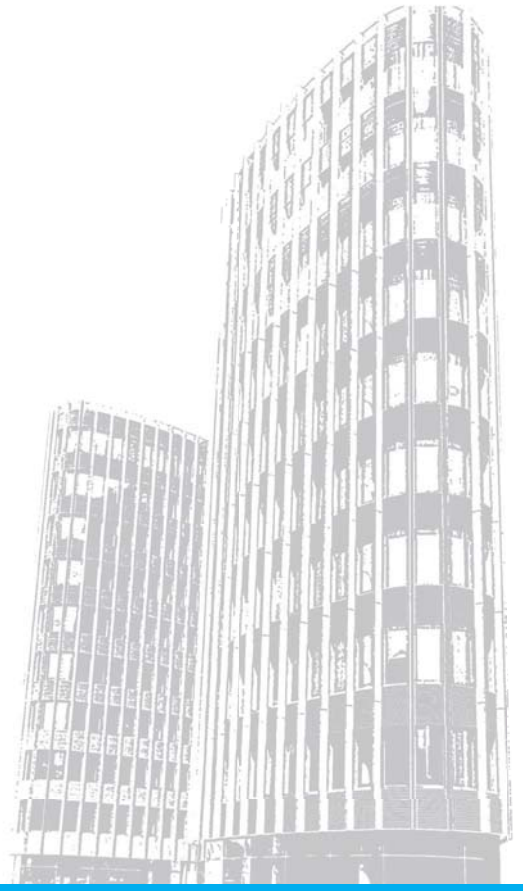
Möhlenhoff



Building Management Systems

OEM ACTUATORS

Technical Data

→ www.moehlenhoff.de

OEM Actuator 5 – Building management systems

More efficient, more compact, more diverse

Highlights

- Robust, long lifetime
- Multitude of varieties, thermal and motor-driven
- Low power consumption
- Easy plug-in installation and commissioning
- IP54
- LCD display
- Actuating forces from 100 to 200 N
- Connector compatibility

Specifications at a glance

Thermal actuators

- Modern OEM design
- Variants A, AST, APR, APP, APV, APO, 4, 5, 6.5 mm in NC and NO
- Actuating forces from 100 to 125 N
- Guaranteed strokes over the complete lifetime
- Low power consumption
- Valve adapter system
- Simple plug-in installation
- IP54 for 360° installation position
- Patented 100 % protection in case of leaking valves
- First Open function (NC)
- Function indication and adaptation check on the valve
- Alignment aid on the valve
- Noiseless and maintenance-free
- Compact size, small dimensions
- Antitheft device for 6.5 mm variants

Motoric Valve Drive

- Modern OEM design
- Variants: M3P, MPR, MPV, MPO, up to 8.5 mm
- Actuating forces from 100, 125, 150, 200 N
- Robust and long lifetime due to step motor technology = High functional safety and long expected service life
- Low power consumption
- Valve adapter system
- Simple plug-in installation
- Hermetically sealed housing: IP54 for 360° installation position and thus 100 % protection in case of leaking valves
- LCD function display (optional: backlit Display) for position and applied control voltage
- Low-noise and maintenance-free
- Antitheft device

Customer Specific Solutions

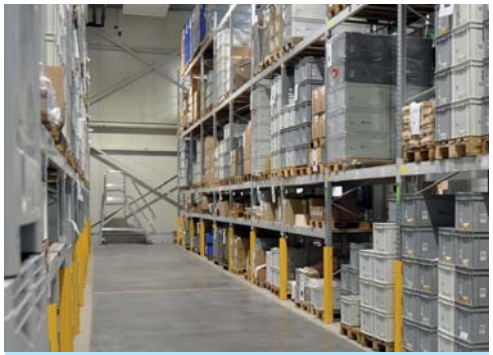
Your Logo
Standard – laser imprint (grey scale)
Plain- or multicolored on request

All-round Function Display
Ring i.e. in the same colour as your logo

Housing Colour
On your special request

Housing Form
Do you look for your own exclusive design?

