



**Update 09/2016**  
Terminal control valves



# Building HVAC components

Belparts is specialized in the development, production and marketing of components for the automation of HVAC-systems in buildings. We design field components that exactly match market needs. Throughout the development process, we ensure functionality, quality and reliability.

Belparts produces field components for all areas of HVAC, whether production, distribution, or terminal control of heating and cooling, as well as ventilation. Whatever the HVAC-application, we have it covered.

Our field components are designed to be smoothly integrated with any Building Management System (BMS), Direct Digital Controller (DDC), Programmable Logic Controller (PLC), and Supervisory Control and Data Acquisition (SCADA) system.

## A leading player for more than two decades

Belparts was established in 1987 by professionals from the HVAC-industry. Since then, we have developed a reputation for intelligent product design and reliable solutions. Our company has enjoyed a healthy success ever since its foundation.

## Market driven innovation

We constantly strive for product and system optimizations. Our engineers incorporate the latest proven technological developments into the design of new HVAC-components and understand how to combine high quality with product affordability.

## Shared competency and values

The Belparts staff shares a common passion for technology, product design, quality, and HVAC-applications. Each of our team members is both customer and results-oriented, and is trained to think 'innovation'. Integrity and responsibility are prerequisites for every employee.



## energetx



Belparts produces a broad range of components that save costs at every single point in your HVAC-system. By selecting the optimal component for each individual situation, considerable amounts of energy can be saved. Our **energetx**-range of products includes control valves, rotating valves, valve and air damper actuators, terminal control valves, and sensors.

## dynamx



Based on our revolutionary Dynamic Flow Networking (DFN) concept, our **dynamx**-valves adjust the flow of energy exactly to the desired conditions. This ensures that only the exact amount of energy is delivered at the right place and at the right time. The result is optimal comfort and reduced energy costs.

# energetx

## 6. Terminal control valves



<b>Actuators</b>	<b>8</b>
<b>2-port control valves</b>	<b>12</b>
<b>3-port control valves</b>	<b>22</b>
<b>4-port control valves</b>	<b>28</b>
<b>Multifunctional</b>	<b>32</b>
<b>PICV</b>	<b>36</b>



## Product key

The product identification key contains all essential data defining the unique features of the terminal control valve/actuator combination.

Example: type NV2D15.BA4007.02 X10

NV	2	D	15	BA	4007	.02	X10
Control valve				Actuator			

**Type of terminal control valve** (complete overview on next page)

**NV..** terminal control valve PN16  
**NVP..** terminal control valve PN16 with flat connections

**Number of ports**

**2** 2-port valve  
**3** 3-port valve  
**4** 4-port valve

**Mounting**

**D** valve body with threaded connection

**DN and Kvs value**

**15** DN15, with fixed Kvs value  
**15V** DN15, with settable Kvs value

**Type of actuator**

**BA** electrothermal actuator  
**10U** electric motor (example)

**Type of control signal**

**2007** AC 230 Volt On/Off + PWM (NC)  
**4007** AC 24 Volt On/Off + PWM (NC)  
**6547** AC 24 Volt Y: 2..10Vdc

**Conditioning of the wiring cable**

**00** without cable  
**-** wiring cable, length 1m (standard)  
**02** wiring cable, length 2m

**Special fonctions/versions/packaging**

**X10** packaging per 10 pieces

## Order reference

The Belparts terminal control valves can be ordered with a single order reference number. The selection table shows nominal size DN and Kvs value on the right page (odd page numbers). Do you want to order valve body and thermic actuator as separate parts, you will find all information required on the left page (even page numbers).






Please feel free to contact us for free selection and calculation support of the terminal control valves. We will be pleased to help you determine the most energy efficient solution.









## Overview

	TYPE	DN					Material	Version	PN	T° range	Kvs [m³/h]	Page
		10	15	20	25	32						
	NV2D..	●	●	●	-	-	nickel plated brass	straight <sup>2)</sup>	16	+2..+100°C	0,05..1,5	<b>12</b>
	NVP2D..	-	●	-	-	-	nickel plated brass	straight	16	+2..+100°C	0,05..1,2	<b>14</b>
	N2D..	●	●	●	●	●	nickel plated bronze	straight <sup>2)</sup>	10	+2..+100°C	0,02..6,7	<b>16</b>
	N2D-P..	-	-	●	●	-	bronze	straight	10	+2..+100°C	2,5	<b>18</b>
	NG2P..	-	●	●	●	-	brass	straight	16	+2..+100°C	0,63..4,5	<b>20</b>
	NR2P..	-	●	●	●	-	nickel plated bronze	straight	16	+2..+100°C	0,16..4,5	<sup>1)</sup>
	NSM2P..	-	●	●	-	-	brass	<sup>3)</sup>	16	+2..+100°C	2,15..2,8	<b>32</b>

	TYPE	DN					Material	Version	PN	T° range	Kvs [m³/h]	Page
		10	15	20	25	32						
	N3D..	-	●	●	●	●	bronze	diverting	10	+2..+100°C	2,47..5,12	<b>22</b>
	NM3D..	-	●	●	●	-	bronze	mixing	10	+2..+100°C	0,05..6,4	<b>24</b>
	NG3P..	-	●	●	●	-	brass	mixing	16	+2..+100°C	1,0..4,5	<b>26</b>

	TYPE	DN					Material	Version	PN	T° range	Kvs [m³/h]	Page
		10	15	20	25	32						
	NV4D..	-	●	●	-	-	brass	diverting	16	+2..+100°C	0,4..2,5	<b>28</b>
	NG4P..	-	●	●	●	-	brass	mixing	16	+2..+100°C	0,63..4,5	<b>30</b>

	TYPE	DN					Material	l/h	Version	PN	T° range	Kvs [m³/h]	Page
		10	15	20	25	32							
	NC2D..	-	●	●	-	-	brass		straight	10	-10..+100°C	0,45..4,5	<b>34</b>
	NCQ(M)..	-	●	●	●	●	brass	30..3.600	straight	16	-10..+100°C		<b>36</b>

<sup>1)</sup> on request

<sup>2)</sup> also available in angled version

<sup>3)</sup> with measuring ports for  $\Delta p$  or T°

## Product key

BA	4	0	0	6	00	01	-
basic version					features		

### Series

**BA** Belparts thermic actuator for terminal controls

### Power supply

- 1** AC 120 Volt
- 2** AC 230 Volt
- 3** DC 12 Volt
- 4** AC/DC 24 Volt
- 6** AC 24 Volt, modulating
- 7** DC 24 Volt, modulating
- 8** *available for later use*
- 9** AC 24 Volt, ECO

### Function & stroke

- 0** 4,0mm, 100N, normally closed (NC)
- 1** 4,0mm, 100N, normally open (NO)
- 5** 5,0mm, 100N, normally closed (NC)
- 51** 5,0mm, 100N, normally open (NO)
- 65** 6,5mm, 120N, normally closed (NC)
- 66** 6,5mm, 120N, normally open (NO)

### Special options for on/off versions BA6 or BA7

- 0** standard version (no special options)
- 1** without 'First-Open' function
- 2** with integrated end switch
- 3** *available for later use*

### Special options for modulating versions BA6 or BA7

- 0** *available for later use*
- 1** 0..10Vdc (100kOhm)
- 2** 10..0Vdc (100kOhm)
- 3** 2..10Vdc (100kOhm)
- 4** 2..10Vdc (100kOhm), with 'Stroke Adapt' function
- 5** split range 5..1Vdc
- 6** split range 6..10Vdc
- 7** *available for later use*
- 8** *available for later use*
- 9** FLEX version (operating range  $\Delta$ 0..10Vdc factory programmable)

### Special options for modulating versions BA9

- 0** >1,5Vdc 'ON' ; <1Vdc 'OFF' (100kOhm)
- 1** >6Vdc 'ON' ; <5,5Vdc 'OFF' (100kOhm)

### Design type

- 6** 1Watt version, fixed cable
- 7** 1Watt version, cable with connector

### Valve adapter

- 00** delivery without valve adapter (*to be ordered separately*)
- 50** delivery with valve adapter, type VA50
- 80** delivery with valve adapter, type VA80

### Cable length (L) for electrical wiring

- 00** without cable (*to be ordered separately, L: 1, 2, 5, 10, 15, 20m*)
- 01** with cable, L: 1m
- 02** with cable, L: 2m

### Special versions

- *no specific customization*
- N** neutral version (*no logo*)
- HC** version with cable free of halogen
- ... etc.

### 'Stroke Adapt' function



Thanks to the stroke adapt function the travel of the actuator is automatically 100% adapted to the stroke of the control valve.

# New generation of thermic actuators

The latest generation of thermic actuators benefits from many innovations which make these actuators even more suited for the most diverse requirements in terminal control applications.

The scope of application is now enlarged because of the greater stroke these actuators offer. On top of that different other design innovations offer numerous opportunities for energy and cost savings.

In particular, in the field of energy consumption a new milestone is put into the market. Thanks to modern technology, the power consumption can be reduced by 50%! The latest series of thermic actuators BA6/BA7 therefore consumes only 1W in operation.



