

Approvals and Standards (UL/CSA)

ø16 to ø8mm series Miniature Switches & Pilot Lights

Name	Model	Rating	UL/CSA registered model	UL	CSA
ø16 LB series	LB1B, LB2B LB3B, LB4B LB1L, LB2L LB3L, LB4L LB1S, LB2S LB3S LB1K, LB2K LB3K	(Gold-clad contacts) 125V AC, 0.1A (Res.) 30V DC, 0.1A (Res.) (Silver contacts) 125V AC, 3A (Res.) 250V AC, 2A (Res.) 30V DC, 2A (Res.) 125V DC, 0.4A (Res.) 125V AC, 2A (Gen.) 250V AC, 1.5A (Gen.) 30V DC, 1A (Gen.) 125V DC, 0.2A (Gen.) <Illuminated unit ratings> LED illuminated: 5, 6, 12, 24V AC/DC	(non-illuminated gold-clad contacts) LB-T1, LB-T1V LB-T2, LB-T2V (illuminated gold-clad contacts) LB-T10, LB-T10V LB-T20, LB-T20V (non-illuminated silver contacts) LB-T5, LB-T5V LB-T6, LB-T6V (illuminated silver contacts) LB-T50, LB-T50V LB-T60, LB-T60V	Recognition E55996 Applicable standard UL508	LR 21451 Applicable standard CSA C22.2 No. 14
	LB1P, LB2P LB3P, LB4P	<Illuminated unit ratings> LED illuminated: 5, 6, 12, 24V AC/DC	LB-T00		
ø16 A6 series	AL6, AB6, AS6 AL6-P	250V AC, 0.5A (Res.) 250V AC, 0.5 A (Gen.)		Recognition E55996 Applicable standard UL 508	LR92374 Applicable standard CSA C22.2 No.14
ø12 A2 series	AL2, AB2 AL2-P	125V AC, 1A (Res.) 125V AC, 0.75A (Gen.) 110V DC, 0.2A (Res.) 110V DC, 0.1A (Gen.) 30V DC, 1A (Res.) 30V DC, 0.7A (Gen.) <Illuminated unit ratings> AL6, AL6-P: 5V DC, 6, 12, 24V AC/DC AL2, AL2-P: 5, 6, 12, 24V DC			
ø10 A1 series	AL1, AB1 AL1-P	125V AC, 1 A(Res.) 125V AC, 0.7A (Gen.)			
ø8 A8 series	AL8, AB8 AL8-P	110V DC, 0.2A (Res.) 110V DC, 0.1A (Gen.) 30V DC, 1A (Res.) 30V DC, 0.7A (Gen.) <Illuminated unit ratings> 5, 6, 12, 24V DC			
ø16 H6 series	HA1B, HA2B HA3B, HA4B HA1S, HA3S HA1K, HA3K HA1R HA1L, HA2L HA3L, HA4L HA1F, HA3F	(Gold-clad contacts) 125V AC, 0.1A (Res.) 30V DC, 0.1A (Res.) (silver contact) 125V AC, 3A (Res.) 250V AC, 2A (Res.) 30V DC, 2A (Res.) 125V DC, 0.4A (Res.) 125V AC, 2A (Gen.) 250V AC, 1.5A (Gen.) 30V DC, 1A (Gen.) 125V DC, 0.2A (Gen.) <Illuminated unit ratings> LED illuminated: 5V DC, 6, 12, 24V AC/DC	(non-illuminated gold-clad contacts) HA-C1, HA-C1V HA-C2, HA-C2V (illuminated gold-clad contacts) HA-C10, HA-C10V HA-C20, HA-C20V (non-illuminated silver contacts) HA-C5, HA-C5V HA-C6, HA-C6V (illuminated silver contacts) HA-C50, HA-C50V HA-C60, HA-C60V	Recognition E55996 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	w/Removable contact block HA1P, HA2P HA3P, HA4P	<Illuminated unit ratings> LED illuminated: 5V DC, 6, 12, 24V AC/DC	(Pilot light) HA-C00		
	Unibody HA1P, HA2P HA3P, HA4P		HA-P		

Approvals and Standards (UL/CSA)

LED Illuminated Miniature Pilot Lights

Name	Model	Rating	UL	CSA
AP series	(Pilot Light) AP6M AP2M AP1M AP8M (Transformer) AP6 AP2	AP8M/AP1M: 5, 12, 24V DC/12, 24V AC AP2M/AP6M: 6, 12, 24V DC AP6/AP2 Primary: 100/110, 115/120, 200/220, 230/240V AC, 50/60Hz Secondary: 6V 33mA	Recognition E68961 Applicable standard: UL 508	LR92374 Applicable standard: CSA C22.2 No.14

MA series Illuminated Pushbuttons/Pilot Lights/Pushbuttons

Name	Model	Rating	UL	CSA
MA series (LED illuminated)	MA2L/MA2B MA3L/MA3B MA8L/MA8B MA2P MA3P MA8P	(gold-clad contacts) 125V AC, 0.1 A (Res.) 30V DC, 0.1 A (Res.) (silver contacts) 125V AC, 3 A (Res.)/250V AC, 2 A (Res.) 30V DC, 2 A (Res.)/125V DC, 0.4 A (Res.) 125V AC, 2 A (Gen.)/250V AC, 1.5 A (Gen.) 30V DC, 1 A (Gen.)/125V DC, 0.2 A (Gen.) <Illuminated unit ratings> 5, 6, 12, 24, 28V AC/DC LED	Recognition E55996 Applicable standard: UL508	c-UL Recognition E55996 Applicable standard: CSA C22.2 No.14

ø22mm CW series Flush Silhouette Switches

Name	Model	Rating	UL	CSA
CW series	CW1B, CW4B CW1L, CW4L CW1S, CW4S, CW1K, CW4K CW1P, CW4P	A300 6V, 12V, 24V AC/DC, 100/120V, 200/220V, 230/240V AC	Listing E68961 Applicable standard: UL508	c-UL Listing Applicable standard: CSA C22.2: No.14

Note: For details on A600, see the table below.

ø22mm HW series Switches & Pilot Lights

Name	Model	Rating	UL/CSA registered mark	UL	CSA
HW series	HW1B-V3/HW1B-V4/HW1B-V5 HW1B-X4 HW1B-Y2 HW1B/HW2B/HW3B HW1P/HW2P HW1L/HW2L/HW3L HW1S HW1K HW1F HW1R HW1M/HW1M-L	<contact ratings> A600 (Note) <illuminated unit operating voltage> Full voltage: 6, 12, 24V AC/DC Transformer: 100 to 480V AC	(contact block) HW-G10, G10R HW-G01, G01R (transformer) For illuminated switch HW-L (100 to 480 V) HW-T (100 to 240 V) For pilot light HW-M (100 to 240 V) HW-R (100 to 480 V) (direct adapter) HW-GA1 (Joint box) HW-CB1, HW-CB2, HW-CBL	UL Listing E68961 Applicable standard: UL508	LR92374 Applicable standard CSA C22.2 No.14
	HW1E-BV4 HW1E-LV4	<contact rating> 250V AC, 3A 125V DC, 0.3A <illuminated unit operating voltage> (LED/incandescent illuminated) Full voltage: 6, 12, 24V AC/DC		UL Listing E55996 Applicable standard: UL508	c-UL Listing E55996 Applicable standard: CSA C22.2 No.14

Note: For details on A600, see the table below.

ø22mm YW series Switches & Pilot Lights

Name	Model	Rating	Remarks	UL	CSA
YW series	YW1B, YW4B, YW1B-V YW1L, YW4L, YW1L-V YW1S, YW4S YW1K, YW4K YW1P	A600 (Note) 6, 12, 24, 100/120, 115/120, 220, 200/240, 230/240V AC/DC		UL Listing E68961 Applicable standard UL508	c-UL Listing E68961 CSA C22.2 No. 14

Note: For details on A600, see the table below.

Approvals and Standards (UL/CSA)

Typical UL/CSA Contact Ratings

Contact Rating Code	Thermal Continuous Test	Max. Current Amperes (b)								Max.	
		120 Volt		240 Volt		480 Volt		600 Volt		Volt-amperes	
Dsg (a)	Current, Amperes	Make	Break	Make	Break	Make	Break	Make	Break	Make	Break
A600	10	60	6.00	30	3.00	15	1.50	12	1.20	7200	720
A300	10	60	6.00	30	3.00	—		—		7200	720

Rating Codes for AC Control-circuit Contacts at 50 and 60 Hz

Contact Rating Code Designation	Thermal Continuous Test Current, Amperes	Maximum Make or Break Current, Amperes			Maximum Make or Break Volt-amperes at 300 Volts or Less
		125 Volt	250 Volt	301 to 600 Volt	
P600	5.0	1.1	0.55	0.20	138
Q600	2.5	0.55	0.27	0.10	69

Rating Codes for DC Control-circuit Contacts

ø22mm TW series Switches & Pilot Lights

Name	Model	Rating	Remarks	UL	CSA
Pushbuttons	ABW/AOW ABFW/AOFW ABGW ABQW/AOQW	<contact ratings> A600 (Note) <illuminated unit operating voltage> Full voltage: 6, 12, 24 V		Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	AVW AJW AXW/AXHW AYW	AC/DC Transformer: 100 to 480V AC			
LED Illuminated Unit	APW UPQW	<contact ratings> A600 (Note) <illuminated unit operating voltage> Full voltage: 6, 12, 24V AC/DC Transformer: 100 to 480V AC	Except for 110V DC (DC-DC converter)	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	ALW/AOLW ALFW/AOLFW ALQW/AOLQW				
	AVLW AYLW ASLW				
Incandescent Illuminated Unit	APW UPOW		Half size 100 to 240V AC: ø22mm series only	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 Illuminated pushbutton No.14
	ALW/AOLW ALFW/AOLFW ALQW/AOLQW				
	AVLW AYLW ASLW				
Selector Switch	ASW ASW□L ASW□M ASW□K	<contact ratings> A600 (Note)		Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14

