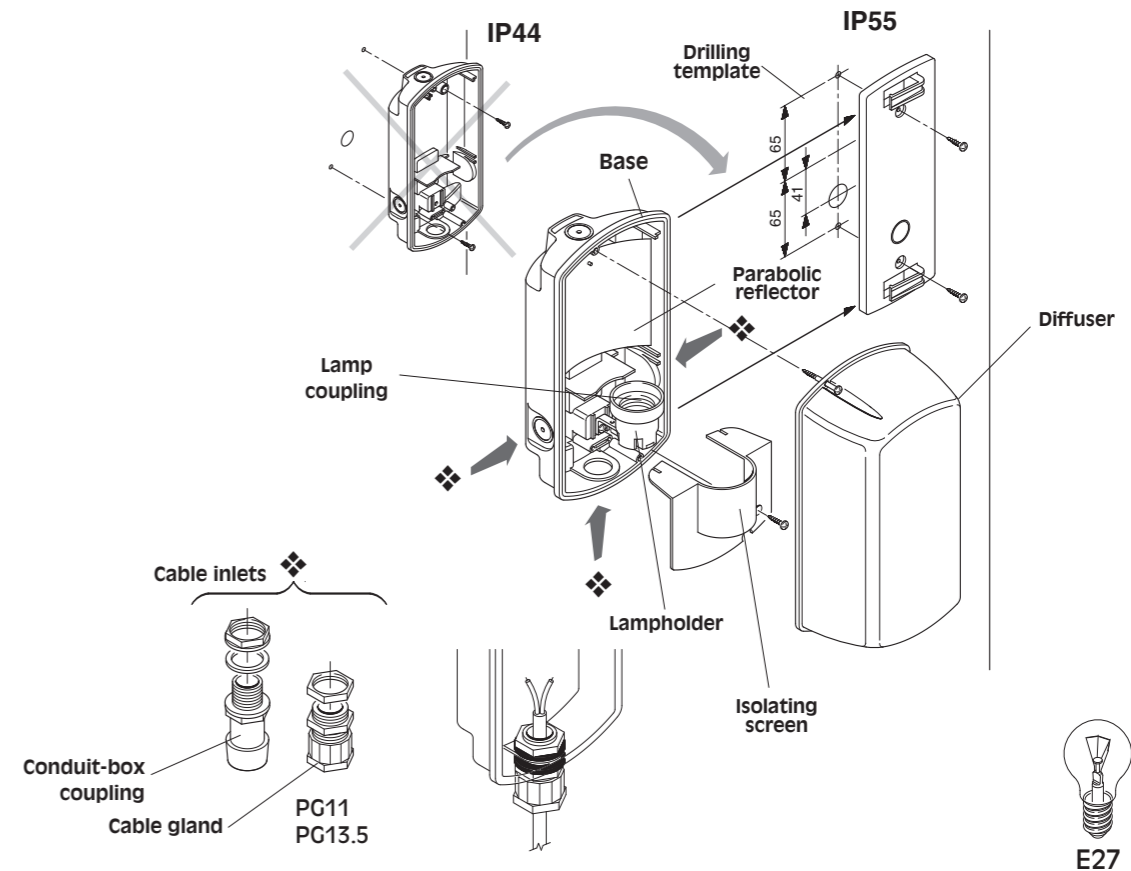
## TECHNICAL INFORMATION

- Body made of thermoplastic material
- For wall or ceiling mounting
- Five PG11/PG13.5 cable inlets
- Two captive screws for holding down the diffuser
- Lampholders available: E27, B22 and G23
- Parabolic reflector made of aluminium
- Total insulation □
- Knockout drainage holes
- Suitable for installation onto flammable surfaces
- Modern design, suitable for any environment
- Flexibility of use: the supply cable can enter through all the sides or through the bottom of the casing, regardless of the type of fixing system
- IMQ ® approved, guaranteeing the quality of the product
- Conforms to EN 60598-1 and EN 60598-2-1, equivalent to IEC 598-1 and IEC 598-2-1
- IP44 or IP55

MIZAR bulkhead lights can be used both inside and outside on industrial, commercial or domestic buildings, with the certainty that they are reliable, long-lasting and safe.

## PRACTICAL ADVICE

- ❖ *The cable ends entering the terminals of the lampholder should be carefully prepared to make sure that the requisite clearance between them is observed.*
- ❖ *Tighten the screws of the terminals properly to avoid overheating, which might cause fire hazards or damage the cables.*
- ❖ *Never leave the lampholder without the lamp, otherwise the live parts could become accessible. Switch off the system before changing the lamp.*
- ❖ *Inspect the lampholders regularly and replace them as soon as signs of wear and tear, breakage or burns appear.*



MIZAR Series  
Version for fluorescent tubes

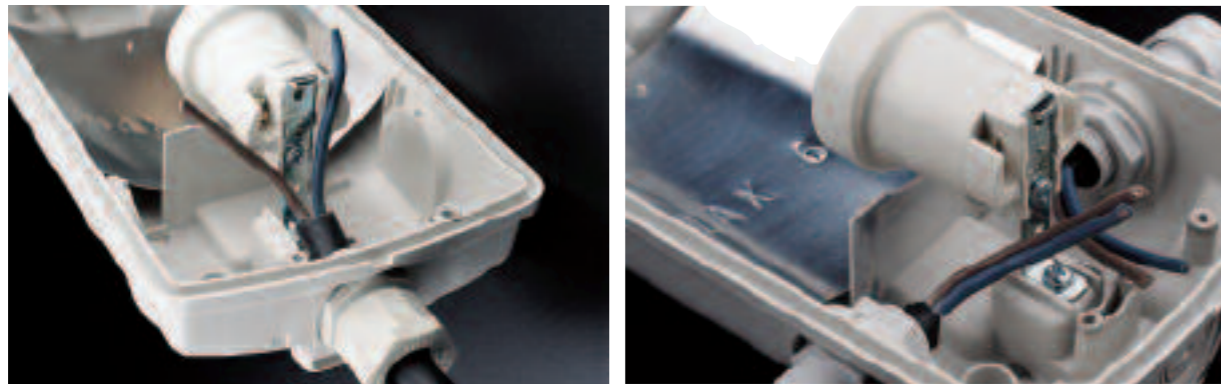




CABLE INLET



Five knockouts for PG11/PG13.5 cable inlets located around the four sides and on the base provide a wide range of installation options: with cable sleeve, with cable gland or with couplings between Ø 16 mm rigid or flexible conduit and box. A flexible conduit for flush mounting and power supply from the rear of the base can also be installed.