## Basic characteristics of the thermic actuators

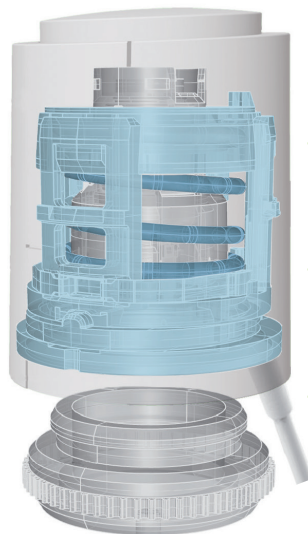


Compact design,  
small sizes

Stroke of 4mm, 5mm,  
6,5mm or on request

“Click-on” mounting without  
the need for tools

Compatible with up to 99%  
of all valves available on  
the market



Position indicator  
extremely visible 360°

High degree of protection  
against water and moisture

Wiring cable fixed  
or with connector

## More efficient, more compact, more features

Small in size, but big in performance: energy-efficient with only 1 Watt of energy consumption. With a production volume of over 2 million units a year this saves a total of approx. 2 megawatts! The BA6/BA7 series offers even more. In the new range you'll find the right actuator to fit every valve for every application. Compared to the previous generation the new series has been designed to be even more compact (3.5mm less installation height), while at the same time ensuring 100% backwards compatibility.





## Actuators modulating

BA6/BA7

- Normally closed version NC (or NO)
- With or without 'First-Open' function
- Flexible adaption of connecting cable
- $U_v$ : AC 24 Volt, 50/60Hz
- Control signal Y: 0(2)..10Vdc
- Unique valve adapter concept (order separately)



TYPE	Stroke [mm] (max)	Force [N]	NC	NO	$U_v$		Y					Stroke Adapt	Cable with connector	Cable [m]	Price €/pc
					AC 24 Volt <sup>1)</sup>	AC 230 Volt	0..10Vdc	2..10Vdc	Split range 5..1Vdc	Split range 6..10Vdc	ECO				
Thermic actuators modulating, with cable connector															
BA6037.00.00	4.0	100	●		●			●				-	●	*	60,-
BA6037.00.01	4.0	100	●		●			●				-	●	1	65,-
BA6137.00.00	4.0	100		●	●		●					-	●	*	62,-
BA6137.00.01	4.0	100		●	●		●					-	●	1	67,-
BA6057.00.00	4.0	100	●		●				●			-	●	*	79,-
BA6057.00.01	4.0	100	●		●				●			-	●	1	84,-
BA6067.00.00	4.0	100	●		●					●		-	●	*	79,-
BA6067.00.01	4.0	100	●		●					●		-	●	1	84,-
BA9007.00.00	4.0	100	●		●						●	-	●	*	64,-
BA9007.00.01	4.0	100	●		●						●	-	●	1	69,-
BA6537.00.00	5.0	100	●		●			●				-	●	*	62,-
BA6537.00.01	5.0	100	●		●			●				-	●	1	67,-
BA6547.00.00	5.0	100	●		●			●			●	-	●	*	68,-
BA6547.00.01	5.0	100	●		●			●			●	-	●	1	73,-
BA66537.00.00	6.5	125	●		●			●				-	●	*	68,-
BA66537.00.01	6.5	125	●		●			●				-	●	*	73,-
BA66547.00.00	6.5	125	●		●			●			●	-	●	1	74,-
BA66547.00.01	6.5	125	●		●			●			●	-	●	1	79,-

\* cable, type ALL.. to order separately (page 10)

<sup>1)</sup>  $U_v$ : AC 24 Volt -10%..+20%, 50/60Hz

▲ standard

NC: normally closed, the actuator will drive the actuator spindle down when power supply is interrupted

NO: normally open, the actuator will drive the actuator spindle up when power supply is interrupted



## Actuators On/Off, PWM

- Normally closed version NC (or NO)
- With or without 'First-Open' function
- Cable with connector or fixed
- U<sub>v</sub>: AC/DC 24 Volt, 50/60Hz or AC 230 Volt, 50/60Hz
- Control signal Y: On/Off, PWM
- Unique valve adapter concept (order separately)

TYPE	Stroke [mm] (max)	Force [N]	NC	NO	U <sub>v</sub>		Y				Stroke Adapt	Fixed cable	Cable with connector	Cable [m]	Price €/pc
					AC/DC 24 Volt <sup>1)</sup>	AC 230 Volt	On/Off	PWM	3P	2..10Vdc					
Thermic actuators On/Off & PWM, with cable connector															
BA2007.00.00	4.0	100	●			●	●	●			-	-	●	*	26,-
BA2007.00.01	4.0	100	●			●	●	●			-	-	●	1	31,-
BA2107.00.01	4.0	100		●		●	●	●			-	-	●	1	33,-
BA4007.00.00	4.0	100	●			●	●	●			-	-	●	*	26,-
BA4007.00.01	4.0	100	●			●	●	●			-	-	●	1	31,-
BA4107.00.01	4.0	100		●		●	●	●			-	-	●	1	33,-
BA2507.00.00	5.0	100	●			●	●	●			-	-	●	*	28,-
BA2507.00.01	5.0	100	●			●	●	●			-	-	●	1	33,-
BA25107.00.01	5.0	100		●		●	●	●			-	-	●	1	35,-
BA4507.00.00	5.0	100	●			●	●	●			-	-	●	*	28,-
BA4507.00.01	5.0	100	●			●	●	●			-	-	●	1	33,-
BA45107.00.01	5.0	100		●		●	●	●			-	-	●	1	35,-
BA26507.00.00	6.5	125	●			●	●	●			-	-	●	*	33,-
BA26507.00.01	6.5	125	●			●	●	●			-	-	●	1	38,-
BA26607.00.01	6.5	125		●		●	●	●			-	-	●	1	40,-
BA46507.00.00	6.5	125	●			●	●	●			-	-	●	*	33,-
BA46507.00.01	6.5	125	●			●	●	●			-	-	●	1	38,-
BA46607.00.01	6.5	125		●		●	●	●			-	-	●	1	40,-
Thermic actuators On/Off & PWM, with fixed cable															
BA2006.00.01	4.0	100	●			●	●	●			-	●	-	1	29,-
BA2106.00.01	4.0	100		●		●	●	●			-	●	-	1	31,-
BA4006.00.01	4.0	100	●			●	●	●			-	●	-	1	29,-
BA4106.00.01	4.0	100		●		●	●	●			-	●	-	1	31,-
BA2506.00.01	5.0	100	●			●	●	●			-	●	-	1	31,-
BA25106.00.01	5.0	100		●		●	●	●			-	●	-	1	33,-
BA4506.00.01	5.0	100	●			●	●	●			-	●	-	1	31,-
BA45106.00.01	5.0	100		●		●	●	●			-	●	-	1	33,-
BA26506.00.01	6.5	125	●			●	●	●			-	●	-	1	36,-
BA26606.00.01	6.5	125		●		●	●	●			-	●	-	1	38,-
BA46506.00.01	6.5	125	●			●	●	●			-	●	-	1	36,-
BA46606.00.01	6.5	125		●		●	●	●			-	●	-	1	38,-

\* cable, type ALL.. to order separately (page 10)

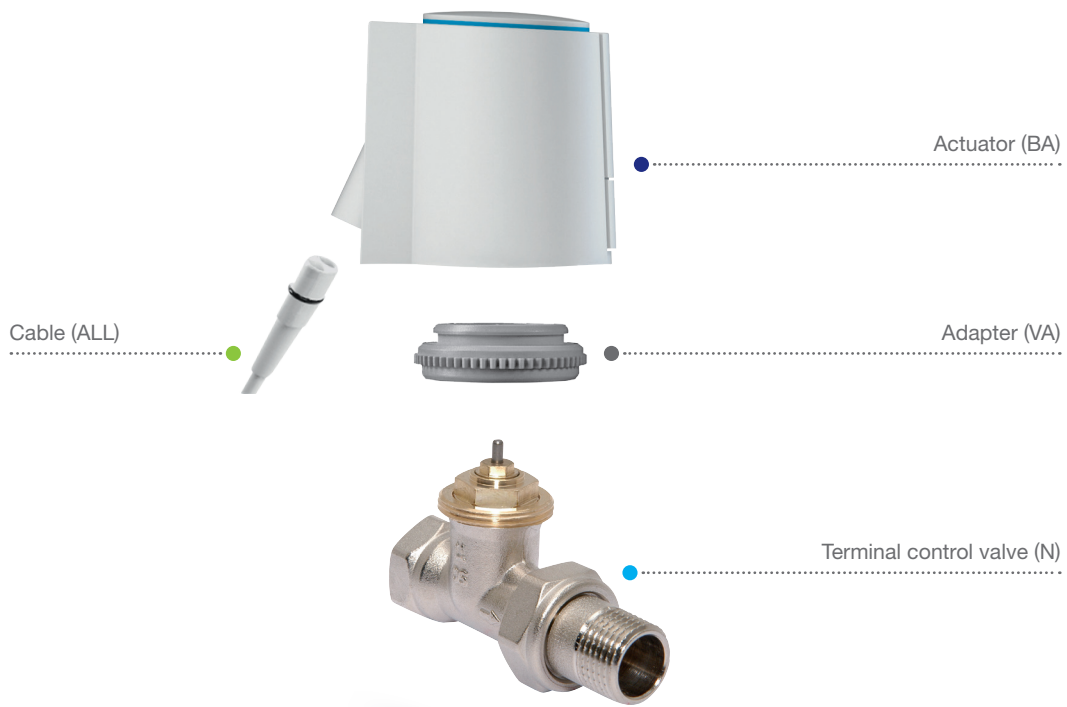
<sup>1)</sup> U<sub>v</sub>: AC/DC 24 Volt -10%...+20%, 50/60Hz

▲ standard

NC: normally closed, the actuator will drive the actuator spindle down when power supply is interrupted



NO: normally open, the actuator will drive the actuator spindle up when power supply is interrupted

## Terminal control valves tailor made



## Wiring cables

For the electric wiring of thermic actuators, series BA.. wiring cables can be ordered separately. Different cable lengths available on request (max. 20m). Halogen-free cables on request.