Approvals and Standards (UL/CSA)

ø22mm LW series Switches & Pilot Lights

Name	Model	Rating	Remarks	UL	CSA
LW series ø22mm Switches & Pilot Lights	LW1B/LW2B/LW3B LW1S/LW3S LW1K/LW3K LW6B/LW7B/LW6MB LW6GB/LW7GB LW6S/LW7S/LW6MS LW6K/LW6MK LW6J/LW6MJ	(gold-clad contacts) 125V AC, 0.1 A (Res.) 30V DC, 0.1 A (Res.) <illuminated unit ratings> (LED illuminated) 6, 12, 24V AC/DC	UL/CSA registered model LW-C1, -C1V, -C1M LW-C2, -C2V, -C2M LW-C3, -C3V, -C3M	Recognition E55996 Applicable standard UL508	LR21451 Applicable standard CSA C22.2 No.14
	LW1L/LW2L/LW3L LW1F/LW3F LW6L/LW7L/LW6ML LW6GL/LW7GL LW6F/LW6MF/LW7F		UL/CSA registered model LW-C10, -C10V, -C10M LW-C20, -C20V, -C20M LW-C30, -C30V, -C30M		
	LW1B/LW2B/LW3B LW1S/LW3S LW1K/LW3K LW6B/LW7B/LW6MB LW6GB/LW7GB LW6S/LW7S/LW6MS LW6K/LW6MK LW6J/LW6MJ	(silver contacts) 125V AC, 3 A (Res.) 250V AC, 2 A (Res.) 30V DC, 2 A (Res.) 125V DC, 0.4 A (Res.) 125V AC, 2 A (Gen.) 250V AC, 1.5 A (Gen.) 30V DC, 1 A (Gen.)	UL/CSA registered model LW-C5, -C5V, -C5M LW-C6, -C6V, -C6M LW-C7, -C7V, -C7M		
	LW1L/LW2L/LW3L LW1F/LW3F LW6L/LW7L/LW6ML LW6GL/LW7GL LW6F/LW6MF/LW7F	125V DC, 0.2 A (Gen.) <illuminated unit operating voltage> (LED illuminated) 6, 12, 24V AC/DC	UL/CSA registered model LW-C50, -C50V, -C50M LW-C60, -C60V, -C60M LW-C70, -C70V, -C70M		
	Removable contact block LW1P/LW2P/LW3P LW6P/LW6MP/LW7P	<illuminated unit operating voltage> (LED illuminated) 6, 12, 24V AC/DC	UL/CSA registered model LW-C00, -C00V		
	Unibody LW1P/LW2P/LW3P LW6P/LW6MP/LW7P		UL/CSA registered model LW-P		

ø25mm TWS series Switches & Pilot Lights

Name	Model	Ratings	UL	CSA
Pushbutton	ABS, ABGS, ABFS, UBQS, AOS, AOGS, AOFS, UBQS UOQS, AJS, AYS	<contact ratings> A600 (Note) <illuminated unit ratings> (LED illuminated)	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
Pushlock turn reset	AVS	Full voltage: 6, 12, 24V AC/DC		
Pilot Light	APS, UPQS	Transformer: 100V to 480V AC (Incandescent illuminated)		
Illuminated Pushbutton	Illuminated pushbutton ALS ALGS, ALFS, ULQS AOLS, AOLGS, AOLFS UOLQS, AVLS	Full voltage: 6, 12, 24V AC/DC Transformer: 100V to 480V AC		
Selector Switch	ASS, ASS□-L	<contact ratings> A600/P600 (Note) (contact block)		
Illuminated Selector Switch	ASLS	BS010E, BS001E, BS010SE, BS001SE		
Key Selector Switch	ASS□K			
Twin Maintained	Twin Maintained ABBS			

Approvals and Standards (UL/CSA)

ø30mm series Switches & Pilot Lights

Name	Model	Ratings	UL	CSA
Pushbutton	ABN/AON ABN□F/AON□F ABN□G/AON□G UBQN/UOQN	<contact ratings> A600/P600 (Note)	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	AVN/AJN/ABN ABN□K/ATN ABN8P/UWQN1			
	Twin Maintained UWQN ABBN			
LED Illuminated Unit	APN/APNE/UPQN/ UPQNE	<illuminated unit ratings> (LED illuminated) Full voltage: 6, 12, 24V AC/DC Transformer: 100 to 480V AC	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	(Base BA9S) (Base E12) ALN2,3 ALNE2,3 AOLN2,3 AOLNE2,3 ALGN2 ALGNE2 AOLGN2 AOLGNE2 ALFN2 ALFNE2 AOLFN2 AOLFNE2 AVLN3 AVLNE3 AJLN3 AJLNE3 ASLN	<contact ratings> A600/P600 (Note) <illuminated unit ratings> (LED illuminated) Full voltage: 6 V, 12, 24V AC/DC Transformer: 100 to 480V AC	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
Incandescent Illuminated Unit	APN, APNE, UPQN, UPQNE APN	<illuminated unit ratings> (Incandescent illuminated) Full voltage: 6, 12, 24V AC/DC Transformer: 100 to 480V AC	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	ALN/AOLN ALN□G/AOLN□G ALNE8G8/AOLNE8G8 ALN□F/AOLN□F ALNE8F8/AOLNE8F8 ULQN/UOLQN ALN□L/AVLN/AJLN ASLN	<contact ratings> A600/P600 (Note) <illuminated unit ratings> (Incandescent illuminated) Full voltage: 6, 12, 24V AC/DC Transformer: 100 to 480V AC		
	Selector Switch ASN/ASN□L ASN□K/ASTN□L	<contact ratings> A600/P600 (Note 2)		
Selector Pushbutton	ABN/ABN□L		Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
Mono-lever Switch	ARN/ARNS/ARNL			
Cam Switch	Cam Switch ACSNO/ACS NK UCSQO/UCSQM			
ø30mm HN series Pushlock turn reset (unibody)	HN1E-BV4 HN1E-LV4	<contact ratings> 250V AC, 3A/125V DC, 0.3A <illuminated unit operating voltage> <LED lamp/Incandescent illuminated> Full voltage: 6, 12, 24V AC/DC	Listing E68961 Applicable standard UL 508	LR55996 Applicable standard CSA C22.2 No.14

ø30mm series Diecast Zinc Switches & Pilot Lights

Name	Model	Ratings	UL	CSA
Pushbutton	ABD/AOD ABFD/AOFD ABGD/AOGD	<contact ratings> A600/P600 (Note)	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	AVD/AJD ABD8P/AZD AYD			
LED Illuminated Unit	APD APDE	<illuminated unit ratings> (LED illuminated) Full voltage: 6, 12, 24V AC/DC Transformer: 100 to 480V AC	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	(Base BA9S) (Base E12) ALD2,3 ALDE2, 3 AOLD2,3 AOLDE2, 3 ALGD2 ALGDE2 AOLGD2 AOLGDE2 ALFD2 ALFDE2 AOLFD2 AOLFDE2 AVLD3 AVLDE3 AJLD3 AJLDE3 ASLD	<contact ratings> A600/P600 (Note) <illuminated unit ratings> (LED illuminated) Full voltage: 6 V, 12, 24V AC/DC Transformer: 100 to 480V AC	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
Incandescent Illuminated Unit	APD	<illuminated unit ratings> (Incandescent illuminated) Full voltage: 6, 12, 24V AC/DC Transformer: 100 V to 480V AC	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
	ALD/AOLD ALGD/AOLGD	<contact ratings>A600/P600 (Note) <illuminated unit ratings> (Incandescent illuminated) Full voltage: 6, 12, 24V AC/DC Transformer: 100 V to 480V AC		
	AJLD AVLD ASLD			
Selector Switch	ASD	<contact ratings>A600/P600 (Note 2)	Listing E68961 Applicable standard UL 508	LR21451 Applicable standard CSA C22.2 No.14
Selector Pushbutton	ASBD/ASBD2L			

Approvals and Standards (UL/CSA)

FB series Plastic Enclosures

Name	Model	Ratings	UL	CSA
FB series	FB1W-111Y FB1W-111Z FB2W-211Z FB2W-312Z FB3W-311Z FB3W-413Z FB3W-512Z	NEMA Type 4X indoor use only	Listing E68961 Applicable standard UL 508 UL 50	c-UL Listing E68961 Applicable standard CSA C22.2 No.14 CSA C22.2 No.94

MC series Illuminated Pushbuttons & Pilot Lights

Name	Model	Ratings	UL	CSA
MC series	MC2 MC3	<contact ratings> (silver contacts) 125V AC, 3A (Res.) 250V AC, 2A (Res.) 30V DC, 2A (Res.) 125V DC, 0.4A (Gen.) 125V AC, 2A (Gen.) 250V AC, 1.5A (Gen.) 30V DC, 1A (Gen.) 125V DC, 0.2A (Gen.) (gold-colad silver contacts) 125V AC, 0.1A (Res.) 30V DC, 0.1A (Res.) <illuminated unit ratings> (LED illuminated) 5V DC 6, 12, 24V AC/DC (incandescent illuminated) 5, 12, 24V AC/DC	Recognition E55996 Applicable standard UL 508	c-UL Recognition E55996 Applicable standard CSA C22.2 No.14

SLDN series Display Lights

Name	Model	Ratings	UL	CSA
SLDN	SLD30N SLD44N SLD72N SLD48N	(operating voltage) (full voltage) 6, 12, 24V AC/DC (transformer) 100 to 240V AC	Listing E68961 Applicable standard UL 508	c-UL Listing E68961 Applicable standard CSA C22.2 No.14