This layout of knockout cable inlets allows a number of different installation possibilities, with power supply to the fixture from any side or through cabling in and out when several fixtures need to be supplied in parallel.

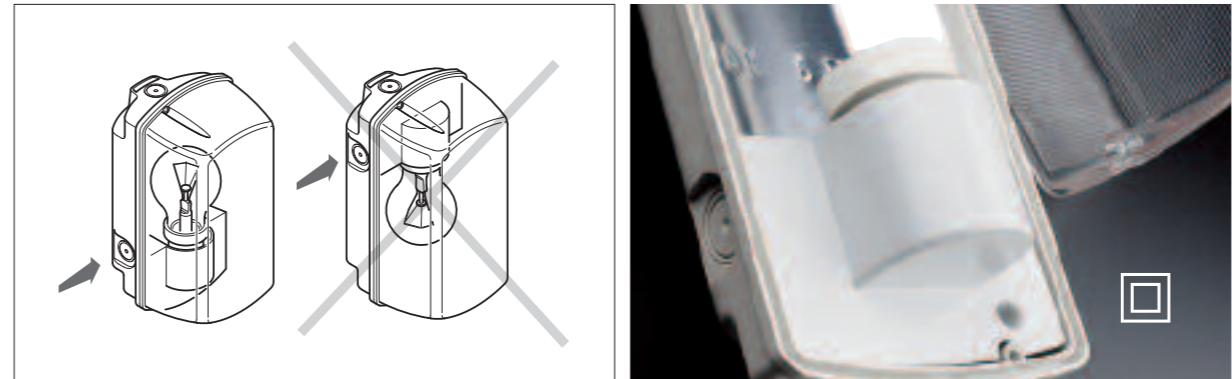
FIXING



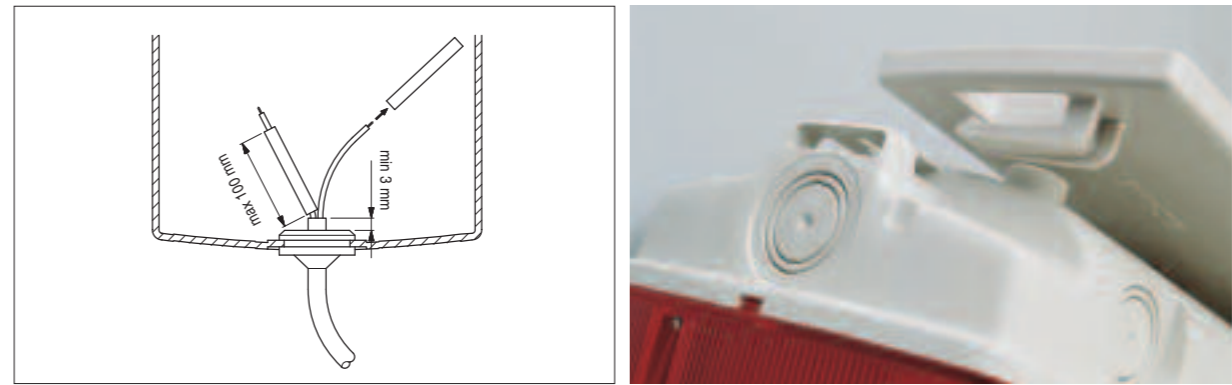
MIZAR Series light-fittings are fitted with a slot on the rear of the base for hooking onto a nail, screw or hook, or for fastening to poles, pipes, bars or scaffolding using one or two cable ties. For permanent installation, the fixtures can be wall or ceiling mounted using screw anchors.