Packaging
Single packing in covering box, bundled in plastic bags packed in box or just as you want it



Labelling
Tell us your requirements

Article Numbers
Imprint of your article number

Barcode
Your packaging, your barcode

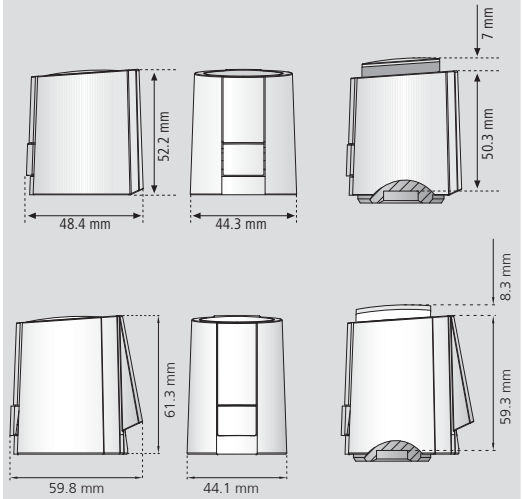
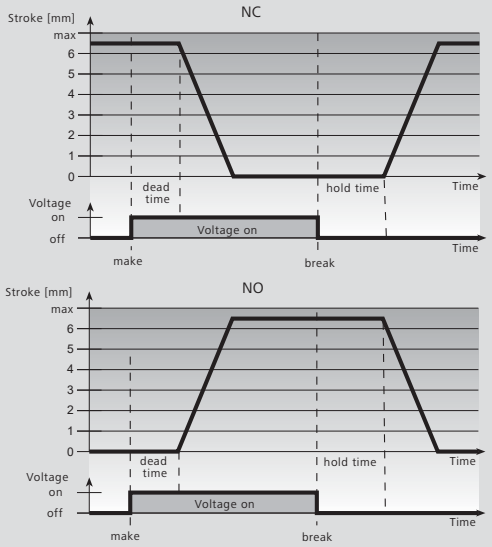
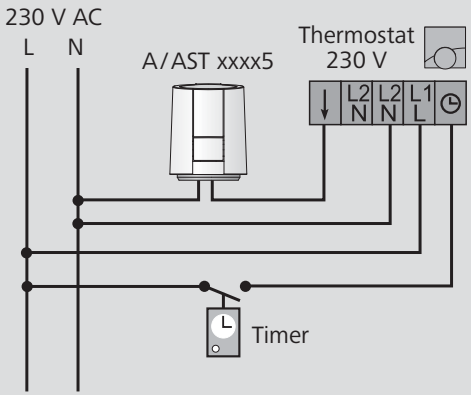
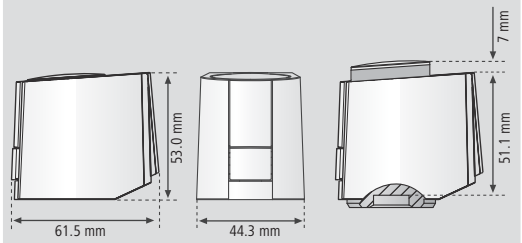
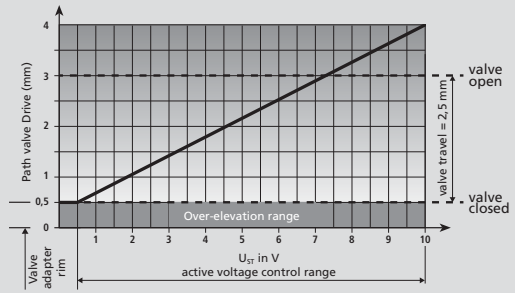
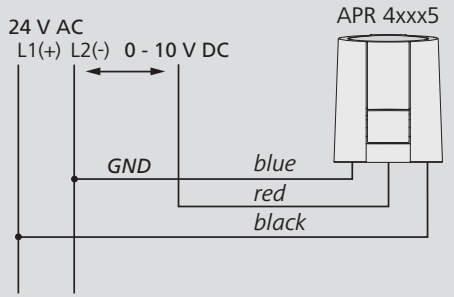
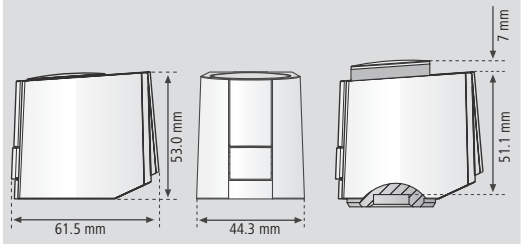
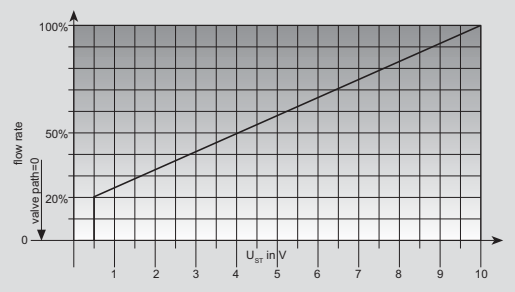
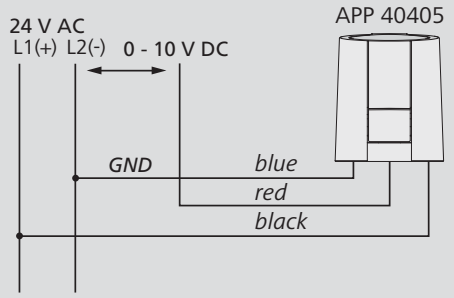
Thermal actuators – Overview