Approvals and Standards (UL/CSA)

Interlock Switches

Name	Model	Ratings	UL	CSA
Aluminum Diecast	HS1B	Main circuit/monitor circuit A300 (Note), 250V AC 3A (general use) 250V AC 3A (resistive) 30V DC 3A	Listing E68961 Applicable standard UL508	c-UL Listing E68961 Applicable standard CSA C22.2 No.14
Aluminum Diecast Solenoid	HS1C			
Plastic Solenoid	HS1E			
Plastic	HS2B			
Plastic Miniature	HS5B	250V AC, 1.5A Pilot duty (C300, Q300)		
Plastic Miniature	HS6B			
Plastic Miniature Solenoid	HS5E HS5E-K	Main circuit/monitor circuit 125V AC, 1.5 A Pilot duty 125V DC, 0.22 A Pilot duty	Listing E68961 Applicable standard UL508	c-UL Recognition E68961 Applicable standard CSA C22.2 No.14
Plastic Miniature Solenoid	HS6E	<Lock monitor> 125V AC, 1A Pilot duty 125V DC, 0.22A Pilot duty 30V DC, 1A Pilot duty <door monitor> (C300, Q300)	Listing E68961 Applicable standard UL508	c-UL Listing E68961 Applicable standard CSA C22.2 No.14
Plastic Solenoid	HS5D	A300 Pilot duty 250V AC, 3A (Gen.) 250V AC, 3A (Res.) 30V DC, 4A		
Plastic Solenoid	HS1L	A300 Pilot duty 250V AC, 3A (Gen.) 250V AC, 3A (Res.) 30V DC, 4A		
Plastic Solenoid	HS5L	250V AC, 0.75A Pilot duty 30V DC, 1A Pilot duty		
Non-contact Interlock Switch	HS7A	Operating voltage 24V DC Operating current (Without LED) 0.1 to 100 mA (With LED) 5 to 100 mA		

HS1/HS5 Interlock Plugs

Name	Model	Ratings	UL	CSA
Interlock Plug Unit	HS1P-1	10A, 250V ac (Res.)	Listing E68961 Applicable Standard UL 508	c-UL Listing E68961 Applicable Standard CSA C22.2 No.14
	HS1P-2	10A, 30V dc (Res.)		
	HS2P-3	Main contacts 5A, 250V ac (Res.) 5A, 30V dc (Res.)		
	HS1P-4	Main contacts 5A, 24V dc (Res.)		
Interlock Plug Unit with Door Lock	HS1C-P0	Main contacts (3-4) A300, 10A, 250V ac (Res.) Pilot duty Plug Auxiliary Contacts (1-2) A300, 3A, 250V ac (Res.) Pilot duty For disconnecting use only		
	HS1C-P4	Main contacts (3-4) A300, 10A, 250V ac (Res.) Pilot duty Plug Auxiliary Contacts (1-2) A300, 3A, 250V ac (Res.) Pilot duty For disconnecting use only		
Interlock Plug Unit	HS2P	10A, 250V ac (Res.)		

Safety Light Curtains

Name	Model	Ratings	UL	CSA
SE4D	SE4D-**	24V DC	Listing E222878 Applicable Standard UL 508 UL61496-1 UL61496-2	c-UL Listing E222878 Applicable Standard CSA C22.2 No.14 CSA C22.2 No.8

Approvals and Standards (UL/CSA)

X6/XA/XW/XN series Emergency Stop Switches

Name	Model	Color code	Ratings	UL	CSA
X6 series ø16mm Pushlock Pull/Turn Reset	AB6E-3BV AB6E-4BV		250V ac, 1.5A (Standard Duty) 250V ac, 0.75A (Standard Duty) 30V dc, 1A (Standard Duty)	Recognition E68961 Applicable standard UL508	c-UL Recognition Applicable standard CSA C22.2 No.14
ø16mm XA series Pushlock Pull/Turn Reset Includes EMO (solder terminal)	XA1E-BV3 XA1E-BV4 XA1E-LV3 XA1E-LV4	R RH	1.5A, 250V AC (pilot duty) 1A, 30V DC (pilot duty)	Recognition E68961 Applicable Standard UL 508 Recognition E305148 Applicable Standard UL508 UL991 ANSI/NFPA79 IEC60947-5-5 EN418	c-UL Recognition E68961 Applicable Standard CSA C22.2 No.14
XA series ø16mm (Unibody)	XA1E-BV3U XA1E-BV4U		1.5A/250V ac (pilot duty) 1A/30V dc (pilot duty)	Recognition E68961 Applicable Standard UL508	c-UL Recognition E68961 Applicable Standard CSA C22.2 No.14
XW series ø22mm Emergency Stop Switch Pushlock Pull/Turn Reset Includes EMO	XW1E-BV4□□MF* XW1E-BV4□□M* XW1E-BV5□□MF* XW1E-BV5□□M*	R RH	XW series ø22mm Emergency Stop Switch Pushlock Pull/Turn Reset [BC]	Listing E68961 Applicable Standard UL 508	c-UL Listing E68961 Applicable Standard CSA C22.2 No.14
	XW1E-LV4□□Q4MFR XW1E-LV4□□Q4MR XW1E-TV4□□Q4MFR XW1E-TV4□□Q4MR		1.5A, 125V AC (pilot duty) 1A, 30V DC (pilot duty)	Listing E305148 Applicable Standard UL508 UL991 ANSI/NFPA79 IEC60947-5-5 EN418	
	XW1E-BV4□□* XW1E-BV4□□V* XW1E-BV403V*-BC	R RH		Recognition E68961 Applicable Standard UL 508	
	XW1E-LV4□□Q4R XW1E-LV4□□Q4VR XW1E-TV403Q4VR-BC			Recognition E305148 (Except -BC) UL508 UL991 ANSI/NFPA79 IEC60947-5-5 EN418	
ø30mm XN series (Padlockable Pushlock Turn Reset)	XN1E-BV4□□MF* XN1E-BV4□□M* XN1E-BV4□□MF* XN1E-BV4□□M*	R, RH	1.5A/250V AC (pilot duty) 1A/30V DC (pilot duty)	Recognition E68961 Applicable Standard UL 508	c-UL Recognition E68961 Applicable Standard CSA C22.2 No.14
	XN1E-LV4□□Q4MFR XN1E-LV4□□Q4MR XN1E-TV4□□Q4MFR XN1E-TV4□□Q4MR			Listing E305148 UL508 UL991	
	XN5E-BV4□□MF* XN5E-BV4□□M*	R, RH		ANSI/NFPA79 IEC60947-5-5 EN418	
	XN5E-LV4□□MFR XN5E-LV4□□MR XN5E-TV4□□MFR XN5E-TV4□□MR XN4E-BL4□□MFRH XN4E-BL4□□MRH XN4E-LL4□□Q4MFR XN4E-LL4□□Q4MR XN4E-TL4□□Q4MFR XN4E-TL4□□Q4MR				

* Color code: R (red), RH (bright red)

Approvals and Standards (UL/CSA)

Enabling Switches

Name	Model	Ratings	UL	CSA
HE1B	HE1B-M1	250V AC, 0.75A pilot duty 125V DC, 0.22 A pilot duty	Recognition E68961 Applicable Standard UL 508	c-UL Recognition E68961 Applicable Standard CSA C22.2 No.14
HE2B	HE2B-M2	250V AC, 0.5 A pilot duty 125V DC, 0.22 A pilot duty		
HE3B	HE3B-M2	125V AC, 1A (Res.), 30V DC, 1A (Res.)		
HE5B	HE5B-M2	125V AC, 1A 30V DC, 1A (Res.)		
HE6B	HE6B-M2	3-position switch 125V AC, 0.5A (Res.), 30V DC, 1A (Res.), 30V DC, 0.7A (pilot duty) Monitor switch 250V DC, 0.75A (pilot duty), 250V AC, 0.5A (Gen.) 30V DC, 2.3A (pilot duty), 30V DC, 1A (Gen.)	Recognition E68961 Applicable Standard UL508	c-UL Recognition E68961 Applicable Standard CSA C22.2 No.14

Grip Style Three-position Enabling Switches

Name	Model	Ratings	UL	CSA
HE1G	HE1G-21SM	250V AC, 0.75A pilot duty 125V DC, 0.22 A pilot duty	Listing E68961 Applicable Standard UL 508	c-UL Listing E68961 Applicable Standard CSA C22.2 No.14
HE1G-L	HE1G-L Screw Terminal	Enabling Contact 250V AC, 0.5A pilot duty 125V DC, 0.1A pilot duty 30V DC, 0.7A pilot duty Monitor switch 250V AC, 0.75A pilot duty	Listing E68961 Applicable Standard UL508	c-UL Listing E68961 Applicable Standard CSA C22.2 No.14
HE2G	HE2G HE2G-X	Enabling Contact 250V AC, 0.5A pilot duty 125V DC, 0.1A pilot duty 30V DC, 0.7A pilot duty Monitor switch 250V AC, 0.75A pilot duty	Recognition E68961 Applicable Standard UL508	c-UL Recognition E68961 Applicable Standard CSA C22.2 No.14