CORRECT INSTALLATION

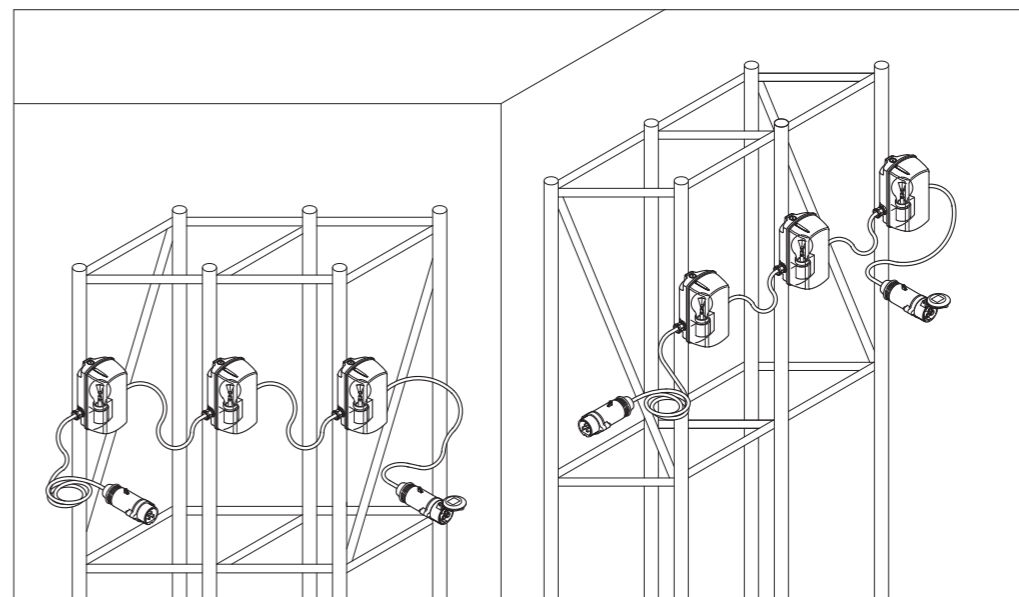


Overheating may affect the life of the lamp-holder and of the cables. To avoid this the lamp must be upright when mounting the fixture vertically, i.e. the lampholder must be in the lower part of the fixture. This also guarantees the protection degree. An isolating screen provides total insulation, and by segregating the cabling protects the operator against contact with live parts when replacing the lamp.



The mounting kit included in the supply comes with heat resistant sleeving for protecting the power supply cables from the heat generated by the lamp when in use. A fast mounting plate for maintaining the protection degree is provided with the IP55 version.

RED BULKHEAD LIGHTS FOR INDICATING WORKING AREAS



Distribution assemblies for night-time power supply of lights indicating working areas, on page 427

- Plugs and sockets
- Adaptors
- Domestic cable reels
- Lampholders
- TV & Phone
- Plates and devices
- Enclosures
- Plugs and sockets
- Interlocked sockets
- Switchgear
- Light fittings
- Distribution assemblies
- Adaptors
- Industrial cable reels
- Accessories
- Wire connectors
- Conduits
- Trunking

## LIGHT FITTINGS

For fixed installations

Reference standards: CEI EN 60598-1 and CEI EN 60598-2-1

- Base made of RAL 7035 grey thermoplastic material
- Aluminium parabolic reflector
- Porcelain lampholder for B22 versions
- T230°C resistant resin lampholder for E27 versions
- Protection degree IP44 or IP55 (wall mounting)

### RECTANGULAR BULKHEAD LIGHT FOR INCANDESCENT LAMPS

- Thermoplastic diffuser (\*)
- Lamp not supplied

LAMP POWER	LAMPHOLDER	COLOUR OF DIFFUSER	PACK QTY.	IP44 CATALOGUE NUMBER
Max 60W	E27	opal	12	780.2762
Max 60W	B22	opal	12	780.2262

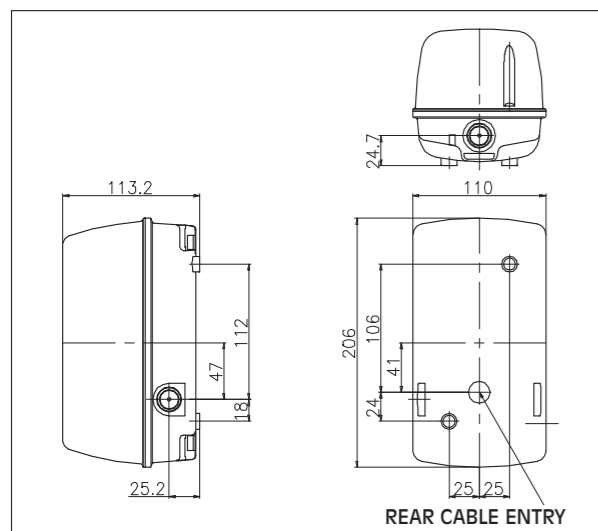
(\*) For continuous use, use the versions with polycarbonate diffuser.

### RECTANGULAR BULKHEAD LIGHT FOR INCANDESCENT LAMPS

- Polycarbonate diffuser
- Lamp not supplied

LAMP POWER	LAMPHOLDER	COLOUR OF DIFFUSER	PACK QTY.	IP44 CATALOGUE NUMBER	IP55 CATALOGUE NUMBER
Max 60W	E27	transparent	1/12	781.2760	786.2760
Max 60W	E27	red	1/12	781.2761	786.2761
Max 60W	B22	transparent	1/12	781.2260	786.2260
Max 60W	B22	red	1/12	781.2261	786.2261

### MIZAR SERIES



(dimensions in mm)

## LIGHT FITTINGS

For indicating roadside construction sites

Reference standards: EN 60598-1 and EN 60598-2-1

- Base made of RAL 7035 grey thermoplastic material
- Protection degree: IP44 or IP55

### RED BULKHEAD LIGHT FOR INDICATING WORK SITES - IP55

- Battery powered

DESCRIPTION	PACK QTY.	IP55 CATALOGUE NUMBER
Batteries not included	1/12	786.0100

### RED BULKHEAD LIGHT FOR INDICATING WORK SITES - IP55

- With 220V-powered LED flasher

DESCRIPTION	PACK QTY.	IP55 CATALOGUE NUMBER
Automatic twilight turn-on and fixed light	1	786.0200
Automatic twilight turn-on Two operation modes: fixed light or flashing light With mode selector switch	1	786.0210
Direct turn-on (without twilight turn-on) and fixed light	1	786.0220

### RED BULKHEAD LIGHTS FOR INDICATING WORKING AREAS - IP44

- Wired with IEC 309 standard plug, 2P, 24V~ 16A
- Rubber cable, 2x1.5mm<sup>2</sup>
- Bulb included, E27 25W 24V~
- Diffuser colour, red

DESCRIPTION	PACK QTY.	IP44 CATALOGUE NUMBER
1 Bulkhead light - 10m cable	1	781.2761/1
2 Bulkhead lights - 10+6m cable	1	781.2761/2
3 Bulkhead lights 10+6+6m cable, industrial connector 2P 24V~ 16A	1	781.2761/3





## LIGHT-FITTINGS FOR FIXED INSTALLATIONS - 100 W



### GENERAL DESCRIPTION

Attractive, strong, with a high level of protection against water and dust, the bulkhead lights of the HYDRA Series are especially suitable for outdoor installations, both on walls and ceilings in domestic, industrial and commercial environments. The various combinations that are available will satisfy most installation requirements. They look good and have a particularly well thought-out design.