	TYPE	# wires	[m]	Price €/pc
<b>Cable for On/Off, PWM versions</b>				
	ALL5.2.01000	2	1	5,-
	ALL5.2.02000	2	2	6,-
	ALL5.2.03000	2	3	7,-
	ALL5.2.05000	2	5	9,-
<b>Cable for modulating versions</b>				
	ALL5.3.01000	3	1	5,-
	ALL5.3.02000	3	2	6,-
	ALL5.3.03000	3	3	7,-
	ALL5.3.05000	3	5	9,-




## Valve adapter overview

For a complete overview of all available valve adapters: see [www.belparts.com](http://www.belparts.com). Some examples are listed in the table below:

	TYPE	Belparts valves	Third party valves	Price €/pc
	VA10	NV4D.. NFQ(M)..	Dumser • Cronatherm • Vescal • KaMo • TA TBV-CM • TA TBV-CMP	2,-
	VA16		Herz	2,-
	VA26		Giacomini	2,-
	VA41		Danfoss ABQM DN10, DN20	2,-
	VA50		Honeywell • Reich • L+S • MNG • Cazzaniga • TA Coil	2,-
	VA78		Danfoss RA..	3,-
	VA80	NV2D.., NVE2D.. NVX2D.., NVXE2D.. NVP2D.. N2D..(-P), NE2D.. N3D.., NM3D.. NC.., NCH.., NCQ..	TA TBV-C • Oventrop	2,-
	VA80-H	NV2D.., NVE2D.. NVX2D.., NVXE2D.. NVP2D.. N2D..(-P), NE2D.. N3D.., NM3D.. NC.., NCH..	TA TBV-C • Oventrop	3,-
	VA90		Herz	2,-

## 2-port terminal control valves • PN16 • threaded

- 2-port terminal control valve nickel plated brass
- DN10, DN15 or DN20 (straight) <sup>3)</sup>
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed or settable
- PN16
- Eurocone with connection part

	TYPE	DN	Kvs	In	Out	Price €/pc
	NV2D10	3/8"	1,2	ISO7/1 Rp3/8"	▶ EC with connection part ISO7/1 R3/8"	15,-
	NV2D10V <sup>1)</sup>	3/8"	0,80	ISO7/1 Rp3/8"	▶ EC with connection part ISO7/1 R3/8"	18,-
	NV2D10F <sup>2)</sup>	3/8"	0,35	ISO7/1 Rp3/8"	▶ EC with connection part ISO7/1 R3/8"	18,-
	NV2D15	1/2"	1,2	ISO7/1 Rp1/2"	▶ EC with connection part ISO7/1 R1/2"	16,-
	NV2D15V <sup>1)</sup>	1/2"	0,80	ISO7/1 Rp1/2"	▶ EC with connection part ISO7/1 R1/2"	19,-
	NV2D15F <sup>2)</sup>	1/2"	0,35	ISO7/1 Rp1/2"	▶ EC with connection part ISO7/1 R1/2"	19,-
	NV2D20	3/4"	1,5	ISO7/1 Rp3/4"	▶ EC with connection part ISO7/1 R3/4"	23,-
	NV2D20V <sup>1)</sup>	3/4"	0,80	ISO7/1 Rp3/4"	▶ EC with connection part ISO7/1 R3/4"	25,-
	NV2D20F <sup>2)</sup>	3/4"	0,35	ISO7/1 Rp3/4"	▶ EC with connection part ISO7/1 R3/4"	25,-

<sup>1)</sup> adjustable Kvs value: 0,10 - 0,20 - 0,30 - 0,40 - 0,57 - 0,80 m<sup>3</sup>/h

<sup>2)</sup> adjustable Kvs value: 0,05 - 0,08 - 0,11 - 0,17 - 0,25 - 0,35 m<sup>3</sup>/h

<sup>3)</sup> also available as angled version, type NVE2D..., on request

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>4)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC)24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>4)</sup> NO version on request

<sup>5)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port terminal control valves

- 2-port terminal control valve nickel plated brass
- PN16 • DN10, DN15 or DN20 (straight)
- Kvs: fixed or settable
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed

NV2D..



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



±234mm  
stroke adapt

DN	TYPE	Kvs	$\Delta p_s$ <sup>4)</sup>							
3/8"	NV2D10	1,2	250	€	48,-	49,-	48,-	49,-	90,-	91,-
3/8"	NV2D10V <sup>2)</sup>	0,80	250	€	51,-	52,-	51,-	52,-	93,-	94,-
3/8"	NV2D10F <sup>3)</sup>	0,35	250	€	51,-	52,-	51,-	52,-	93,-	94,-
1/2"	NV2D15	1,2	250	€	49,-	50,-	49,-	50,-	91,-	92,-
1/2"	NV2D15V <sup>2)</sup>	0,80	250	€	52,-	53,-	52,-	53,-	94,-	95,-
1/2"	NV2D15F <sup>3)</sup>	0,35	250	€	52,-	53,-	52,-	53,-	94,-	95,-
3/4"	NV2D20	1,5	150	€	56,-	57,-	56,-	57,-	98,-	99,-
3/4"	NV2D20V <sup>2)</sup>	0,80	150	€	58,-	59,-	58,-	59,-	100,-	101,-
3/4"	NV2D20F <sup>3)</sup>	0,35	150	€	58,-	59,-	58,-	59,-	100,-	101,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup> adjustable Kvs value: 0,10 - 0,20 - 0,30 - 0,40 - 0,57 - 0,80 m<sup>3</sup>/h

<sup>3)</sup> adjustable Kvs value: 0,05 - 0,08 - 0,11 - 0,17 - 0,25 - 0,35 m<sup>3</sup>/h

<sup>4)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
NV2D15V.BA4007	2-port terminal control valve DN15 (1/2") Kvs 0,8 adjustable, with thermic actuator (1Watt) AC 24 Volt On/Off including 1m cable and valve adapter VA80
NV2D15V.BA4007.02	2-port terminal control valve DN15 (1/2") Kvs 0,8 adjustable, with thermic actuator (1Watt) AC 24 Volt On/Off including 2m cable and valve adapter VA80


Datasheet





## 2-port terminal control valves • PN16 • flat connections

- 2-port terminal control valve nickel plated brass
- DN15 (straight)
- Medium: water +2...+100°C (VDI 2035)
- Kvs: fixed or settable
- PN16
- Flat connections ISO228/1

	TYPE	DN	Kvs	In	Out	Price €/pc
	NVP2D15	1/2"	1,2	G1/2"	G1/2"	14,-
	NVP2D15V <sup>1)</sup>	1/2"	0,80	G1/2"	G1/2"	16,-
	NVP2D15F <sup>2)</sup>	1/2"	0,35	G1/2"	G1/2"	16,-


<sup>1)</sup> adjustable Kvs value: 0,10 - 0,20 - 0,30 - 0,40 - 0,57 - 0,80 m<sup>3</sup>/h

<sup>2)</sup> adjustable Kvs value: 0,05 - 0,08 - 0,11 - 0,17 - 0,25 - 0,35 m<sup>3</sup>/h

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>3)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
 BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>3)</sup> NO version on request

<sup>4)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port terminal control valves

## NVP2D..

- 2-port terminal control valve nickel plated brass
- PN16 • DN15 (straight)
- Kvs: fixed or settable
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



±234mm  
stroke adapt

DN	TYPE	Kvs	$\Delta p_s$ <sup>4)</sup>							
1/2"	<b>NVP2D15</b>	1,2	250	€	47,-	48,-	47,-	48,-	89,-	90,-
1/2"	<b>NVP2D15V</b> <sup>2)</sup>	0,80	250	€	49,-	50,-	49,-	50,-	91,-	92,-
1/2"	<b>NVP2D15F</b> <sup>3)</sup>	0,35	250	€	49,-	50,-	49,-	50,-	91,-	92,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup> adjustable Kvs value: 0,10 - 0,20 - 0,30 - 0,40 - 0,57 - 0,80 m<sup>3</sup>/h