Safety Relay Modules

Name	Model	Ratings		UL	CSA			
		Power voltage	Output contact ratings					
HR1S	HR1S-AF5130 HR1S-AF5130B	24V AC -15 to +10% 50/60Hz 24V DC -15 to +10%	(Safety circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 1.5A L/R=50ms	Listing E68961 Applicable Standard UL 508	LR231098 Applicable Standard CSA C22.2 No.14			
	HR1S-AT5110 HR1S-AT3410	24V AC -20 to +10% 50/60Hz 24V DC ±20%	(Safety circuit) AC15, C300 (1800VA/360VA) DC13, 24V DC 1.5A L/R=50ms (Time Delay Circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 1.5A L/R=50ms (Auxiliary circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 1.5A L/R=50ms					
	HR1S-AK311144 HR1S-AK351144	24V AC -20 to +10% 50/60Hz 24V DC ±20%	(Safety circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 1.5A L/R=50ms (Auxiliary circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 1.2A L/R=50ms					
	HR1S-ECM5131 HR1S-ECM3431	24V AC -20 to +10% 50/60Hz 24V DC ±20%	(Safety circuit) AC15, C300 (1800VA/360VA) DC13, 24V DC 1.5A L/R=50ms (Auxiliary circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 1.2A L/R=50ms					
	HR1S-AC5121	24V AC -20 to +10% 50/60Hz 24V DC ±20%	(Safety circuit) AC15, C300 (1800VA/180VA) DC13, 24V DC 2A L/R=50ms (Auxiliary circuit) Transistor output 24V/ 20mA					
	HR2S	HR2S	250V AC/30V DC				TUV SÜD NRTL Applicable Standard UL508	TUV SÜD NRTL Applicable Standard CSA C22.2 No.14

Forced Guide Relays/Relay Sockets

Name	Model	Ratings	UL	CSA
Forced Guide Relay	RF2S RF2V	NO: 277V AC, 6A (Res.)/30V DC, 6A (Res.) NC: 277V AC, 3A (Res.)/ 30V DC, 3A (Res.) coil: 5-125V DC	Recognition E55996 Applicable Standard UL60947-4-1A	LR35144 Applicable Standard CSA C22.2 No.14
Forced Guide Relay	RF1V	250V AC, 6A (Res.) 30V DC, 6A (Res.) coil: 12, 24, 48V DC	Recognition E55996 Applicable Standard UL508	253350 Applicable Standard CSA C22.2 No.14
Relay Socket	SF1V	277V AC, 6A	Recognition E62437 Applicable Standard UL508	253350 Applicable Standard CSA C22.2 No.14

Approvals and Standards (UL/CSA)

Terminal Blocks/Surface Mount Terminal Blocks

Name	Model	Part No.	Ratings	Applicable Wire (AWG)	UL	CSA
35-mm-wide DIN Rail Mount Terminal Block	BN	BN10W	600V/15A	22-16	Recognition E78117 Applicable standard UL1059	LR64803 Applicable standard CSA C22.2 No.158
		BN15MW	600V/15A	22-14		
		BN15MWT	600V/15A	22-14		
		BN15LW	600V/20A	22-14		
		BN15LWT	600V/30A	22-14		
		BN30W	600V/35A	18-10		
		BN40W	600V/50A	16-8		
		BN50W	600V/60A	16-6		
		BN75W	600V/80A	16-4		
		BN100W	600V/100A	16-2		
		BN150W	600V/150A	16-I/O		
		BN200NW	600V/200A	4/0		
		BN200BW	600V/200A	4/0		
		BN300NW	600V/310A	300 MCM		
		BN300BW	600V/310A	300 MCM		
		BN400NW	600V/350A	400 MCM		
		BN400BW	600V/350A	400 MCM		
		BN500NW	600V/500A	500 MCM		
		BN500BW	600V/500A	500 MCM		
		BN600NW	600V/600A	600 MCM		
	BN1U-16W	600V/15A	22-14			
	BN1U-20W	600V/15A	22-14			
	BN1U-40W	600V/35A	18-10			
	BNH	BNH10W	600V/15A	22-16		
		BNH15MW	600V/15A	22-14		
		BNH15MWT	600V/15A	22-14		
		BNH15LW	600V/20A	22-14		
		BNH15LWT	600V/30A	22-14		
		BNH30W	600V/35A	18-10		
		BNH40W	600V/50A	16-8		
		BNH50W	600V/60A	16-6		
	BND	BND15W	600V/10A	22-14		
		BNDH15W	600V/10A	22-14		
		BND15LW	600V/15A	22-14		
		BNDH15LW	600V/15A	22-14		
		BND15WT	600V/15A	22-14		
		BNDH15WT	600V/15A	22-14		
	BNT	BNT20W	600V/20A	18-10		
	BA	BA111T	300V/15A	22-14		
		BA211T	300V/20A	22-12		
BA311T		150V/30A	18-10			
BA411S		600V/40A	16-6			
15-mm-wide DIN Rail Mount Terminal Block	BD	BDK5-RB	300V/10A (Note)	16-20 (solid wire)		
		BD7-RB	300V/10A (Note)	16-20 (solid wire/ stranded wire)		
		BD8-R*	300V/15A (Note)	14-20 (solid wire/ stranded wire)		
		BD8S-R*				
Surface Mount Terminal Block	BTB	BTB15C□	300V/10A	22-14		
		BTB15LC□	300V/15A	22-14		
		BTB30C□	300V/30A	18-10		
		BTB50C□	600V/50A	16-6		
	BTBH	BTBH15C□	300V/10A	22-14		
		BTBH15LC□	300V/15A	22-14		
		BTBH30C□	300V/30A	18-10		
		BTBH50C□	600V/50A	16-6		
	BD	BDK5-MB□	300V/10A (Note)	16-20 (solid wire)		
		BD7-MB□	300V/10A (Note)	16-20 (solid wire/ stranded wire)		
		BD8-M*□	300V/15A (Note)	14-20 (solid wire/ stranded wire)		
		BD8S-M*□				

*: color code

Model BD-R: rail mount, Model BD-M: surface mount

Note: 250V maximum for commercial use specified by UL standard. (e.g. commercial use/office equipment, house appliance, information processing equipment such as fax machine)

- BNT products cannot be opened/closed in energized mode.
- BAF (with a fuse) UL/CSA recognized products are available.

Approvals and Standards (UL/CSA)

Terminal Blocks/Surface Mount Terminal Blocks

Name	Model	Part No.	Rated	Applicable Wire (AWG)	UL	CSA	
Witu Fuse	BNF	BNF10W	600V/10A	18-10	Recognition E78117 Applicable Standard UL1059	LR64803 Applicable Standard CSA C22.2 No.158	
		BNF10SW					
		BNF10NW	300V/10A				
		BNF10DW	24V/10A				
	BAF	BAF111SU	600V/10A				
		BAF111SNU	300V/10A				
BC series	Standard	BC1S-1.5	300V/15A	26-14	Recognition E78117 Applicable Standard UL1059	c-UL Recognition E78117 Applicable Standard CSA C22.2 No.158	
		BC1S-2.5	600V/20A	26-12			
		BC1S-4	600V/30A	20-10			
		BC1S-6	600V/50A	20-8			
		BC1S-10	600V/65A	16-6			
		BC1S-1.5T	300V/15A	26-14			
		BC1S-2.5T	600V/20A	26-12			
		BC1S-4T	600V/30A	20-10			
		BC1S-1.5Q	300V/15A	26-14			
		BC1S-2.5Q	600V/20A	26-12			
		BC1S-4Q	600V/30A	20-10			
		BC1D-1.5	300V/15A	26-14			
		BC1D-2.5	600V/20A	26-12			
		BC1D-4	600V/30A	20-10			
		Ground Terminal Block	BC1S-1.5PE	500V			26-14
			BC1S-2.5PE	800V			26-12
	BC1S-4PE		800V	20-10			
	BC1S-6PE		800V	20-8			
	BC1S-10PE		800V	16-6			
	BC1S-1.5TPE		500V	26-14			
	BC1S-2.5TPE		800V	26-12			
	BC1S-4TPE		800V	20-10			
	BC1S-1.5QPE		500V	26-14			
	BC1S-2.5QPE		800V	26-12			
	BC1S-4QPE		800V	20-10			
	BC1D-1.5PE		500V	26-14			
	BC1D-2.5PE	500V	26-12				
	BC1D-4PE	500V	20-10				

- BN-W series terminal blocks (with a fuse) that are UL/CSA recognized are available (BNF10SW and BNF10NW).
- Terminal blocks with fuse that are UL/CSA recognized are not supplied with a fuse. When using a terminal block with fuse as UL recognized/CSA certified, use UL-recognized/CSA-certified fuses.

Approvals and Standards (UL/CSA)

Sockets

Model	Part No.	Ratings	UL	CSA
DIN Rail Mount	SR2P-05B	300V/10A	Recognition E62437 Applicable standard UL508	LR84913 Applicable standard CSA C22.2 No.14
	SR2P-05C			
	SR2P-06B			
	SR3P-05B			
	SR3P-05C			
	SR3P-06B			
	SY2S-05B	300V/7A max.		
	SY2S-05C			
	SY4S-05B	300V/7A (4-pole use) 300V/10A (2-pole use)		
	SY4S-05C			
	SY4S-02B	300V/7A max.		
	SM2S-05B	300V/7A max.		
	SM2S-05C	300V/10A		
	SH1B-05B	300V/10A		
	SH1B-05C			
	SH2B-05B			
	SH2B-05C			
	SH3B-05B			
	SH3B-05C			
	SH4B-05B			
SH4B-05C				
SY4S-05D	250V/6A max.	Recognition E188846 Applicable standard UL508	c-UL Recognition E188846 Applicable standard CSA C22.2 No.14	
SY4S-05DN				
SY4S-05DF				
SM2S-05D	250V/10A max.			
SM2S-05DN				
SM2S-05DF				
SJ1S-05B	12A/250 V	Recognition E62437 Applicable standard UL508	LR84913 Applicable standard CSA C22.2 No.14	
SJ1S-07L				
SJ2S-05B	8A/250 V			
SJ2S-07L				
SU2S-11L	10A/250 V	Recognition E62437 Applicable standard UL508	LR84913 Applicable standard CSA C22.2 No.14	
SU4S-11L	6A/250 V			
	10A/250 V			
Panel Mount, PC Board Mount	SR2P-511	300V max. 10A max.	300 V max. 10 A max. Recognition E62437 Applicable standard UL508	LR84913 Applicable standard CSA C22.2 No.14
	SR3P-511			
	SR2S-51	300 V max./7 A max.		
	SR3S-61			
	SR4S-51			
	SR4S-61			
	SY4S-61	300V/7A (4-pole use) 300V/10A (2-pole use)		
	SY4S-62			
	SM2S-51	300V max./7 A max.		
	SM2S-61			
	SM2S-62	300V/10A		
	SH1B-51	300V max./10A max. (Note)		
	SH1B-62			
	SH2B-51	300V max./10A max.		
SH2B-62				
SH3B-51	300V max./10A max.			
SH3B-62				
SH4B-51				
SH4B-62				

Note: The current rating of the coil terminal for SH1B is 7A.