### VERSIONS

The HYDRA Series is made up of 3 types of bulkhead light, defined by their geometrical shape;

- ROUND
- SQUARE
- OVAL

and can hold the following bulbs:

- |                            |        |
|----------------------------|--------|
| E27 and B22 (incandescent) | - 100W |
| E27 and B22 (fluorescent)  | - 20W  |

## REFERENCE STANDARD

**European Standard EN 60598-1**  
corresponds to IEC 60598-1  
Luminaires  
Part 1: General requirements and tests

**European Standard EN 60598-2-1**  
derived from IEC 60598-2-1  
Luminaires  
Part 2: Particular requirements  
Fixed general-purpose luminaires

**HYDRA Series ROUND type - E27 - 100 W**  
Depicts the supply cable inlet through cable gland PG13.5, the knock-out draining hole, the IP 65 holding seal set in its groove and the aluminium parabolic reflector.



## TECHNICAL CHARACTERISTICS

- Diffuser in transparent polycarbonate, internally glazed (anti-glare), UV, stabilised (anti-yellowing).
- Polycarbonate base, RAL 7035 grey
- Optional white or black frame which completely hides the base and modifies its external appearance (particularly good for installations with flush mounting conduit)
- Aluminium parabolic reflector (for incandescent bulbs)
- Stainless steel screws
- Supply: 250V~
- Protection degree IP44 or IP65

## STRUCTURAL CHARACTERISTICS

- Surface or ceiling mounting with 2 screws (supplied in an accessories kit with screws, fixing plugs, washers and seals)
  - Cable inlets for conduit are placed on the upper and lower sides, allowing for "entry-exit" power supply. Each inlet can take:
    - cable sleeves for conduit up to Ø 16 mm
    - cable glands PG13.5
    - rigid conduit-box coupling connection Ø 16 mm
    - flexible conduit-box coupling connection Ø 12 mm
  - A rear entry cable inlet is possible for installations with flush mounting conduit:
    - cable sleeve for conduit up to Ø 16 mm
    - cable gland PG9
  - Insulation CLASS II □
  - Knock-out draining holes
  - Suitable for installation on flammable surfaces ▼
- The fitting guarantees that if something goes wrong with the power supply the temperature on the surface of the installation does not reach dangerous levels.
- ROUND version is available for EMERGENCY
  - Versions fluorescent/emergency have a reactor with low loss ballast