Type	A/AST XXXX5	APR 4xxx5	APP 40405	APV 4xxx5	APO 4x625
	Standard on/off in NO and NC	Stroke-proportional 0–10 V	Flow proportional 0–10 V	Stroke-proportional 0–10 V with valve stroke recognition	Stroke-proportional 0–10 V with valve stroke recog. and back channel
Function	NC/NO	NC	NC	NC/NO	NC/NO
Stroke	4/5/6.5 mm	4/5/6.5 mm	4 mm	NC: 5/6.5 mm NO: 5/6.5 mm	6,5 mm
Operating conditions 230 V	230 V AC, +10%...–10%, 50/60 Hz	–			
Inrush current 230 V	< 550 mA during max. 100 ms	–			
Operating voltage 24 V AC variant	–	24 V AC, -10%...+20%, 50…60 Hz	24 V AC, -10%...+20%, 50…60 Hz	24 V AC, -10%...+20%, 50…60 Hz	–
Operating voltage 24 V DC variant	–	24 V DC, -10%...+20%	–	24 V DC, -10%...+20%	–
Operating voltage 24 V AC/DC variant	24 V AC/DC, +20%...10% 0…60 Hz	–	–	–	24 V AC/DC, -10%...+20%, 0…60 Hz
Control voltage		0–10 V			
Inrush current 24 V	< 300 mA for max. 2 min.	< 320 mA for max. 2 min.			
Operating power 4/5/6.5mm	1 W	1 / 1.2 W	1 W	1/1.2 W	1.2 W
Min. running times 4/5/6.5mm	approx. 3.5 min/4 min/5 min	approx. 3.5 min/4 min/5 min	approx. 3.5 min	approx. 3.5 min/4 min/5 min	approx. 5 min
Actuation force	100/125 N	100 / 125 N	100 N	100/125 N	125 N
Fluid temperature	0 to +100 °C				
Storage temperature	–25 °C to +60 °C				
Ambient temperature	0 to +60 °C				
Protection type/protection class	IP 54/II or III				
CE conformity according to	EN 60730				
Casing material/colour	Polyamide/signal white (RAL 9003)				
Connection line/colour	2 x 0.75 mm² PVC/light grey (RAL 7035)	3 x 0.22 mm² PVC, white			4 x 0.22 mm² PVC, white
Line length	1 m (other lengths on request)				
Weight with connection cable 1 m	100 g	111 g			120 g
Surge strength according to EN 60730-1 (230 V)	230 V variant: 2.5 kV				
Customer-specific valve curve over 8 reference points	–	optional	–	optional	optional