Approvals and Standards (UL/CSA)

BP series PC Board Terminal Blocks

Name	Model			Ratings	Applicable Wire (AWG)	UL	CSA
	BP1	BP2	BP3				
BP series	BP101S-***U BP111S-***U BP121S-***U BP122S-***U — — — BP100S-2U BP105S-***U	BP201S-***U BP211S-***U BP221S-***U BP222S-***U BP241S-***U BP251S-***U BP261S-***U — —	BP301S-***U BP311S-***U BP321S-***U BP322S-***U BP341S-***U BP351S-***U BP361S-***U — —	250V/10 A rear tab (type No. 51) type: 6A wire wrap (type No. 61) type: 6A	18-16	Recognition E78117 Applicable standard UL1059	LR64803 Applicable standard CSA C22.2 No.158
	BP101M-***U BP111M-***U BP112M-***U BP121M-***U BP125M-***U BP126M-***U — —	BP201M-***U BP211M-***U BP212M-***U BP221M-***U BP225M-***U BP226M-***U BP241M-***U BP251M-***U	BP301M-***U BP311M-***U BP312M-***U BP321M-***U BP325M-***U BP326M-***U BP341M-***U BP351M-***U	250V/15 A rear tab (type No. 51) type: 10A wire wrap (type No. 61) type: 10A	18-14		
	BP101-***U BP111-***U BP112-***U BP121-***U BP125-***U BP126-***U — — BP100-2U BP105-***U BP171-***U BP101V-***U	BP201-***U BP211-***U BP212-***U BP221-***U BP225-***U BP226-***U BP241-***U BP251-***U — — — —	BP301-***U BP311-***U BP312-***U BP321-***U BP325-***U BP326-***U BP341-***U BP351-***U — — — —	250V/15 A rear tab (type No. 51) type: 10A wire wrap (type No. 61) type: 10A	18-14		
BP101L-***U BP111L-***U BP121L-***U	BP201L-***U BP211L-***U BP221L-***U BP241L-***U	BP301L-***U BP311L-***U BP321L-***U BP341L-***U	250V/20 A wire wrap (type No. 61) type: 15A	14-12			

***: Number of poles

BL series Double-deck PC Board Terminal Blocks

Name	Model	Ratings	Applicable Wire (AWG)	UL	CSA
BL series	BL2B-T***C BL2B-S***C	250V/10 A	18-16	Recognition E78117 Applicable standard UL1059	LR64803 Applicable standard CSA C22.2 No.158
	BL2C-T***C BL2C-S***C	250V/15 A	18-14		
	BL2E-S***C	250V/20 A	18-12		

RC series Relays

Model	Part No.	Coil	Ratings				UL	CSA
			Contact					
			Voltage	Resistive	General Use	Motor Load		
RU	RU4S-*** RU4S-D-*** RU4S-D1-*** RU4S-R-*** RU4S-C-*** RU4S-CD-*** RU4S-CD1-*** RU4S-CR-*** RU4V-NF-***	6 to 240V AC 6 to 220V DC	250V AC 30V DC	— 6 A	6A —	1/10 HP	Recognition E66043 Applicable standard UL 508	LR35144 Applicable standard CSA C22.2 No.14
	RU2S-*** RU2S-D-*** RU2S-D1-*** RU2S-R-*** RU2S-C-*** RU2S-CD-*** RU2S-CD1-*** RU2S-CR-*** RU2V-NF-***		250V AC 30V DC	10 A 10 A				
	RU42S-*** RU42S-D-*** RU42S-D1-*** RU42S-R-*** RU42S-C-*** RU42S-CD-*** RU42S-CD1-*** RU42S-CR-*** RU42V-NF-***		250V AC 30V DC	3 A 3 A				

***: Voltage code

Approvals and Standards (UL/CSA)

General Purpose Relays (UL certified)

Name	Model	Ratings					UL	
		Coil	Contact					
			Voltage	Resistive	General Use	Motor Load		
RR	RR2P	6 to 240V AC	240V AC	10 A	7 A	1/3 HP	Recognition E66043 Applicable standard UL 508	
	RR3P	6 to 110V DC	120V AC 30V DC	10 A 10 A	7.5 A 7 A	1/4 HP —		
RH	RH1B	6 to 120V AC	240V AC	10 A	7 A	1/3 HP		
	RH1V2	6 to 110V DC	120V AC 30V DC	—	—	1/6 HP —		
	RH2B	6 to 240V AC	240V AC	10 A	7 A	1/3 HP		
	RH2V2	6 to 110V DC	120V AC 30V DC	—	—	1/6 HP —		
RH	RH3B	6 to 240V AC	240V AC	7.5 A	6.5 A	1/3 HP		Recognition E55996 Applicable standard UL 508
	RH3V2	6 to 110V DC	120V AC 30V DC	10 A 10 A	7.5 A —	1/6 HP —		
RH	RH4B	6 to 240V AC	240V AC	7.5 A	5 A	—		
	RH4V2	6 to 110V DC	120V AC 28V DC	10 A 10 A	7.5 A —	— —		
RM	RM2S	6 to 240V AC	240V AC	5 A	2 A	—	Recognition E55996 Applicable standard UL 508	
	RM2V	6 to 110V DC	120V AC 100V DC 30V DC	— 0.4 A 5 A	2.5 A — —	— — —		
RY	RY2S	6 to 240V AC 6 to 110V DC	240V AC	3 A	0.8 A	—		
			120V AC 100V DC 30V DC	— 0.2 A 3 A	1.5 A 0.2 A 3 A	— — —		
	RY4S	6 to 240V AC 6 to 110V DC	240V AC	5 A	5 A	—		
			100V DC 30V DC	0.2 A 5 A	0.2 A 5 A	— —		
	RY22S	6 to 120V AC 6 to 110V DC	240V AC	0.8 A	0.4 A	—		
			120V AC 30V DC	1 A 1 A	0.5 A 0.5 A	— —		
	RY42S	6 to 240V AC 6 to 110V DC	240V AC	0.8 A	0.4 A	—		
			120V AC 30V DC	1 A 1 A	0.5 A 0.5 A	— —		
RJ	RJ1S	5-110V DC	250V AC	12A (NO)	—	—	Recognition E55996 Applicable Standard UL 508	
	RJ1V	12-240V AC	30V DC	6A (NC) 12A (NO) 6A (NC)	— — —	— — —		
	RJ1V-CH	5-110V DC	250V AC	16A (NO)	—	—		
	RJ1V-AH	12-240V AC	30V DC	8A (NC) 16A (NO) 8A (NC)	— — —	— — —		
RJ2S	RJ2V	5-110V DC 12-240V AC	250V AC 30V DC	8A (NO)	—	—		
				4A (NC) 8A (NO) 4A (NC)	— — —	— — —		
RJ22S	RJ22V	5-110V DC 12-240V AC	250V AC 30V DC	— 1A	1A —	— —		

Approvals and Standards (UL/CSA)

General Purpose Relays (CSA certified)

Name	Model	Ratings					CSA
		Coil	Contact				
			Voltage	Resistive	General Use	Motor Load	
RR	RR3B RR2P RR3P	240V AC max. 110V DC max.	240V AC 120V AC 110V DC 30V DC	10A 10A 10A	7A 7.5A 0.5A 7.5A	— — — —	LR35144 Applicable standard CSA C22.2 No.14
RH	RH1B RH1V2	120V AC max. 110V DC max.	240V AC 120V AC 30V DC	10A 10A 10A	7A 7.5A 7A	1/3 HP 1/6 HP —	
	RH2B RH2V2	240V AC max. 110V DC max.	240V AC 120V AC 30V DC	10A 10A 10A	7A 7.5A 7.5A	1/3 HP 1/6 HP —	
	RH3B RH3V2	6 to 240V AC 6 to 110V DC	240V AC 120V AC 30V DC	— 10A 10A	7A — —	1/3 HP 1/6 HP —	
	RH4B RH4V2	240V AC max. 110V DC max.	240V AC 120V AC 30V DC	7.5A 10A 10A	5A 7.5A —	— — —	
RM	RM2S RM2V	240V AC max. 110V DC max.	240V AC 120V AC 100V DC 30V DC	5A 5A — 5A	2A 2.5A 0.4A 2.5A	— — — —	
	RY	RY2S RY2V	120V AC max. 110V DC max.	240V AC	3A	0.8A	
120V AC				3A	1.5A	—	
100V DC		—	0.2A	—			
30V DC		3A	1.5A	—			
RY4S RY4V	240V AC max. 110V DC max.	240V AC	—	5A	—		
		100V AC	—	0.2A	—		
30V DC	Same Pol.	Same Pol.	—				
RY22S RY22V	6 to 120V AC 6 to 110V DC	240V AC 120V AC 30V DC	— — —	— — —	— — —		
RY42S RY42V	6 to 240V AC 6 to 110V DC	240V AC 120V AC 30V DC	0.8A 1A 1A	0.4A 0.5A —	— — —		
RJ	RJ1S RJ1V	5 to 110V DC 12 to 240V AC	250V AC	12A (NO) 12A (NC)	7.5A (NO) 7.5A (NC)	— —	
			30V DC	12A (NO) 6A (NC)	6A (NO) 3A (NC)	— —	
	RJ1V-CH RJ1V-AH	5 to 110V DC 12 to 240V AC	250V AC	16A (NO) 16A (NC)	8A (NO) 8A (NC)	— —	
			30V DC	16A (NO) 8A (NC)	8A (NO) 4A (NC)	— —	
RJ2S RJ2V	5 to 110V DC 12 to 240V AC	250V AC	8A (NO) 8A (NC)	4A (NO) 4A (NC)	— —		
		30V DC	8A (NO) 4A (NC)	4A (NO) 2A (NC)	— —		
RJ22S RJ22V	5 to 110V DC 12 to 240V AC	250V AC 30V DC	— 1A	1A —	— —		