**HYDRA Series: ROUND type with optional black frame,** dimensions Ø 270 X 134 mm



**HYDRA Series: SQUARE type without optional frame** dimensions 270 X 270 mm



**HYDRA Series: OVAL type with optional black frame,** dimensions 305 X 180 X 129 mm

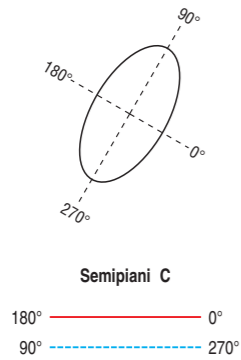




## POLE DIAGRAM

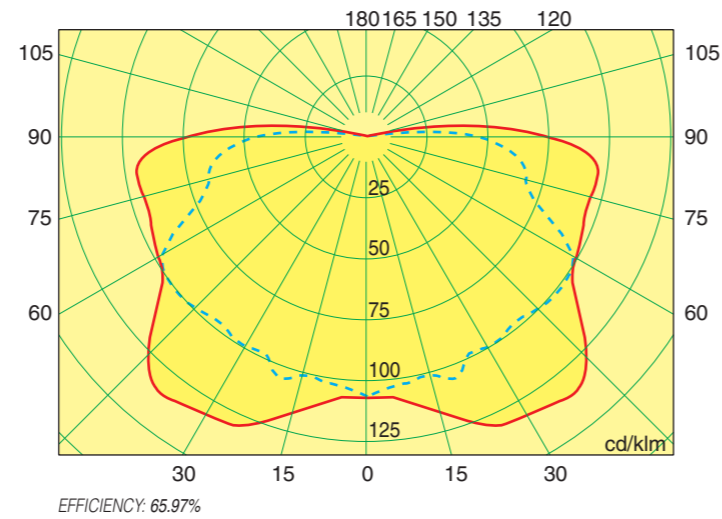
### E27 - B22

- Incandescent bulb: 100W E27
- Total flux: 1350 lm

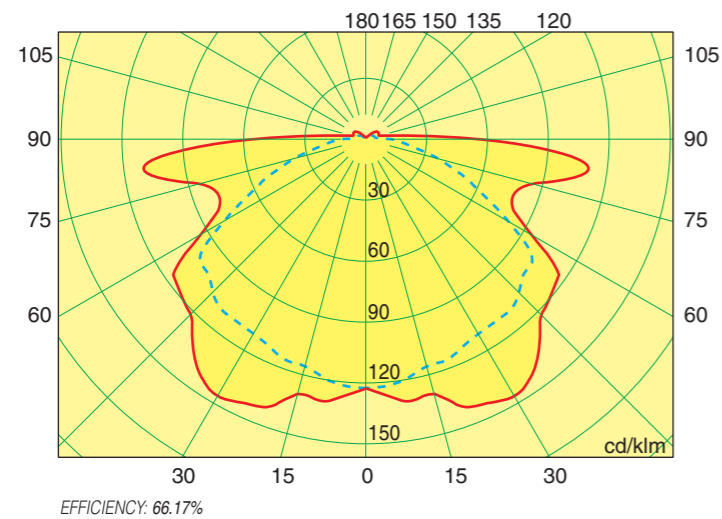


Co-ordinates system: c-gamma

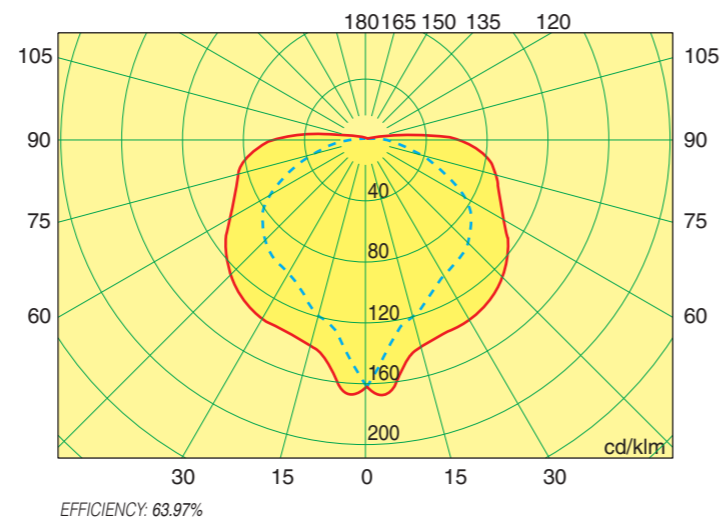
### OVAL



### SQUARE



### ROUND



## ENEC MARK

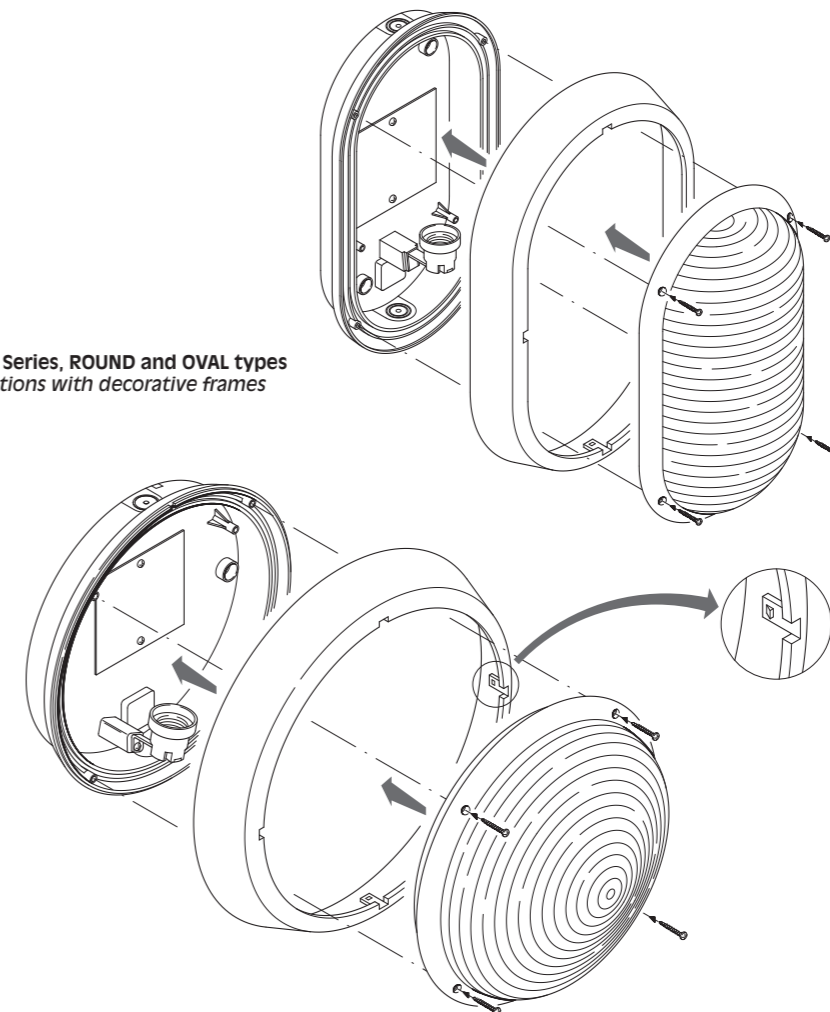
The HYDRA Series conforms to all the relevant EN standards and has received ENEC certification from IMQ i. The ENEC mark (European Norms Electrical Certification) allows light fittings to be marketed freely throughout Europe and certifies that the products conform to EN standards.



## LUM Agreement

One mark for fittings and components for lighting that is recognised across Europe: Spain, Belgium, Italy, Portugal, the Netherlands, Ireland, Luxembourg, France, Greece, Germany, Austria, Great Britain, Switzerland, Sweden, Denmark, Finland, Norway and Hungary.

HYDRA Series, ROUND and OVAL types  
Installations with decorative frames



## LIGHT-FITTINGS For Fixed Installations

Reference Standard IEC 60598-1 and IEC 60598-2-1

- Diffuser and base in polycarbonate
- Aluminium parabolic reflector
- Screws with galvanised anti-rusting treatment
- Lampholder in resin (B22 in porcelain)

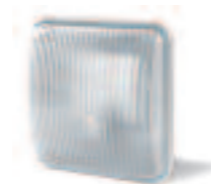
### BULKHEAD LIGHT ROUND

COUPLING	LAMP	PACK QTY.	CATALOGUE NUMBER IP44	CATALOGUE NUMBER IP65
E27	100W	1/6	791.12710	796.12710
B22	100W	1/6	791.12210	796.12210