<sup>3)</sup> adjustable Kvs value: 0,05 - 0,08 - 0,11 - 0,17 - 0,25 - 0,35 m<sup>3</sup>/h

<sup>4)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

### Ordering examples

#### NVP2D15F.BA2007

2-port terminal control valve DN15 (1/2"), 2x flat connections, Kvs 0,35 adjustable, with thermic actuator (1Watt) AC 230 Volt On/Off, including 1m cable and valve adapter VA80

#### NVP2D15F.BA2007.02

2-port terminal control valve DN15 (1/2"), 2x flat connections, Kvs 0,35 adjustable, with thermic actuator (1Watt) AC 230 Volt On/Off, including 2m cable and valve adapter VA80

### Datasheet



## 2-port terminal control valves • PN10 • threaded

- 2-port terminal control valve nickel plated bronze Rg-5
- DN10..DN32 (straight) <sup>2)</sup>
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed or settable
- PN10
- Eurocone with connection part

	TYPE	DN	Kvs	In	Out	Price €/pc
	N2D10A	3/8"	1,80	ISO7/1 Rp3/8"	▶ EC with connection part ISO7/1 R3/8"	31,-
	N2D10	3/8"	1,50	ISO7/1 Rp3/8"	▶ EC with connection part ISO7/1 R3/8"	23,-
	N2D10VF <sup>1)</sup>	3/8"	0,86	ISO7/1 Rp3/8"	▶ EC with connection part ISO7/1 R3/8"	25,-
	N2D15A	1/2"	2,50	ISO7/1 Rp1/2"	▶ EC with connection part ISO7/1 R1/2"	34,-
	N2D15	1/2"	2,00	ISO7/1 Rp1/2"	▶ EC with connection part ISO7/1 R1/2"	25,-
	N2D15VF <sup>1)</sup>	1/2"	0,86	ISO7/1 Rp1/2"	▶ EC with connection part ISO7/1 R1/2"	27,-
	N2D20A	3/4"	4,50	ISO7/1 Rp3/4"	▶ EC with connection part ISO7/1 R3/4"	49,-
	N2D20	3/4"	2,50	ISO7/1 Rp3/4"	▶ EC with connection part ISO7/1 R3/4"	32,-
	N2D20VF <sup>1)</sup>	3/4"	0,86	ISO7/1 Rp3/4"	▶ EC with connection part ISO7/1 R3/4"	33,-
	N2D25	1"	5,70	ISO7/1 Rp1"	▶ EC with connection part ISO7/1 R1"	52,-
N2D32	1 1/4"	6,70	ISO7/1 Rp1 1/4"	▶ EC with connection part ISO7/1 R1 1/4"	84,-	

<sup>1)</sup> adjustable Kvs value: 0,049 - 0,102 - 0,185 - 0,313 - 0,420 - 0,565 - 0,740 - 0,860 m<sup>3</sup>/h

<sup>2)</sup> also available as angled version, type NE2D.., on request

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>3)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>3)</sup> NO version on request

<sup>4)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)



## Motorized 2-port terminal control valves

**N2D..**

- 2-port terminal control valve nickel plated bronze Rg-5
- PN10 • DN10..DN32 (straight)
- Kvs: fixed or settable
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



±234mm  
stroke adapt

DN	TYPE	Kvs	$\Delta p_s$ <sup>3)</sup>							
3/8"	<b>N2D10A</b>	1,80	250	€	64,-	65,-	64,-	65,-	106,-	107,-
3/8"	<b>N2D10</b>	1,50	250	€	56,-	57,-	56,-	57,-	98,-	99,-
3/8"	<b>N2D10VF</b> <sup>2)</sup>	0,86	250	€	58,-	59,-	58,-	59,-	100,-	101,-
1/2"	<b>N2D15A</b>	2,50	250	€	67,-	68,-	67,-	68,-	109,-	110,-
1/2"	<b>N2D15</b>	2,00	250	€	58,-	59,-	58,-	59,-	100,-	101,-
1/2"	<b>N2D15VF</b> <sup>2)</sup>	0,86	250	€	60,-	61,-	60,-	61,-	102,-	103,-
3/4"	<b>N2D20A</b>	4,50	150	€	82,-	83,-	82,-	83,-	124,-	125,-
3/4"	<b>N2D20</b>	2,50	150	€	65,-	66,-	65,-	66,-	107,-	108,-
3/4"	<b>N2D20VF</b> <sup>2)</sup>	0,86	150	€	66,-	67,-	66,-	67,-	108,-	109,-
1"	<b>N2D25</b>	5,70	100	€	85,-	86,-	85,-	86,-	127,-	128,-
1 1/4"	<b>N2D32</b>	6,70	30	€	117,-	118,-	117,-	118,-	159,-	160,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup> adjustable Kvs value: 0,049 - 0,102 - 0,185 - 0,313 - 0,420 - 0,565 - 0,740 - 0,860 m<sup>3</sup>/h

<sup>3)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).


Ordering examples	Description
<b>N2D15VF.BA2007</b>	2-port terminal control valve DN15 (1/2") Kvs 0,86 adjustable, with thermic actuator (1Watt) AC 230 Volt On/Off, including 1m cable and valve adapter VA80
<b>N2D15VF.BA2007.02</b>	2-port terminal control valve DN15 (1/2") Kvs 0,86 adjustable, with thermic actuator (1Watt) AC 230 Volt On/Off, including 2m cable and valve adapter VA80

Datasheet



## 2-port terminal control valves • PN10 • flat connections


- 2-port terminal control valve bronze Rg-5
- DN15..DN20 (straight)
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed
- PN10
- Flat connections ISO228/1

	TYPE	DN	Kvs	In	Out	Price €/pc
	N2D15PA	3/4"	2,50	G3/4"	G3/4"	26,-
	N2D20PA	1"	2,50	G1"	G1"	34,-

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
 BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port terminal control valves

### N2D..-P

- 2-port terminal control valve bronze Rg-5
- PN10 • DN15..DN20 (straight)
- Kvs: fixed
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE						
		BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m

DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>							
3/4"	<b>N2D15PA</b>	2,50	150	€	<b>59,-</b>	<b>60,-</b>	<b>59,-</b>	<b>60,-</b>	<b>101,-</b>	<b>102,-</b>
1"	<b>N2D20PA</b>	2,50	200	€	<b>67,-</b>	<b>68,-</b>	<b>67,-</b>	<b>68,-</b>	<b>109,-</b>	<b>110,-</b>

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).


Ordering examples	Description
<b>N2D15PA.BA2007</b>	2-port terminal control valve DN15 (3/4") Kvs 2,50, with thermic actuator (1Watt) AC 230 Volt On/Off, including 1m cable and valve adapter VA80
<b>N2D15PA.BA2007.02</b>	2-port terminal control valve DN15 (3/4") Kvs 2,50, with thermic actuator (1Watt) AC 230 Volt On/Off, including 2m cable and valve adapter VA80

Datasheet



## 2-port terminal control valves • PN16 • threaded

- 2-port terminal control valve brass
- DN15, DN20 or DN25 (straight)
- Medium: water +2..+100°C (VDI 2035)
- Kvs: settable
- PN16
- Flat connections ISO228/1

	TYPE	DN	Kvs	In	Out	Price €/pc
	NG2P15A	1/2"	1,6	G1/2"	▶ G1/2"	15,-
	NG2P15B	1/2"	1,0	G1/2"	▶ G1/2"	15,-
	NG2P15C	1/2"	0,63	G1/2"	▶ G1/2"	15,-
	NG2P20A	3/4"	3,5	G3/4"	▶ G3/4"	17,-
	NG2P20B	3/4"	2,5	G3/4"	▶ G3/4"	17,-
	NG2P25A	1"	4,5	G1"	▶ G1"	19,-

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port terminal control valves

### NG2P..

- 2-port terminal control valve brass
- PN16 • DN15, DN20 or DN25 (straight)
- Kvs: settable
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



±234mm  
stroke adapt

DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>							
1/2"	NG2P15A <sup>3)</sup>	1,6	250	€	48,-	49,-	48,-	49,-	90,-	91,-
1/2"	NG2P15B <sup>4)</sup>	1,0	250	€	48,-	49,-	48,-	49,-	90,-	91,-
1/2"	NG2P15C <sup>5)</sup>	0,63	250	€	48,-	49,-	48,-	49,-	90,-	91,-
3/4"	NG2P20A <sup>6)</sup>	3,5	180	€	50,-	51,-	50,-	51,-	92,-	93,-
3/4"	NG2P20B <sup>7)</sup>	2,5	180	€	50,-	51,-	50,-	51,-	92,-	93,-
1"	NG2P25A <sup>8)</sup>	4,5	100	€	52,-	53,-	52,-	53,-	94,-	95,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

<sup>3)</sup> adjustable Kvs value: 0,2 - 0,63 - 1,0 - 1,3 - 1,5 - 1,6 m<sup>3</sup>/h