PC Board Relays (UL certified)

Name	Model	Ratings					UL
		Coil	Contact				
			Voltage	Resistive	General Use	Motor Load	
RV3T	RV3T-1G RV3T-2G	5, 12, 24V DC	240V AC 120V AC 120V DC 30V DC	5A — 0.5A 5A	— 1A (pilot duty) 0.2A (pilot duty) 2A (pilot duty)	— — — —	Recognition E68961 Applicable Standard CSA C22.2 No. 14

PC Board Relays (CSA certified)

Name	Model	Ratings				UL
		Coil	Contact			
			Voltage	Resistive	General Use	
RV3T	RV3T-1G RV3T-2G	5, 12, 24V DC	240V AC 120V AC 120V DC 30V DC	5A — 0.5 A 5A	1A (pilot duty) (10A inrush) 0.2A (15 ms) 2A (15 ms)	LR20479 Applicable standard CSA C22.2 No.14

Approvals and Standards (UL/CSA)

GT3 Multi-function Timers (Analog Setting)

Model	Part No.	Ratings		UL	CSA
		Operating Voltage	Output		
GT3A-1	GT3A-1AF20	100 to 240V AC	(Res.) 240VAC, 3A 120VAC, 5A 30V DC, 5A	UL Listing E55996 Applicable standard UL 508	c-UL Listing E55996 Applicable standard CSA C22.2 No.14
GT3A-2	GT3A-2AF20 GT3A-2D12 GT3A-2AD24	100 to 240V AC 12V DC 24V AC/DC			
GT3A-3	GT3A-3AF20 GT3A-3D12 GT3A-3AD24	100 to 240V AC 12V DC 24V AC/DC			
GT3A-4	GT3A-4AF20 GT3A-4D12 GT3A-4AD24	100 to 240V AC 12V DC 24V AC/DC			
GT3A-5	GT3A-5AF20 GT3A-5AD24	100 to 240V AC 24V AC/DC			
GT3A-6	GT3A-6AF20 GT3A-6AD24	100 to 240V AC 24V AC/DC			
GT3F-1	GT3F-1AF20 GT3F-2AD24	100 to 240V AC 24V AC/DC	(Res.) 250VAC, 5A 30V DC, 5A	Recognition E55996 Applicable standard UL 508	LR66809 Applicable standard CSA C22.2 No.14
GT3F-2	GT3F-2AF20 GT3F-2AD24	100 to 240V AC 24V AC/DC	(Res.) 250VAC, 3A 30V DC, 3A		
100 to 240V AC	100 to 240V AC	100 to 240V AC	(Res.) 250VAC, 5A 30V DC, 5A		
100 to 240V AC	100 to 240V AC	100 to 240V AC			
GT3W	GT3W-A11AF20 GT3W-A11AD24 GT3W-A16AF20 GT3W-A16AD24 GT3W-A61AF20 GT3W-A61AD24 GT3W-A66AF20 GT3W-A66AD24	100 to 240V AC 24V AC/DC 100 to 240V AC 24V AC/DC 100 to 240V AC 24V AC/DC 100 to 240V AC 24V AC/DC	(Res.) 240VAC, 3A 120VAC/30V DC, 5A 240VAC, 1/8 HP		

GT5Y Miniature Timers

Model	Part No.	Ratings		UL	CSA
		Operating Voltage	Output		
GT5Y	GT5Y-2SN1A100 GT5Y-2SN3A100 GT5Y-2SN6A100	100 to 120V AC	(Res.) 240V AC, 5 A 30V DC, 5 A	Listing E55996 Applicable standard UL 508	c-UL Listing E55996 Applicable standard CSA C22.2 No.14
	GT5Y-2SN1A200 GT5Y-2SN3A200 GT5Y-2SN6A200	200 to 240V AC			
	GT5Y-2SN1D12 GT5Y-2SN3D12 GT5Y-2SN6D12	12V DC			
	GT5Y-2SN1D24 GT5Y-2SN3D24 GT5Y-2SN6D24	24V DC			
	GT5Y-4SN1A100 GT5Y-4SN3A100 GT5Y-4SN6A100	100 to 120V AC	(Res.) 240V AC, 3 A 30V DC, 3 A		
	GT5Y-4SN1A200 GT5Y-4SN3A200 GT5Y-4SN6A200	200 to 240V AC			
	GT5Y-4SN3D12 GT5Y-4SN1D24 GT5Y-4SN3D24 GT5Y-4SN6D24	12V DC 24V DC			
	GT5Y-2SV1A100 GT5Y-2SV1D12 GT5Y-2SV1D24	100 to 120V AC 12V DC 24V DC			
	GT5Y-4SV1A100 GT5Y-4SV1D24	100 to 120V AC 24V DC	(Res.) 240V AC, 3 A 30V DC, 3 A		
	GT5Y-2SF1A100	100 to 120V AC	(Res.) 240V AC, 5 A 30V DC, 5 A		
	GT5Y-4SF1A200 GT5Y-4SF1D24	200 to 240V AC 24V DC	(Res.) 240V AC, 3 A 30V DC, 3 A		

Approvals and Standards (UL/CSA)

GT5P Miniature Timers

Model	Part No.	Ratings		UL	CSA
		Operating Voltage	Output		
GT5P	GT5P-N3SA100 GT5P-N10SA100 GT5P-N30SA100 GT5P-N60SA100 GT5P-N3MA100 GT5P-N6MA100 GT5P-N10MA100	100 to 120V AC	(Res.) 30V DC 120V AC 5 A 240V AC3 A	Recognition E55996 Applicable standard UL 508	LR66809 Applicable standard CSA C22.2 No.14
	GT5P-N1SA200 GT5P-N6SA200 GT5P-N10SA200 GT5P-N30SA200 GT5P-N60SA200 GT5P-N3MA200 GT5P-N6MA200 GT5P-N10MA200	200 to 240V AC			
	GT5P-N1SAD24 GT5P-N6SAD24 GT5P-N10SAD24 GT5P-N60SAD24 GT5P-N6MAD24 GT5P-N10MAD24	24V AC/DC			
	GT5P-N10SD12 GT5P-N30SD12 GT5P-N60SD12 GT5P-N10MD12	12V DC			
	GT5P-F3SA100 GT5P-F10SA100 GT5P-F3SA200 GT5P-F10SA200	100 to 120V AC 200 to 240V AC			
	GT5P-F3SAD24 GT5P-F10SAD24	24V AC/DC			
	GT5P-F3SD12 GT5P-F10SD12	12V DC			
	GT5P-P3SA100 GT5P-P10SA100	100 to 120V AC			
	GT5P-P3SA200 GT5P-P10SA200	200 to 240V AC			
	GT5P-P3SAD24 GT5P-P10SAD24	24V AC/DC			

Approvals and Standards (UL/CSA)

NC1V Circuit Protectors [Electromagnetic Tripping]

Model	No. of Poles	Internal Circuit	Auxiliary Contact	Inertia Delay	Rated Current/Voltage	Time delay curve	Ratings	UL	CSA
NC1V	1 2 3	1 (series trip current trip) 11 21 12 13 22 23 31 32 33	00 (Without)	Blank (without) F (with)	0.1A, 0.3A 0.5A, 1A, 2A 3A, 5A, 7A 10A, 15A 20A, 25A 30A	S A M	1 pole: 0.1A to 30A, 250V AC 0.1A to 30A, 65V DC (except inertial delay) 2 pole: 0.1A to 30A, 250V AC 0.1A to 30A, 125V DC (except inertial delay) 3 pole: 0.1A to 30A, 250V AC (3-phase) Auxiliary contact: 3A, 125V AC/0.5A, 30V DC	Recognition E68029 Applicable Standard UL 1077	LR83454 Applicable Standard CSA C22.2 No.235
		5 (Relay trip voltage trip)	00 (Without)	Blank (Without)	24V DC Coil voltage: 24-48V DC	Blank (Without)	1-pole: 30A, 250V AC/30A, 65V DC 2-pole: 30A, 250V AC/30A, 125V DC 3-pole: 30A, 250V AC (3-phase)		

NH1 Circuit Protectors [Electromagnetic Tripping]

Model	No. of Poles	Internal Circuit	Auxiliary Contact	Inertia Delay	Ratings	Remarks	UL	CSA
NH1S NH1Y NH1L NH1V	1 2 3	1 (series trip current trip) 5 (Relay trip voltage trip) 6 (Dual coil)	00 (without) 11 (with auxiliary contact) 21 (with alarm contact)	Blank (without) F (with)	<ul style="list-style-type: none"> For current trip 0.5A to 30A 65V DC, 25V AC (50/60 Hz) Rated interrupting current 1000A, 250V AC (50/60 Hz), 65V DC Auxiliary contact/alarm contact 250V AC, 3A 	Time delay curve • AD, MD • AA, BA, MA	Recognition E68029 Applicable Standard UL 1077 ①	c-UL Recognition E68029 Applicable Standard CSA C22.2 No.235 ①