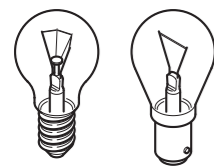
### BULKHEAD LIGHT SQUARE

COUPLING	LAMP	PACK QTY.	CATALOGUE NUMBER IP44	CATALOGUE NUMBER IP65
E27	100W	1/6	791.22710	796.22710
B22	100W	1/6	791.22210	796.22210



### PLAFONIERA TIPO OVALE

COUPLING	LAMP	PACK QTY.	CATALOGUE NUMBER IP44	CATALOGUE NUMBER IP65
E27	100W	1/6	791.32710	796.32710
B22	100W	1/6	791.32210	796.32210



E27

B22

(dimensions in mm)

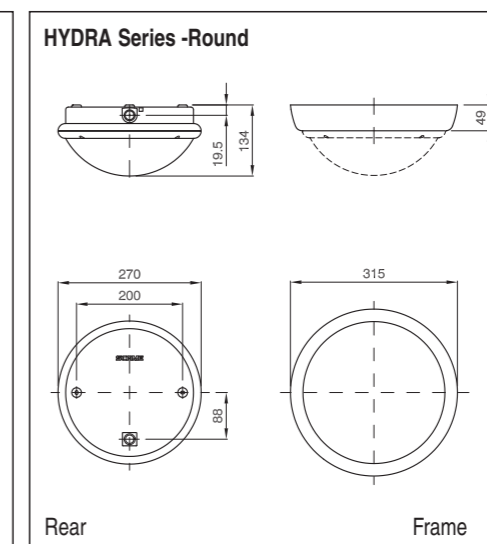
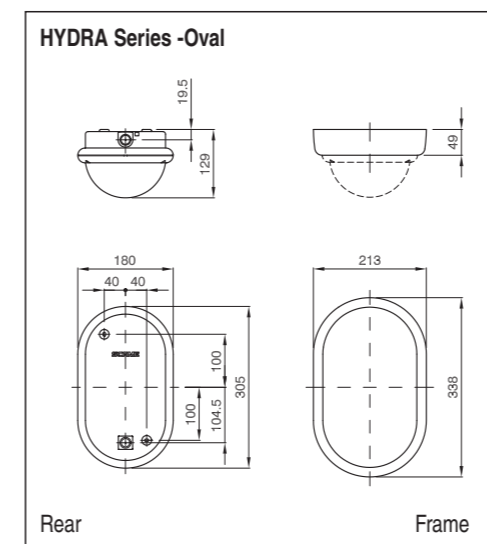
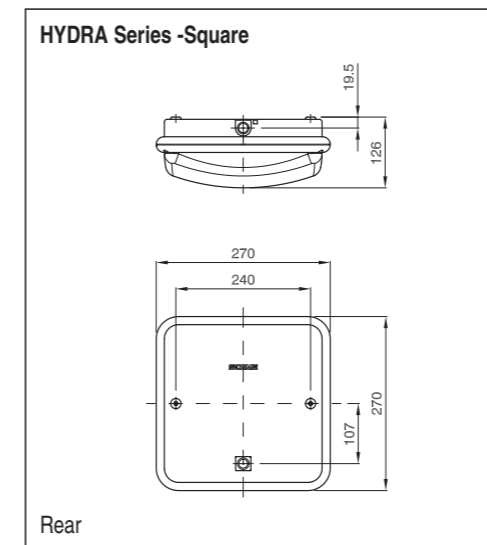
## ACCESSORIES Light Fittings

Reference standard: IEC 60598-1 and IEC 60598-2-1

### DECORATIVE FRAME

- Available in black or white
- Thermoplastic material

	COLOUR	PACK QTY.*	CATALOGUE NUMBER
ROUND		1/6	790.101
		1/6	790.102
OVAL		1/6	790.301
		1/6	790.302



(dimensions in mm)





## PORTABLE LIGHTING - 60 W



### GENERAL DESCRIPTION

With the HALE Series SCAME has two versions of portable lamps:

- HALE Series IP20
- HALE Series IP65

for solving lighting problems in situations where, because of the nature of the work, a portable lamp is required.

The IP55 version has been made with a particularly robust structure and can be subjected to high mechanical stresses, including an impact or fall, without damage. It can also be used outdoors. The IP20 version is for use inside industrial, commercial and domestic premises, in normal environmental conditions while the IP65 version is for both inside and outdoor use on industrial sites, building sites and in workshops where environmental conditions are usually demanding. SCAME's portable lights can be supplied from the mains or from a safety supply source (SELV). When supplied from a safety supply source the lamps can be used in wet or very damp environments and can be in contact with large metal structures.

### REFERENCE STANDARD

European Standard EN 60598-1  
International standard IEC 60598-1  
Luminaires  
Part 1: General requirements and tests

European Standard EN 60598-2-8  
International standard IEC 60598-2-1  
Luminaires  
Part 2: Particular requirements  
Portable lights

### D.P.R. 27-4-1955 n° 547 (extract) art. 317

Portable electrical lamps must meet the following requirements:

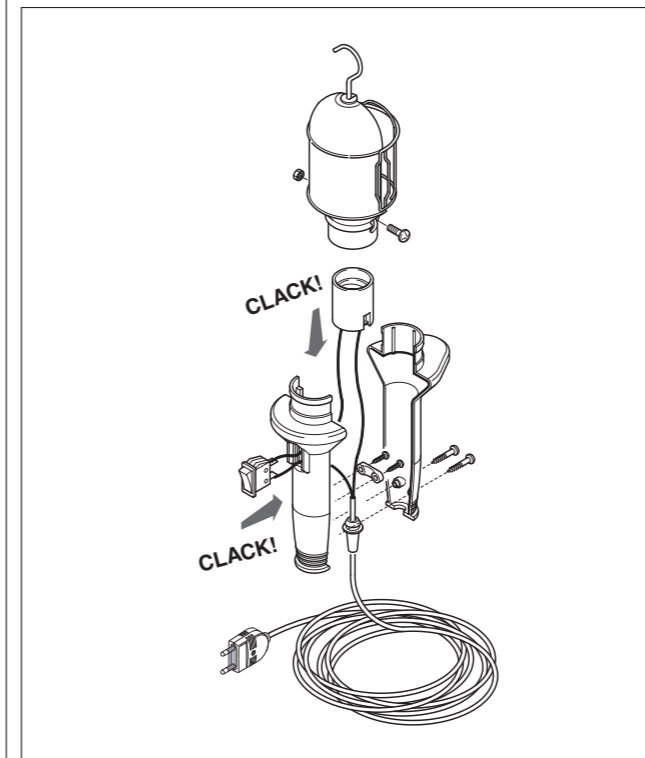
- a - grip made of non-hygroscopic insulating material
- b - full protection against accidental contacts with live parts
- c - lamp protection cage secured to the insulating grip by means of an external collar
- d - perfect insulation of the live portions of any metal parts in contact with the grip

### art. 318

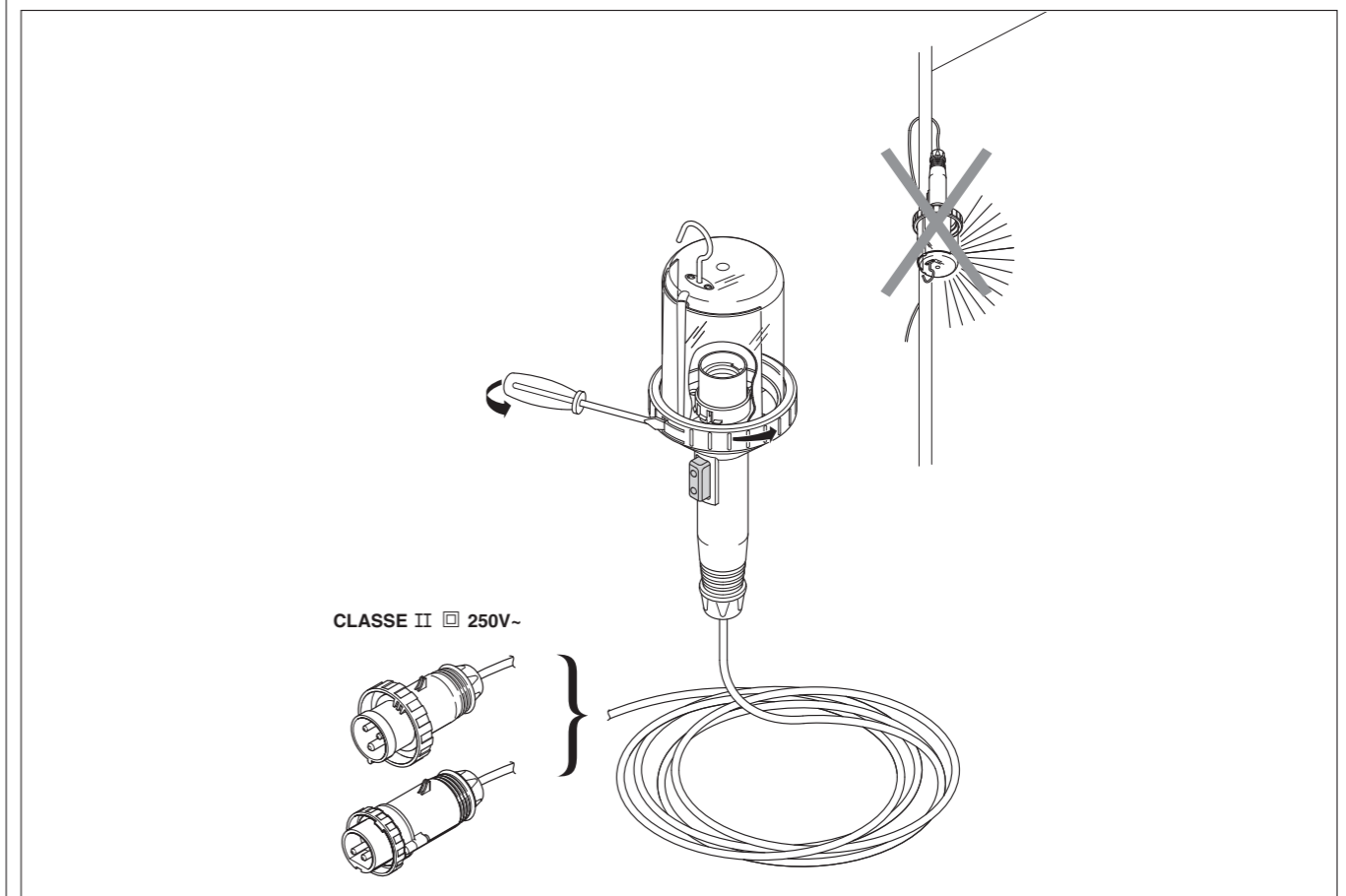
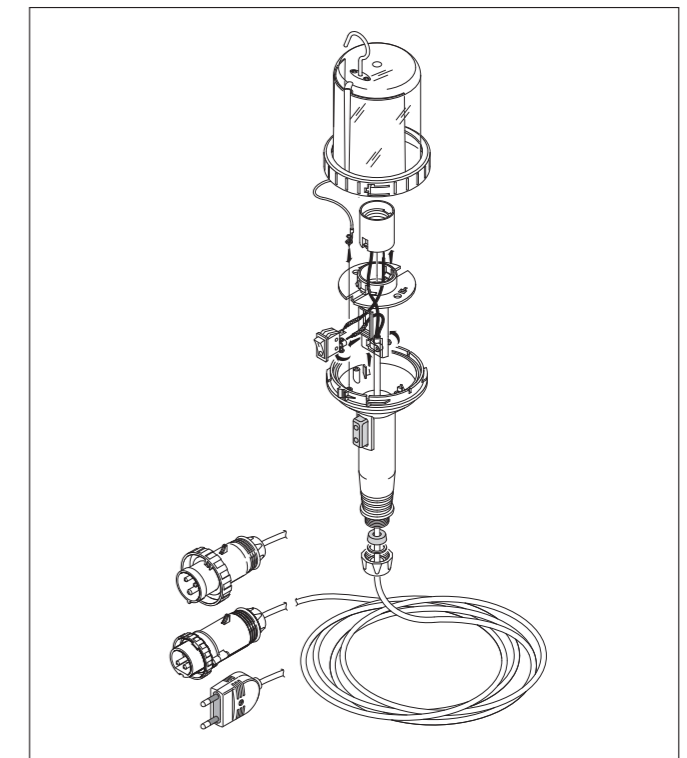
Portable electric lamps used in **wet or very damp environments or within or in contact with large metal masses**, in addition to meeting the above requirements must be fed by a power supply of not more than 25 V to earth and fitted with a glass casing.