<sup>4)</sup> adjustable Kvs value: 0,2 - 0,3 - 0,4 - 0,63 - 0,85 - 1,0 m<sup>3</sup>/h

<sup>5)</sup> adjustable Kvs value: 0,2 - 0,4 - 0,5 - 0,55 - 0,6 - 0,63 m<sup>3</sup>/h

<sup>6)</sup> adjustable Kvs value: 1,0 - 1,9 - 2,5 - 2,9 - 3,1 - 3,5 m<sup>3</sup>/h

<sup>7)</sup> adjustable Kvs value: 0,3 - 1,1 - 1,9 - 2,2 - 2,4 - 2,5 m<sup>3</sup>/h

<sup>8)</sup> adjustable Kvs value: 1,0 - 1,9 - 3,0 - 3,9 - 4,2 - 4,5 m<sup>3</sup>/h

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
NG2P15A.BA4007	2-port terminal control valve DN15 (1/2") Kvs 1,6 adjustable, with thermic actuator (1Watt) AC 24 Volt On/Off, including 1m cable and valve adapter VA80
NG2P15A.BA4007.02	2-port terminal control valve DN15 (1/2") Kvs 1,6 adjustable, with thermic actuator (1Watt) AC 24 Volt On/Off, including 2m cable and valve adapter VA80

Datasheet





## 3-port terminal control valves • PN10 • flat connections with connection part • diverting

- 3-port terminal control valve bronze
- PN10 • DN15..DN25 (diverting)
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed
- Flat connections with connection part ISO7/1
- With NC actuator port I-II normally closed <sup>1)</sup>



	TYPE	DN	Kvs	In	Out	Price €/pc
	N3D15	½"	2,47	ISO7/1 R½"	ISO7/1 R½"	102,-
	N3D20	¾"	3,48	ISO7/1 R¾"	ISO7/1 R¾"	122,-
	N3D25	1"	5,12	ISO7/1 R1"	ISO7/1 R1"	160,-

<sup>1)</sup> NO version on request

▲ standard

Delivery includes threaded connection parts according ISO7/1. Soldering- or welding parts can be delivered on request. Also available with conical connection (instead of flat): on request.

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>2)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>2)</sup> NO version on request

<sup>3)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 3-port terminal control valves • diverting

N3D..



- 3-port terminal control valve bronze
- PN10 • DN15..DN25 (diverting)
- Kvs: fixed
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve port I-II normally closed <sup>2)</sup>

	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m

DN	TYPE	Kvs	$\Delta p_s$ <sup>3)</sup>							
½"	N3D15	2,47	120	€	135,-	136,-	135,-	136,-	177,-	178,-
¾"	N3D20	3,48	75	€	155,-	156,-	155,-	156,-	197,-	198,-
1"	N3D25	5,12	50	€	193,-	194,-	193,-	194,-	235,-	236,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup> NO version on request

<sup>3)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
N3D20.BA4007	3-port terminal diverting control valve DN20 (¾") Kvs 3,48 fixed, with thermic actuator (1Watt) AC 24 Volt On/Off, including 1m cable and valve adapter VA80
N3D20.BA4007.02	3-port terminal diverting control valve DN20 (¾") Kvs 3,48 fixed, with thermic actuator (1Watt) AC 24 Volt On/Off, including 2m cable and valve adapter VA80

Datasheet



## 3-port terminal control valve • PN10 • flat connections with connection part • mixing

- 3-port terminal control valve bronze, PN10
- PN10 • DN15..DN32 (mixing)
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed or settable
- Flat connections with connection part ISO7/1
- With NC actuator port A-AB normally open



	TYPE	DN	Kvs	In	Out	Price €/pc
	NM3D15	1/2"	2,50	ISO7/1 R1/2"	ISO7/1 R1/2"	102,-
	NM3D15V <sup>1)</sup>	1/2"	1,10	ISO7/1 R1/2"	ISO7/1 R1/2"	104,-
	NM3D20	3/4"	3,50	ISO7/1 R3/4"	ISO7/1 R3/4"	122,-
	NM3D20V <sup>2)</sup>	3/4"	2,11	ISO7/1 R3/4"	ISO7/1 R3/4"	124,-
	NM3D25	1"	4,60	ISO7/1 R1"	ISO7/1 R1"	160,-
	NM3D32	1 1/4"	6,40	ISO7/1 R1 1/4"	ISO7/1 R1 1/4"	264,-

<sup>1)</sup> adjustable Kvs value: 0,05 - 0,15 - 0,25 - 0,56 - 0,70 - 1,10 m<sup>3</sup>/h

<sup>2)</sup> adjustable Kvs value: 0,32 - 0,55 - 0,92 - 1,42 - 1,61 - 2,11m<sup>3</sup>/h

▲ standard

Delivery includes threaded connection parts according ISO7/1. Soldering- or welding parts can be delivered on request. Also available with conical connection (instead of flat): on request.

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>3)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>3)</sup> NO version on request

<sup>4)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 3-port terminal control valves • mixing

### NM3D..

- 3-port terminal control valve bronze
- PN10 • DN15..DN32 (mixing)
- Kvs: fixed or settable
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve port A-AB normally open



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



DN	TYPE	Kvs	$\Delta p_s$ <sup>4)</sup>							
1/2"	NM3D15	2,50	120	€	135,-	136,-	135,-	136,-	177,-	178,-
1/2"	NM3D15V <sup>2)</sup>	1,10	120	€	137,-	138,-	137,-	138,-	179,-	180,-
3/4"	NM3D20	3,50	75	€	155,-	156,-	155,-	156,-	197,-	198,-
3/4"	NM3D20V <sup>3)</sup>	2,11	75	€	157,-	158,-	157,-	158,-	199,-	200,-
1"	NM3D25	4,60	50	€	193,-	194,-	193,-	194,-	235,-	236,-
1 1/4"	NM3D32	6,40	20	€	297,-	298,-	297,-	298,-	339,-	340,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup> adjustable Kvs value: 0,05 - 0,15 - 0,25 - 0,56 - 0,70 - 1,10 m<sup>3</sup>/h

<sup>3)</sup> adjustable Kvs value: 0,32 - 0,55 - 0,92 - 1,42 - 1,61 - 2,11m<sup>3</sup>/h

<sup>4)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

### Ordering examples

Ordering examples	Description
NM3D25.BA6547	3-port terminal mixing control valve DN25 (1") Kvs 4,60 fixed, with thermic actuator (1Watt) AC 24 Volt control signal Y: 2..10Vdc with 'Stroke Adapt' function, including 1m cable and valve adapter VA80
NM3D25.BA6547.02	3-port terminal mixing control valve DN25 (1") Kvs 4,60 fixed, with thermic actuator (1Watt) AC 24 Volt control signal Y: 2..10Vdc with 'Stroke Adapt' function, including 2m cable and valve adapter VA80


### Datasheet



### 3-port terminal control valve • PN16 • flat connection • mixing

- 3-port terminal control valve brass
- PN16 • DN15..DN25 (mixing)
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed
- Flat connections ISO228/1
- With NC actuator control port A-AB normally closed




	TYPE	DN	Kvs	In	Out	Price €/pc
	NG3P15A	½"	1,0	G½"	G½"	21,-
	NG3P20A	¾"	2,5	G¾"	G¾"	22,-
	NG3P25A	1"	4,5	G1"	G1"	25,-

▲ standard

### Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
 BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 3-port terminal control valves • mixing

- 3-port terminal control valve brass
- PN16 • DN15..DN25 (mixing)
- Kvs: Kvs: fixed
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve control port normally closed

NG3P..



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



±234mm  
stroke adapt

DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>							
½"	NG3P15A	1,0	250	€	54,-	55,-	54,-	55,-	96,-	97,-
¾"	NG3P20A	2,5	180	€	55,-	56,-	55,-	56,-	97,-	98,-
1"	NG3P25A	4,5	100	€	58,-	59,-	58,-	59,-	100,-	101,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
NG3P20A.BA4007	2-port terminal control valve DN20 (¾") Kvs 2,5 fixed, with thermic actuator (1Watt) AC 24 Volt On/Off, including 1m cable and valve adapter VA80
NG3P20A.BA4007.02	2-port terminal control valve DN20 (¾") Kvs 2,5 fixed, with thermic actuator (1Watt) AC 24 Volt On/Off, including 2m cable and valve adapter VA80

Datasheet





## 4-port terminal control valve • PN16 • flat connections • diverting

- 4-port terminal control valve brass
- DN15 or DN20 (diverting)
- Medium: water +2...+100°C (VDI 2035)
- Kvs: fixed
- PN16
- With flat connections ISO228/1



	TYPE	DN	Kvs	H	In	Out	Price €/pc
	NV4D15A	1/2"	1,6	40mm	G1/2"	G1/2"	31,-
	NV4D15B	1/2"	1,0	40mm	G1/2"	G1/2"	31,-
	NV4D15C	1/2"	0,63	40mm	G1/2"	G1/2"	31,-
	NV4D15D	1/2"	0,4	40mm	G1/2"	G1/2"	31,-
	NV4D20A	3/4"	2,5	50mm	G3/4"	G3/4"	33,-