NRA Circuit Protectors [Electromagnetic Tripping]

Model	No. of Poles	Internal Circuit	Auxiliary Contact	Inertia Delay	Ratings	Remarks	UL	CSA
NRAS NRAN NRAK NRAR NRAR (illuminated)	1 2 3 1 1 1	1 (series trip current trip)	00 (Without) 11 (with auxiliary contact) 21 (with alarm contact)	Blank (Without) F (With)	<ul style="list-style-type: none"> For current trip 0.3A to 30 A, 65V DC, 250V AC Rated interrupting current 1000A, 250V AC (50/60Hz), 65V DC Auxiliary contact/alarm contact 250V AC, 50/60 Hz, 30V DC 5 A Pilot light (NRAR illuminated type) (neon type) 100 to 110, 200 to 220V AC, 50/60 Hz (LED type) 4 to 8, 8 to 16, 16 to 24, 24 to 32V DC 	Time delay curve • AD, MD • AA, BA, MA	Recognition E68029 Applicable Standard UL 1077 ②	1 (series trip current trip) E68029 Applicable Standard CSA C22.2 No.235 ②


NRBM Circuit Protectors [Electromagnetic Tripping]

Model	No. of Poles	Internal Circuit	Auxiliary Contact	Inertia Delay	Ratings	Remarks	UL	CSA
NRBM	1 2 3	1 (series trip current trip)	00 (without) 11 (with auxiliary contact) 21 (with alarm contact)	Blank (without) F (with)	<ul style="list-style-type: none"> For current trip 1A to 50A, 65V DC, 250V AC (50/60 Hz) Rated interrupting current 1000A, 250V AC (50/60Hz), 65V DC Auxiliary contact/alarm contact 250V AC, 50/60 Hz, 30V DC 5A 	Time delay curve • AD, MD • AA, BA, MA	Recognition E68029 Applicable Standard UL 1077 ③	1 (series trip current trip) E68029 Applicable Standard CSA C22.2 No.235 ③

NRLT, NRLP, NRLY, NRLR, NRLK Circuit Protectors [Electromagnetic Tripping]

Model	No. of Poles	Internal Circuit	Auxiliary Contact	Inertia Delay	Rated Current	Time Delay Curve		Pilot Light	Ratings	UL	CSA
						Curve	Circuit Voltage				
NRLT NRLY NRLR NRLK NRLY (illuminated) NRLR (illuminated)	1 2	1 (series trip current trip) 5 (Relay trip voltage trip)	00 (without) 11 (with auxiliary contact)	Blank (without) Note: No inertia delay for curve E	For current trip 0.1A to 20A	A B E	A (AC) D (DC)	(Neon) 1: 125V AC (LED) 3: 6V DC/AC 4: 12V DC/AC 5: 24V DC/AC 7: 48V DC/AC	<ul style="list-style-type: none"> Rated voltage 250V AC (50/60 Hz), 50V DC Tungsten rating 125V AC, 15A Rated interrupting current 1000A, 250V AC, 50V DC Auxiliary contact 125V AC, 3A (Res.) * 	Recognition E68029 Applicable Standard UL 1077 ④	LR83454 (Note) Applicable Standard CSA C22.2 No.235 ④
NRLP	1		00 (without)								

* NRLK2100F-15ABA is certified for TV-10.

Note: Circuit protectors certified for CSA C22.2 No. 235 have  mark, due to the recommendation by CSA C22.2 No. 235 subcommittee to differentiate them from those certified for CSA C22.2 No. 5.1.

UL/CSA Certified Models

Additional marking according to UL and CSA applicable standards

① NH1 series	② NRA series	③ NRBM series	④ NRL series
series trip FW: 0 TC: 1 OL: 0 SC: 1kA C1 250V AC 65V DC UG: Commercial Appliances	series trip FW: 0 TC: 1 OL: 0 SC: 1kA, C1 250V AC 65V DC UG: Commercial Appliances	series trip FW: 0 TC: 1 OL: 0 SC: 1kA, C1 250V AC 65V DC UG: Commercial Appliances	series trip FW: 0 TC: 2 OL: 0 SC: 1kA C1 250V AC 50V DC UG: Commercial Appliances


Approvals and Standards (UL/CSA)

NRF Circuit Protectors (16mm diameter fuse holder size) [Thermal Tripping]

Model	Part No.	Ratings	UL	CSA
NRF	NRF110 With auxiliary contact NRF111 Without manual off mechanism	Rated current 0.3, 0.5, 1, 2, 3, 5, 8, 10, 15A Rated voltage 250V AC (50/60 Hz), 32V DC Rated interrupting current UL: 1000A AC, 200A DC CSA: 0.3 to 2 A (rated current) × 6 times 3 to 15 A (rated current) × 10 times Auxiliary contact 125V AC, 50 mA	Recognition E68029 Applicable standard UL 1077 ⑥	LR83454 (Note) Applicable standard CSA C22.2 No.235 ⑥
	NRF210 With auxiliary contact NRF211 With manual off mechanism	Rated current 0.3, 0.5, 1, 2, 3, 5, 8, 10, 15A Rated voltage 250V AC (50/60 Hz), 32V DC Rated interrupting current 1000A AC, 200A DC Auxiliary contact 125V AC, 50 mA		/

NRPF/NRPS PC Board Circuit Protectors [Thermal Tripping]

Model	Part No.	Ratings	UL	CSA
NRPS NRPF	(Slim type/non-sealed) NRPS10 NRPS11 (Slim type/non-sealed) NRPS10-G NRPS11-G (Flat type/non-sealed) NRPF10 NRPF11 (Flat type/non-sealed) NRPF10-G NRPF11-G	· Rated current 1, 1.6, 2, 3.15, 4, 5, 6A · Maximum operating circuit voltage · 250V AC (50/60 Hz), 32V DC · Contact: SPST, SPDT · With manual off mechanism	Recognition E68029 Applicable standard UL 1077 ⑦	LR65560 (Note) Applicable standard CSA C22.2 No.235 ⑦

Note: Circuit protectors certified for CSA C22.2 No. 235 have  mark, due to the recommendation by CSA C22.2 No. 235 subcommittee to differentiate them from those certified for CSA C22.2 No. 5.1.

Additional marking according to UL and CSA applicable standards

⑥ NRF series	⑦ NRP series
· FW: 3 · TC: 2 · OL: 0 · SC: 1kA C1 250V AC · 200A C1 32V DC · UG: Commercial Appliances	· FW: 3 · TC: 2 · OL: 0 · SC: For 1A to 4A 10 InA C1 250V AC 32V DC For 5A, 6A 40A C1 250V AC 32V DC · UG: Commercial Appliances

Approvals and Standards (UL/CSA)

PS8S Switching Power Supplies

Model	Part No.	Output Capacity	Output Rating		Input Voltage (Single-phase two-wire system)	UL	CSA
			Voltage	Current			
PS8S	PS8S-C12A1 PS8S-C15A1 PS8S-C24A1	30W	12V	2.5A	100 to 120V AC 50/60Hz	Recognition E141913 Applicable standard UL60950-1	c-UL Recognition E141913 Applicable standard CSA C22.2 No.60950-1
	15V		2A				
	PS8S-C12A2 PS8S-C15A2 PS8S-C24A2		12V	2.5A	200 to 240V AC 50/60Hz		
			15V	2A			
			24V	1.3A			

PS5R Switching Power Supplies

Model	Part No.	Output Capacity	Output Rating		Input Voltage (Single-phase two-wire system)	UL	CSA
			Voltage	Current			
PS5R	PS5R-A05 PS5R-A12 PS5R-A24	7.5W	5V DC	1.5A	100 to 240V AC 50/60 Hz (universal voltage)	Listing E177168 Applicable standard UL508	c-UL Listing E177168 Applicable standard CSA C22.2 No.14
			12V DC	0.6A			
			24V DC	0.3A			
	PS5R-B05 PS5R-B12 PS5R-B24	15W	5V DC	2.5A			
			12V DC	1.2A			
			24V DC	0.6A			
	PS5R-C12 PS5R-C24	30W	12V DC	2.5A			
			24V DC	1.3A			
	PS5R-D24	50W	24V DC	2.1A			
	PS5R-E24	100W	24V DC	4.2A			
PS5R-Q24	75W	24V DC	3.1A	100 to 120 V/200 to 240V AC 50/60 Hz (automatic switching type)			
PS5R-F24	120W	24V DC	5.0A	100 to 240V AC 50/60 Hz (universal voltage)			
PS5R-G24	240W	24V DC	10.0A				

PS5R-S Switching Power Supplies

Model	Part No.	Output Capacity	Output Rating		Input Voltage (Single-phase two-wire system)	UL	CSA
			Voltage	Current			
PS5R-S	PS5R-SB05 PS5R-SB12 PS5R-SB24 PS5R-SC12 PS5R-SC24 PS5R-SD24 PS5R-SE24 PS5R-SF24 PS5R-SG24	10W	5V DC	2.0A	100 to 240V AC 50/60 Hz (universal voltage)	Listing E234997 Applicable standard UL508 UL1310 UL1604 Recognition E234997 Applicable standard UL1310 Class 2 (PS5R-SB/ SC/SD only)	c-UL Listing E234997 Applicable standard CSA C22.2 No.14 CSA C22.2 No.223 CSA C22.2 No.213 c-UL Recognition CSA C22.2 No.223 (PS5R-SB/ SC/SD only)
		15W	12V DC	1.2A			
		15W	24V DC	0.65A			
		30W	12V DC	2.5A			
		30W	24V DC	1.3A			
		60W	24V DC	2.5A			
		90W	24V DC	3.75A			
		120W	24V DC	5.0A			
		240W	24V DC	10.0A			