If power is supplied to these lamps through a transformer, its primary and secondary windings must be separate and isolated from each other.

## HALE SERIES - IP20



## HALE SERIES - IP65



Plugs and sockets



Adaptors



Domestic cable reels



Lampholders



TV & Phone



Plates and devices



Enclosures



Plugs and sockets



Interlocked sockets



Switchgear



Light fittings



Distribution assemblies



Adaptors



Industrial cable reels



Accessories



Wire connectors



Conduits



Trunking



Trunking

## PORTABLE LIGHTING - 60 W

Reference standard: EN 60598-1 and EN 60598-2-8 (CEI 34-34)



### HALE SERIES - IP20

#### WITH PROTECTIVE GUARD AND ZINC-PLATED STEEL REFLECTOR

- Thermoplastic grip, insulated without hygroscopicity and with a turning system that ensures that if the lamp is leaning against a surface it doesn't shine directly onto the surface, thereby avoiding dangerous over-heating.
- Conical cable sleeve
- Screw-down cable clamp
- Pivoting hook
- Rocker switch and screw terminal for changing the cable
- Protective guard that can be opened to change the bulb
- H05VV-F PVC Cable
- For bulbs up to 60W (incandescent)

#### STANDARD Version

- Colour: orange

CABLE	PLUG	SUPPLY	LAMPHOLDER	PACK QTY.	CATALOGUE NUMBER
Without cable and plug	-	-	E 27	1/24	<b>770.200</b>
5m 2x0,75mm <sup>2</sup>	Italian	2P - 10A - 250V	E 27	1/24	<b>770.207</b>
10m 2x0,75mm <sup>2</sup>	Italian	2P - 10A - 250V	E 27	1/18	<b>770.208</b>



#### HEAVY DUTY Version

- Colour: black

CABLE	PLUG	SUPPLY	LAMPHOLDER	PACK QTY.	CATALOGUE NUMBER
Without cable and plug	-	-	E 27	1/24	<b>770.250</b>



### HALE SERIES - IP20

#### WITH PROTECTIVE GUARD AND ZINC-PLATED STEEL REFLECTOR

- Thermoplastic grip, insulated without hygroscopicity and with a turning system that ensures that if the lamp is leaning against a surface it doesn't shine directly onto the surface, thereby avoiding dangerous over-heating.
- Conical cable sleeve
- Screw-down cable clamp
- Pivoting hook
- Rocker switch and screw terminal for changing the cable
- Protective guard that can be opened to change the bulb
- H05VV-F PVC Cable
- For bulbs up to 60W (incandescent)

#### IP20<sup>(1)</sup> Version

CABLE	PLUG	SUPPLY	LAMPHOLDER	PACK QTY.	CATALOGUE NUMBER
5m 2 x 1mm <sup>2</sup>	CEI 23-16	2P - 10A - 250V	E 27	1/6	<b>770.407</b>
10m 2 x 1mm <sup>2</sup>	CEI 23-16	2P - 10A - 250V	E 27	1/6	<b>770.408</b>

#### IP65 Version

CABLE	PLUG	SUPPLY	LAMPHOLDER	PACK QTY.	CATALOGUE NUMBER
Without cable and plug			E 27	1/6	<b>770.400</b>
5m 2 x 1mm <sup>2</sup>	IEC309	2P - 16A - 24V <sup>(2)</sup>	E 27	1/6	<b>770.405</b>
10m 2 x 1mm <sup>2</sup>	IEC309	2P - 16A - 24V <sup>(2)</sup>	E 27	1/6	<b>770.406</b>
5m 2 x 1mm <sup>2</sup>	IEC309 <sup>(3)</sup>	2P+E - 16A - 250V	E 27	1/6	<b>770.409</b>
10m 2 x 1mm <sup>2</sup>	IEC309 <sup>(3)</sup>	2P+E - 16A - 250V	E 27	1/6	<b>770.410</b>

<sup>(3)</sup> EUREKA Series plug (the earth pole is not connected)



<sup>(1)</sup> The degree of protection IP20 is due to the plug for domestic use, while the apparatus is IP65; for example, if plugged into a socket in the garage the lamp can be used in the garden.

<sup>(2)</sup> For safety supply with transformer unit 24V- (SELV) see:

- ADVANCE 2 Series interlocked-switch socket outlets - MEGA Series distribution assemblies  
 - MASTERBOX 3 Series distribution assemblies - MASTERBOX 5 Series distribution assemblies  
 - DOMINO 400 Series distribution assemblies - BLOCK 4 Series distribution assemblies  
 - ROLLER 450 Series cable reels