H: distance between supply and return connection

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA10

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA10	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA10	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA10	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA10	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA10	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA10	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA10	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA10	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA10	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 4-port terminal control valves • diverting

### NV4D..

- 4-port terminal control valve brass
- PN16 • DN15/DN20 • flat connections
- Kvs: fixed
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve control port normally closed



±234mm  
stroke adapt

	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA10	VA10	VA10	VA10	VA10	VA10
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>							
1/2"	NV4D15A	1,6	150	€	64,-	65,-	64,-	65,-	106,-	107,-
1/2"	NV4D15B	1,0	150	€	64,-	65,-	64,-	65,-	106,-	107,-
1/2"	NV4D15C	0,63	150	€	64,-	65,-	64,-	65,-	106,-	107,-
1/2"	NV4D15D	0,4	150	€	64,-	65,-	64,-	65,-	106,-	107,-
3/4"	NV4D20A	2,5	100	€	66,-	67,-	66,-	67,-	108,-	109,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA10) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
NV4D15A.BA4007	4-port terminal control valve DN15 (1/2"), Kvs 1,60 fixed, with thermic actuator (1Watt) AC 24 Volt PWM control signal, including 1m cable and valve adapter VA10
NV4D15A.BA4007.02	4-port terminal control valve DN15 (1/2"), Kvs 1,60 fixed, with thermic actuator (1Watt) AC 24 Volt PWM control signal, including 2m cable and valve adapter VA10

Datasheet



## 4-port terminal control valve • PN16 • flat connections • mixing

- 4-port terminal control valve brass
- DN15..DN25 (mixing)
- Medium: water +2..+100°C (VDI 2035)
- Kvs: fixed
- PN16
- With flat connections ISO228/1



	TYPE	DN	Kvs	H	In	Out	Price €/pc
	NG4P15A	1/2"	1,6	40mm	G1/2" ▶	G1/2"	21,-
	NG4P15B	1/2"	1,0	40mm	G1/2" ▶	G1/2"	21,-
	NG4P15C	1/2"	0,63	40mm	G1/2" ▶	G1/2"	21,-
	NG4P20A	3/4"	3,5	40mm	G3/4" ▶	G3/4"	25,-
	NG4P20B	3/4"	2,5	40mm	G3/4" ▶	G3/4"	25,-
	NG4P25A	1"	4,5	50mm	G1" ▶	G1"	31,-

H: distance between supply and return connection

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 4-port terminal control valves • mixing

- 4-port terminal control valve brass
- PN16 • DN15..DN25 • flat connections
- Kvs: fixed
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal Y: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve control port normally closed

NG4P..



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



±234mm  
stroke adapt

DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>								
½"	NG4P15A	1,6	250	€	54,-	55,-	54,-	55,-	96,-	97,-	
½"	NG4P15B	1,0	250	€	54,-	55,-	54,-	55,-	96,-	97,-	
½"	NG4P15C	0,63	250	€	54,-	55,-	54,-	55,-	96,-	97,-	
¾"	NG4P20A	3,5	180	€	58,-	59,-	58,-	59,-	100,-	101,-	
¾"	NG4P20B	2,5	180	€	58,-	59,-	58,-	59,-	100,-	101,-	
1"	NG4P25A	4,5	100	€	64,-	65,-	64,-	65,-	106,-	107,-	

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).


Ordering examples	Description
NG4P15A.BA4007	4-port terminal control valve DN15 (½"), Kvs 1,60 fixed, with thermic actuator (1Watt) AC 24 Volt PWM control signal, including 1m cable and valve adapter VA80
NG4P15A.BA4007.02	4-port terminal control valve DN15 (½"), Kvs 1,60 fixed, with thermic actuator (1Watt) AC 24 Volt PWM control signal, including 2m cable and valve adapter VA80

Datasheet



## 2-port multifunctional terminal control valves • PN16 • with measuring connections


- 2-port terminal control valve brass
- DN15 and DN20
- Medium: water +2..+100°C (VDI 2035)
- Kvs: settable, with measuring nipples
- PN16
- With flat connections or inside thread

	TYPE	DN	Kvs	In	Out	Price €/pc
	NSM2P15	1/2"	2,15	Flat connections G1/2"	▶ Flat connections G1/2"	66,-
	NSM2P20	3/4"	2,80	Flat connections G3/4"	▶ Flat connections G3/4"	74,-
	NSM2T15	1/2"	2,15	Inside thread G1/2"	▶ Inside thread G1/2"	66,-
	NSM2T20	3/4"	2,80	Inside thread G3/4"	▶ Inside thread G3/4"	74,-

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
 BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port multifunctional terminal control valves • PN16

NSM2..

- 2-port terminal control valve brass
- PN16 • DN15 and DN20
- Kvs: settable, with measuring nipples
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m



DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>							
1/2"	NSM2P15	2,15	100	€	99,-	100,-	99,-	100,-	141,-	142,-
3/4"	NSM2P20	2,80	100	€	107,-	108,-	107,-	108,-	149,-	150,-
1/2"	NSM2T15	2,15	100	€	99,-	100,-	99,-	100,-	141,-	142,-
3/4"	NSM2T20	2,80	100	€	107,-	108,-	107,-	108,-	149,-	150,-

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
NSM2P15.BA4007	2-port terminal control valve DN15 (1/2") Kvs 2,15 with thermic actuator (1Watt) AC 24 Volt On/Off, including 1m cable and valve adapter VA80
NSM2P15.BA4007.02	2-port terminal control valve DN15 (1/2") Kvs 2,15 with thermic actuator (1Watt) AC 24 Volt On/Off, including 2m cable and valve adapter VA80


Datasheet





## 2-port multifunctional terminal control valves 'Cocon' • PN16 • with connection part

- 2-port terminal control valve brass
- DN15..DN32
- Medium: water -10..+100°C (VDI 2035)
- Kvs: settable
- PN16
- Inside thread ▶ with connection part ISO7/1


	TYPE	DN	Kvs	I/h	In	Out	Price €/pc
	▶ NC2D15A	1/2"	1,8	150..1050	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	<b>81,-</b>
	▶ NC2D15B	1/2"	1,1	90..450	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	<b>81,-</b>
	▶ NC2D15C	1/2"	0,5	30..210	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	<b>81,-</b>
	▶ NC2D20A	3/4"	2,5	180..1300	ISO7/1 Rp3/4"	▶ with connection part ISO7/1 R3/4"	<b>114,-</b>
	▶ NC2D20B	3/4"	1,8	150..1050	ISO7/1 Rp3/4"	▶ with connection part ISO7/1 R3/4"	<b>114,-</b>
	▶ NC2D25	1"	4,0	300..2000	ISO7/1 Rp1"	▶ with connection part ISO7/1 R1"	<sup>1)</sup>
	▶ NC2D32	1 1/4"	6,0	600..3600	ISO7/1 Rp1 1/4"	▶ with connection part ISO7/1 R1 1/4"	<sup>1)</sup>

<sup>1)</sup> on request

▲ standard

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- U<sub>v</sub>: AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	U <sub>v</sub>			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
 BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		<b>28,-</b>
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		<b>33,-</b>
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		<b>34,-</b>
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		<b>28,-</b>
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		<b>33,-</b>
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		<b>34,-</b>
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	<b>70,-</b>
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	<b>75,-</b>
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	<b>76,-</b>

<sup>2)</sup> NO version on request

<sup>3)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port multifunctional terminal control valves 'Cocon' • PN16

NC2D..

- 2-port terminal control valve brass
- PN16 • DN15..DN32
- Kvs: settable
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM	•	•				
AC/DC 24 Volt	Y: on/off, PWM			•	•		
AC 24 Volt	Y: 2..10Vdc					•	•
	Power	100N	100N	100N	100N	100N	100N
	Function NC	•	•	•	•	•	•
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>	1m	2m	1m	2m	1m	2m

DN	TYPE	Kvs	$\Delta p_s$ <sup>2)</sup>							
1/2"	NC2D15A	1,8	100	€	114,-	115,-	114,-	115,-	156,-	157,-
1/2"	NC2D15B	1,1	100	€	114,-	115,-	114,-	115,-	156,-	157,-
1/2"	NC2D15C	0,5	100	€	114,-	115,-	114,-	115,-	156,-	157,-
3/4"	NC2D20A	2,5	50	€	147,-	148,-	147,-	148,-	189,-	190,-
3/4"	NC2D20B	1,8	50	€	147,-	148,-	147,-	148,-	189,-	190,-
1"	NC2D25	4,0	<sup>3)</sup>	€	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>
1 1/4"	NC2D32	6,0	<sup>3)</sup>	€	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>	<sup>3)</sup>

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup>  $\Delta p_s$  indicates the maximum pressure difference in kPa (taking into account noise levels it is recommended to reduce the pressure difference over the terminal control valve to its minimum, and not more than 30 kPa)