PS5R-V Switching Power Supplies

Model	Part No.	Output Capacity	Output Rating		Input Voltage (Single-phase two-wire system)	UL	CSA
			Voltage	Current			
PS5R-V	PS5R-VB05 PS5R-VB12 PS5R-VB24 PS5R-VC12 PS5R-VC24 PS5R-VD24 PS5R-VE24 PS5R-VF24 PS5R-VG24	10W	5V DC	2.0 A	100 to 240V AC 50/60 Hz (universal voltage)	Listing E177168 Applicable standard UL508 UL1310* *PS5R-VB/ VC/VD/VE E467154 Applicable standard ANSI/ISA 12.12.01	c-UL Listing E177168 Applicable standard CSA C22.2 No.107.1 CSA C22.2 No.213 CSA C22.2 No.223* *PS5R-VB/ VC/VD/VE E467154 Applicable standard CSA C22.2 No.213
		15W	12V DC	1.3 A			
		15W	24V DC	0.65 A			
		30W	12V DC	2.5 A			
		30W	24V DC	1.3 A			
		60W	24V DC	2.5 A			
		90W	24V DC	3.75 A			
		120W	24V DC	5.0 A			
		240W	24V DC	10.0 A			

Approvals and Standards (UL/CSA)

PS6R Switching Power Supplies

Model	Part No.	Output Capacity	Output Rating		Input Voltage (Single-phase two-wire system)	UL	CSA
			Voltage	Current			
PS6R	PS6R-F24	120W	24V DC	5.0A	100 to 240V AC 50/60 Hz (universal voltage)	Listing E467154 Applicable standard UL508 ANSI/ISA 12.12.01	c-UL Listing E467154 Applicable standard CSA C22.2 No.107.1 CSA C22.2 No.213
	PS6R-G24	240W	24V DC	10.0A			
	PS6R-J24	480W	24V DC	20.0A			

PS3L Switching Power Supplies

Model	Part No.	Output Capacity	Output Rating		Input Voltage (Single-phase two-wire system)	UL	CSA
			Voltage	Current			
PS3L	PS3L-C05AF	30W	5V DC	6.0A	100 to 240V AC 50/60 Hz (universal voltage)	Listing E177168 Applicable standard UL508 Recognition E141913 Applicable standard UL1950 (connector type)	c-UL Listing E177168 Applicable standard CSA C22.2 No.14 c-UL Recognition E141913 Applicable standard CSA C22.2 No. 950 (connector type)
	PS3L-C12AF		12V DC	2.5A			
	PS3L-C24AF	24V DC	1.3A				
	PS3L-D12AF	50W	12V DC	4.3A			
	PS3L-D24AF		24V DC	2.2A			
	PS3L-E12AF	100W	12V DC	8.5A			
PS3L-E24AF	24V DC		4.5A				
PS3L-F12AF	150W	12V DC	13.0A				
PS3L-F24AF		24V DC	6.5A				
PS3L-G24AF	300W	24V DC	12.5A				

PS3X Switching Power Supplies

Model	Part No.	Output Rating		UL	CSA
		Output	Input		
PS3X	PS3X-B05AFC	5V DC, 3A 12V DC, 1.3A 24V DC, 0.63A	100 to 240V AC, 0.5A, 47 to 63Hz	Recognition E141913 Applicable standard UL60950-1	c-UL Recognition E141913 Applicable standard CSA C22.2 No.60950-1
	PS3X-B12AFC				
	PS3X-B24AFC				
	PS3X-C05AFC	100 to 240V AC, 0.65A, 47 to 63Hz			
	PS3X-C12AFC				
	PS3X-C24AFC	100 to 240V AC, 1.3A, 47 to 63Hz			
PS3X-D05AFG					
PS3X-D12AFG					
PS3X-D24AFG	100 to 240V AC, 1.8A, 47 to 63Hz				
PS3X-Q05AFG					
PS3X-Q12AFG					
PS3X-Q24AFG	100 to 240V AC, 2.5A, 47 to 63Hz				
PS3X-E05AFG					
PS3X-E12AFG					
PS3X-E24AFG	24V DC, 4.5A				

Approvals and Standards (UL/CSA)

Programmable Logic Controllers

Name	Model	Ratings (Voltage Input)	UL	CSA
FC4A/FC5A MicroSmart	FC4A/FC5A	100 to 240V AC or 24V DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.213 & 142
FC6A MicroSmart	FC6A	100 to 240V AC or 24V DC 12V DC	Listing E211795 Applicable Standard UL508 ANSI/ISA12.12.01 (ANSI: some models)	c-UL Listing E211795 Applicable Standard CSA C22.2 No.213 & 142
FL1F SmartRelay	FL1F	100 to 240V AC 24V DC 12/24V DC 24V AC/DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.213 & 142
FT1A SmartAXIS	FT1A	100 to 240V AC or 24V DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.213 & 142

Operator Interfaces

Name	Model	Ratings (Voltage Input)	UL	CSA
HG1	HG1F	24V DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.142 & 213
HG2	HG2G	24V DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.142 & 213
HG3	HG3G	24V DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.142
HG4	HG4G	24V DC	Listing E211795 Applicable Standard UL508 & ANSI/ISA12.12.01	c-UL Listing E211795 Applicable Standard CSA C22.2 No.142

CC Pendants

Name	Model	Ratings (Voltage Input)	UL	CSA
CC Pendants	HG1T-S	24V DC, 4W	Listing E102542 Applicable Standard UL508 & UL1740	c-UL Listing E102542 Applicable Standard CSA C22.2 No. 14
	HG1H	5 or 24V DC, 2.8W		
	HG1U	5 or 24V DC, 4W		

Approvals and Standards (UL/CSA)

SA1E Miniature Photoelectric Switches (Built-in Amplifier)

Name	Model	Ratings	UL	CSA		
SA1E	Through Beam	SA1E-TN* SA1E-TN***M SA1E-TN*C SA1E-TAN* SA1E-TAN***M SA1E-TAN*C	SA1E-TP* SA1E-TP***M SA1E-TP*C SA1E-TAP* SA1E-TAP***M SA1E-TAP*C	12 to 24V DC Output: 30V DC max, I _{max} 100mA	UL Listing E222927 Applicable Standard UL508	c-UL Listing E222927 Applicable Standard CSA C22.2 No.14
	Through Beam	SA1E-TN*-NA SA1E-TN*-NA***M SA1E-TN*C-NA SA1E-TN1	SA1E-TP*-NA SA1E-TP*-NA***M SA1E-TP*C-NA SA1E-TP1			
	Polarized Reflective	SA1E-PN* SA1E-PN***M SA1E-PN*C SA1E-PN*-NA SA1E-PN*-NA***M SA1E-PN*C-NA	SA1E-PP* SA1E-PP***M SA1E-PP*C SA1E-PP*-NA SA1E-PP*-NA***M SA1E-PP*C-NA			
	Diffuse Reflective	SA1E-DN* SA1E-DN***M SA1E-DN*C	SA1E-DP* SA1E-DP***M SA1E-DP*C			
	Small-beam Reflective	SA1E-NN* SA1E-NN***M SA1E-NN*C	SA1E-NP* SA1E-NP***M SA1E-NP*C			
	Background Suppression	SA1E-BN* SA1E-BN***M SA1E-BN*C	SA1E-BP* SA1E-BP***M SA1E-BP*C			
	Convergent Reflective	SA1E-GN* SA1E-GN***M SA1E-GN*C	SA1E-GP* SA1E-GP***M SA1E-GP*C			
SA1E-X	Coaxial Polarized Retro-reflective	SA1E-XN* SA1E-XN***M SA1E-XN*C	SA1E-XP* SA1E-XP***M SA1E-XP*C			

SA1U Photoelectric Switches

Name	Model	Ratings	UL	CSA
SA1U	SA1U-T50M SA1U-T50MT SA1U-P07M SA1U-P07MT SA1U-D01M SA1U-D01MT SA1U-B02M SA1U-B02MT	24-240V AC 12-240V DC	Listing E222927 Applicable Standard UL508	c-UL Listing E222927 Applicable Standard CSA C22.2 No.14
	SA1U-T50MW SA1U-T50MWT SA1U-P07MW SA1U-P07MWT SA1U-D01MW SA1U-D01MWT SA1U-B02MW SA1U-B02MWT	12-24V DC		

Linear CCD Scanners

Name	Model	Ratings	UL	CSA
WB1F	WB1F***S	5V DC, 0.2A	Listing Applicable Standard UL60950-1	c-UL Listing Applicable Standard CSA C22.2 No. 60950-1
	WB1F***B	5V DC, 0.2A	Recognition Applicable Standard UL60950-1	c-UL Recognition Applicable Standard CSA C22.2 No. 60950-1

Approvals and Standards (UL/CSA)

LED Illumination Units

Name	Model	Ratings	UL	CSA
LF1D	LF1D	24V DC	Listing E327633 Applicable Standard UL2108	c-UL Listing E327633 Applicable Standard CSA C22.2 No. 250.0
LF2D	LF2D			
LF1B-N	LF1B-N			
LF1A	LF1A Standard model only			
LF2B	LF2B	12/24V DC		

LD6A Signalight Towers

Name	Model	Ratings	UL	CSA
LD6A	LD6A	24V DC	Listing E68961 Applicable Standard UL508	c-UL Listing E68961 Applicable Standard CSA C22.2 No. 14

LH series Surface Mount Indicators

Name	Model	Ratings	UL	CSA
LH1D	LH1D	Cable wiring model 24V AC/DC, 0.6W, Class 2 Connector wiring model 24V DC, 0.6W, Class 2	Listing E68961 Applicable Standard UL508	c-UL Listing E68961 Applicable Standard CSA C22.2 No. 14