<sup>3)</sup> on request

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

Ordering examples	Description
NC2D15A.BA4007	2-port Cocon terminal control valve DN15 (1/2") Kvs 1,8 with thermic actuator (1Watt) AC 24 Volt On/Off, including 1m cable and valve adapter VA80
NC2D15A.BA4007.02	2-port Cocon terminal control valve DN15 (1/2") Kvs 1,8 with thermic actuator (1Watt) AC 24 Volt On/Off, including 2m cable and valve adapter VA80


Datasheet




## 2-port PICV terminal control valves • PN16 • with tail piece

- 2-port PICV control valve brass
- DN15..DN32
- Medium: water 0..+100°C (VDI 2035)
- PN16
- Pressure independant flow, adjustable ( $P_{const}$ : 15 or 20kPa)
- With or without measuring nippels flat connection on request

### Series NCQ.. • without measuring connections

	TYPE	DN	I/h	In	Out	Price €/pc
	NCQ2D15A	1/2"	150..1050	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	137,-
	NCQ2D15B	1/2"	90..450	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	137,-
	NCQ2D15C	1/2"	30..210	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	137,-
	NCQ2D20	3/4"	150..1050	ISO7/1 Rp3/4"	▶ with connection part ISO7/1 R3/4"	173,-
	NCQ2D25	1"	300..2000	ISO7/1 Rp1"	▶ with connection part ISO7/1 R1"	261,-
	NCQ2D32	1 1/4"	600..3600	ISO7/1 Rp1 1/4"	▶ with connection part ISO7/1 R1 1/4"	353,-

### Series NCQM.. • with measuring connections

	TYPE	DN	I/h	In	Out	Price €/pc
	NCQM2D15A	1/2"	150..1050	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	164,-
	NCQM2D15B	1/2"	90..450	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	164,-
	NCQM2D15C	1/2"	30..210	ISO7/1 Rp1/2"	▶ with connection part ISO7/1 R1/2"	164,-
	NCQM2D20	3/4"	150..1050	ISO7/1 Rp3/4"	▶ with connection part ISO7/1 R3/4"	200,-
	NCQM2D25	1"	300..2000	ISO7/1 Rp1"	▶ with connection part ISO7/1 R1"	291,-
	NCQM2D32	1 1/4"	600..3600	ISO7/1 Rp1 1/4"	▶ with connection part ISO7/1 R1 1/4"	391,-

## Thermic actuators, 1W

- 100N, normally closed version (NC) <sup>1)</sup>
- 'First-Open' function (FO)
- Flexible adaption of connecting cable
- $U_v$ : AC (DC) 24 Volt, 50/60 Hz or AC 230 Volt, 50/60 Hz
- Control signal Y: On/Off, PWM or 2..10Vdc
- With valve adapter, type VA80

TYPE	$U_v$			VA	Y			Incl. cable connector	Cable length (L)	Incl. valve adapter	NC	FO	Stroke Adapt	Price €/pc
	AC/DC 24 Volt	AC 24 Volt	AC 230 Volt		On/off	PWM	2..10Vdc							
BA2007.80.00			●	1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA2007.80.01			●	1,0	●	●		●	1m	VA80	●	●		33,-
BA2007.80.02			●	1,0	●	●		●	2m	VA80	●	●		34,-
BA4007.80.00	●			1,0	●	●		-	<sup>5)</sup>	VA80	●	●		28,-
BA4007.80.01	●			1,0	●	●		●	1m	VA80	●	●		33,-
BA4007.80.02	●			1,0	●	●		●	2m	VA80	●	●		34,-
BA6547.80.00		●		1,0			●	-	<sup>5)</sup>	VA80	●	●	●	70,-
BA6547.80.01		●		1,0			●	●	1m	VA80	●	●	●	75,-
BA6547.80.02		●		1,0			●	●	2m	VA80	●	●	●	76,-

<sup>1)</sup> NO version on request

<sup>2)</sup> cable, type ALL.. with length (L) to be ordered separately (page 10)

## Motorized 2-port PICV terminal control valves • PN16

NCQ..

- 2-port PICV control valve brass
- PN16 • DN15..DN32
- With First-Open function
- Power supply  $U_v$ : AC 24 Volt or AC 230 Volt
- Control signal: On/Off, PWM or 2..10Vdc
- With 1W, NC actuator valve normally closed



	TYPE	BA2007	BA2007.02	BA4007	BA4007.02	BA6547	BA6547.02
AC 230 Volt	Y: on/off, PWM		●				
AC/DC 24 Volt	Y: on/off, PWM			●	●		
AC 24 Volt	Y: 2..10Vdc					●	●
	Power		100N	100N	100N	100N	100N
	Function NC	●	●	●	●	●	●
	Incl. adapter	VA80	VA80	VA80	VA80	VA80	VA80
	Cable (L) <sup>1)</sup>		2m	1m	2m	1m	2m



±234mm  
stroke adapt

### Series NCQ.. • without measuring connections

DN	TYPE	I/h							
½"	NCQ2D15A	150..1050	€	170,-	171,-	170,-	171,-	212,-	213,-
½"	NCQ2D15B	90..450	€	170,-	171,-	170,-	171,-	212,-	213,-
½"	NCQ2D15C	30..210	€	170,-	171,-	170,-	171,-	212,-	213,-
¾"	NCQ2D20	150..1050	€	206,-	207,-	206,-	207,-	248,-	249,-
1"	NCQ2D25	300..2000	€	2)	2)	2)	2)	2)	2)
1¼"	NCQ2D32	600..3600	€	2)	2)	2)	2)	2)	2)

### Series NCQM.. • with measuring connections

DN	TYPE	I/h							
½"	NCQM2D15A	150..1050	€	197,-	198,-	197,-	198,-	239,-	240,-
½"	NCQM2D15B	90..450	€	197,-	198,-	197,-	198,-	239,-	240,-
½"	NCQM2D15C	30..210	€	197,-	198,-	197,-	198,-	239,-	240,-
¾"	NCQM2D20	150..1050	€	233,-	234,-	233,-	234,-	275,-	276,-
1"	NCQM2D25	300..2000	€	2)	2)	2)	2)	2)	2)
1¼"	NCQM2D32	600..3600	€	2)	2)	2)	2)	2)	2)

<sup>1)</sup> removable cable (with connector)

<sup>2)</sup> on request

▲ standard

The assembly in the selection table above includes the delivery of the terminal control valve with its thermic actuator, the valve adapter (VA80) and the connecting cable for electric wiring (cable length 1m).

Extra cost for each extra meter of cable: 1,-€/m (page 10).

#### Ordering examples

**NCQM2D15A.BA4007** 2-port PICV terminal control valve NCQM DN15 (½"), flow range 150..1050l/h, with thermic actuator (1Watt) AC 24 Volt On/Off, including 1m cable and valve adapter VA80

**NCQM2D15A.BA4007.02** 2-port PICV terminal control valve NCQM DN15 (½"), flow range 150..1050l/h, with thermic actuator (1Watt) AC 24 Volt On/Off, including 2m cable and valve adapter VA80

#### Datasheet



# Overview 5.0mm and 6.5mm NEW



OLD TYPE NR.	Stroke [mm]	Force [N]	NC	NO	AC/DC 24 Volt	AC 24 Volt	DC 24 Volt	AC 230 Volt	On/Off, PWM	Y: 0..10Vdc	Y: 10..0Vdc	Y: 2..10Vdc	FO	FC	CON	Cable [m]	Remarks	NEW TYPE NR.
-	5.0	100	•		•				•				•	•	-	1		BA4506.00.01
-	5.0	100	•		•				•				•	•	-	2		BA4506.00.02
-	5.0	100	•		•				•				-	•	-	1		BA4516.00.01
-	5.0	100	•		•				•				-	•	-	2		BA4516.00.02
-	5.0	100	•					•	•				•	•	-	1		BA2506.00.01
-	5.0	100	•					•	•				•	•	-	2		BA2506.00.02
-	5.0	100	•					•	•				-	•	-	1		BA2516.00.01
-	5.0	100	•					•	•				-	•	-	2		BA2516.00.02
-	5.0	100		•	•				•				-	•	-	1		BA45116.00.01
-	5.0	100		•	•				•				-	•	-	2		BA45116.00.02
-	5.0	100		•				•	•				-	•	-	1		BA25116.00.01
-	5.0	100		•				•	•				-	•	-	2		BA25116.00.02
-	5.0	100	•		•				•				•	-	•	-		BA4507.00.00
-	5.0	100	•		•				•				•	-	•	1		BA4507.00.01
-	5.0	100	•		•				•				•	-	•	2		BA4507.00.02
-	5.0	100	•		•				•				-	-	•	-		BA4517.00.00
-	5.0	100	•		•				•				-	-	•	1		BA4517.00.01
-	5.0	100	•		•				•				-	-	•	2		BA4517.00.02
-	5.0	100	•					•	•				•	-	•	-		BA2507.00.00
-	5.0	100	•					•	•				•	-	•	1		BA2507.00.01
-	5.0	100	•					•	•				•	-	•	2		BA2507.00.02
-	5.0	100	•					•	•				-	-	•	-		BA2517.00.00
-	5.0	100	•					•	•				-	-	•	1		BA2517.00.01
-	5.0	100	•					•	•				-	-	•	2		BA2517.00.02
-	5.0	100		•	•				•				-	-	•	-		BA45107.00.00
-	5.0	100		•	•				•				-	-	•	1		BA45107.00.01
-	5.0	100		•	•				•				-	-	•	2		BA45107.00.02
-	5.0	100		•				•	•				-	-	•	-		BA25107.00.00
-	5.0	100		•				•	•				-	-	•	1		BA25107.00.01
-	5.0	100		•				•	•				-	-	•	2		BA25107.00.02
-	5.0	100	•			•						•	•	-	•	-		BA6537.00.00
-	5.0	100	•			•						•	•	-	•	1		BA6537.00.01
-	5.0	100	•			•						•	•	-	•	2		BA6537.00.02
-	5.0	100	•					•					•	-	•	-		BA6517.00.00
-	5.0	100	•					•					•	-	•	1		BA6517.00.01
-	5.0	100	•					•					•	-	•	2		BA6517.00.02
-	5.0	100	•							•			•	-	•	-		BA6527.00.00
-	5.0	100	•							•			•	-	•	1		BA6527.00.01
-	5.0	100	•							•			•	-	•	2		BA6527.00.02
-	5.0	100	•					•				•	•	-	•	-	+ Stroke Adapt	BA6547.00.00
-	5.0	100	•					•				•	•	-	•	1	+ Stroke Adapt	BA6547.00.01
-	5.0	100	•					•				•	•	-	•	2	+ Stroke Adapt	BA6547.00.02
-	5.0	100	•				•			•			•	-	•	-		BA7517.00.00
-	5.0	100	•				•			•			•	-	•	1		BA7517.00.01
-	5.0	100	•				•			•			•	-	•	2		BA7517.00.02
-	6.5	125	•		•				•				•	•	-	1		BA46506.00.01
-	6.5	125	•		•				•				•	•	-	2		BA46506.00.02
-	6.5	125	•					•	•				•	•	-	1		BA26506.00.01
-	6.5	125	•					•	•				•	•	-	1		BA26506.00.01
-	6.5	125	•		•				•				•	-	•	-		BA46507.00.00
-	6.5	125	•		•				•				•	-	•	1		BA46507.00.01
-	6.5	125	•		•				•				•	-	•	2		BA46507.00.02
-	6.5	125	•					•	•				•	-	•	-		BA26507.00.00
-	6.5	125	•					•	•				•	-	•	1		BA26507.00.01
-	6.5	125	•					•	•				•	-	•	2		BA26507.00.02
-	6.5	125		•	•				•				-	•	-	1		BA46606.00.01
-	6.5	125		•	•				•				-	•	-	2		BA46606.00.02
-	6.5	125		•				•	•				-	•	-	1		BA26606.00.01
-	6.5	125		•				•	•				-	•	-	2		BA26606.00.02
-	6.5	125		•	•				•				-	-	•	-		BA46607.00.00
-	6.5	125		•	•				•				-	-	•	1		BA46607.00.01
-	6.5	125		•	•				•				-	-	•	2		BA46607.00.02
-	6.5	125		•				•	•				-	-	•	-		BA26607.00.00
-	6.5	125		•				•	•				-	-	•	1		BA26607.00.01
-	6.5	125		•				•	•				-	-	•	2		BA26607.00.02

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Conversion list 4.0mm



OLD TYPE NR.	Stroke [mm]	Force [N]	NC	NO	AC/DC 24 Volt	AC 24 Volt	DC 24 Volt	AC 230 Volt	On/Off, PWM	Y: 0..10Vdc	Y: 10..0Vdc	Y: 2..10Vdc	FO	FC	CON	Cable [m]	Remarks	NEW TYPE NR.
BA4004.00.01	4.0	100	•	•				•					•	•	-	1		BA4006.00.01
BA4004.00.02	4.0	100	•	•				•					•	•	-	2		BA4006.00.02
-	4.0	100	•	•				•					-	•	-	1		BA4016.00.01
-	4.0	100	•	•				•					-	•	-	2		BA4016.00.02
BA2004.00.01	4.0	100	•					•	•				•	•	-	1		BA2006.00.01
BA2004.00.02	4.0	100	•					•	•				•	•	-	2		BA2006.00.02
-	4.0	100	•					•	•				-	•	-	1		BA2016.00.01
-	4.0	100	•					•	•				-	•	-	2		BA2016.00.02
BA4104.00.01	4.0	100		•	•			•					-	•	-	1		BA4116.00.01
BA4104.00.02	4.0	100		•	•			•					-	•	-	2		BA4116.00.02
BA2104.00.01	4.0	100		•				•	•				-	•	-	1		BA2116.00.01
BA2104.00.02	4.0	100		•				•	•				-	•	-	2		BA2116.00.02
BA4005.00.00	4.0	100	•		•			•					•	-	•	-		BA4007.00.00
BA4005.00.01	4.0	100	•		•			•					•	-	•	1		BA4007.00.01
BA4005.00.02	4.0	100	•		•			•					•	-	•	2		BA4007.00.02
-	4.0	100	•		•			•					-	-	•	-		BA4017.00.00
-	4.0	100	•		•			•					-	-	•	1		BA4017.00.01
-	4.0	100	•		•			•					-	-	•	2		BA4017.00.02
BA2005.00.00	4.0	100	•					•	•				•	-	•	-		BA2007.00.00
BA2005.00.01	4.0	100	•					•	•				•	-	•	1		BA2007.00.01
BA2005.00.02	4.0	100	•					•	•				•	-	•	2		BA2007.00.02
-	4.0	100	•					•	•				-	-	•	-		BA2017.00.00
-	4.0	100	•					•	•				-	-	•	1		BA2017.00.01
-	4.0	100	•					•	•				-	-	•	2		BA2017.00.02
BA4105.00.00	4.0	100		•	•			•					-	-	•	-		BA4107.00.00
BA4105.00.01	4.0	100		•	•			•					-	-	•	1		BA4107.00.01
BA4105.00.02	4.0	100		•	•			•					-	-	•	2		BA4107.00.02
BA2105.00.00	4.0	100		•				•	•				-	-	•	-		BA2107.00.00
BA2105.00.01	4.0	100		•				•	•				-	-	•	1		BA2107.00.01
BA2105.00.02	4.0	100		•				•	•				-	-	•	2		BA2107.00.02
BA6135.00.00	4.0	100	•			•						•	•	-	•	-		BA6037.00.00
BA6135.00.01	4.0	100	•			•						•	•	-	•	1		BA6037.00.01
BA6135.00.02	4.0	100	•			•						•	•	-	•	2		BA6037.00.02
-	4.0	100	•			•				•			•	-	•	-		BA6017.00.00
-	4.0	100	•			•				•			•	-	•	1		BA6017.00.01
-	4.0	100	•			•				•			•	-	•	2		BA6017.00.02
-	4.0	100	•			•				•			•	-	•	-		BA6027.00.00
-	4.0	100	•			•				•			•	-	•	1		BA6027.00.01
-	4.0	100	•			•				•			•	-	•	2		BA6027.00.02
-	4.0	100		•		•						•	•	-	•	-		BA6137.00.00
-	4.0	100		•		•						•	•	-	•	1		BA6137.00.01
-	4.0	100		•		•						•	•	-	•	2		BA6137.00.02
-	4.0	100	•				•					•	•	-	•	-		BA7037.00.00
-	4.0	100	•				•					•	•	-	•	1		BA7037.00.01
-	4.0	100	•				•					•	•	-	•	2		BA7037.00.02
BA6155.00.00	4.0	100	•			•							•	-	•	-	split range 5..1Vdc	BA6057.00.00
BA6155.00.01	4.0	100	•			•							•	-	•	1	split range 5..1Vdc	BA6057.00.01
BA6155.00.02	4.0	100	•			•							•	-	•	2	split range 5..1Vdc	BA6057.00.02
BA6165.00.00	4.0	100	•			•							•	-	•	-	split range 6..10Vdc	BA6067.00.00
BA6165.00.01	4.0	100	•			•							•	-	•	1	split range 6..10Vdc	BA6067.00.01
BA6165.00.02	4.0	100	•			•							•	-	•	2	split range 6..10Vdc	BA6067.00.02
BA9105.00.00	4.0	100	•			•							•	-	•	-	ECO >1,5Vdc 'On'	BA9007.00.00
BA9105.00.01	4.0	100	•			•							•	-	•	1	ECO >1,5Vdc 'On'	BA9007.00.01
BA9105.00.02	4.0	100	•			•							•	-	•	2	ECO >1,5Vdc 'On'	BA9007.00.02

Note:

1. the actuator stroke is the full stroke without taking into account the (typical) 0.5mm loss due to the valve adapter mounting
2. all actuator types mentioned above are without valve adapter (to be ordered separately)

FO: with first open function    FC: fixed cable    CON: cable with connector