Motoric Valve Drive – Overview

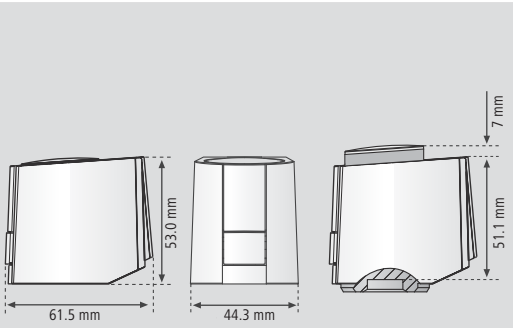
Type	MPR 468x5	MPV 468x5	MPO 468x5	M3P 468x5	M3P 278x5
	Stroke-Proportional 0–10 V	Stroke-Proportional 0–10 V with valve stroke recognition	Stroke-Proportional 0–10 V with valve stroke recogn. and back channel	3-point actuator with limit switching	3-point actuator with limit switching
LC display	For running direction, position, control voltage and errors			–	–
LED signalling	green, red			green, red, orange	
Manual setting	with a screwdriver 0.3 x 2 mm				
Operating voltage	24 V AC, –10…+20 %, 50 - 60 Hz 24 V DC, –20…+20 %				230 V AC –10…+10 %, 50…60 Hz
Control voltage	0–10 V/PWM			–	–
Power consumption	<110 mA				< 20 mA
Standby current	10 mA				< 5 mA
Back channel output voltage	–	–	0–10 V	–	–
Back channel output current	–	–	1 mA	–	–
Variants	Control voltage, stroke, actuating force, runtime			Actuating force, runtime	
Operating power	2.6 VA / 1.4 W				3.5 VA
Stroke	8.5 mm (custom in factory 2…8.5 mm)			8.5 mm	
Running times (4 mm/5 mm)	30 s/mm (optional in factory 15 s/mm)				
Actuation force	Standard 100 N, optional 125, 150, 200 N -20% / +40%				
Fluid temperature	0 to +100 °C				
Storage temperature	–25 °C to +70 °C				
Ambient temperature	0 to +50 °C				
Protection type/protection class	IP 54/III				IP 54/II
CE conformity according to	EN 60730				
Casing material/colour	Polyamide signal white (RAL 9003)				
Casing cover/colour	Polycarbonate/transparent				
Connection line/colour	Plug-in 3 x 0.22 mm² PVC/white		Plug-in 4 x 0.22 mm² PVC/white	Plug-in 3 x 0.22 mm² PVC/white	Fixed 3 x 0.75 mm² PVC, white
Line length	1 m (other lengths on request)				
Weight with connection cable (1 m)	155 g				200 g
Surge strength according to EN 60730-1 (230 V)					< 2.5 kV
Customer-specific valve curve over 8 reference points	optional	optional	optional	–	–

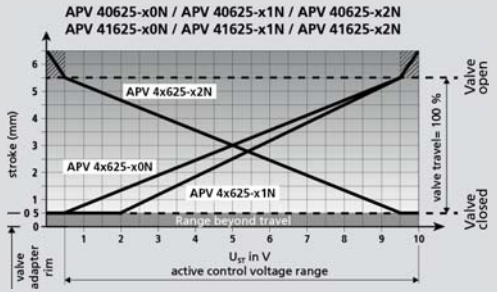
Thermal actuators – Technical data

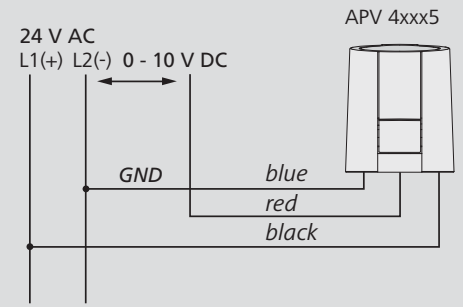
Description	Dimensions	Function diagrams	Electrical connection
A/AST xxxx5: • On/off actuator for a statical or PWM activation via 2-point or P band controller. • Robust, noiseless actuator. • Superb in power consumption, longevity, and functionality. • AST xx626 with antitheft function **Alternative products:** A xx405, AST xx405, SD x0315, M3P xx845			
APR 4xxx5: • The applied control voltage is proportionally converted to a stroke. • Dynamic closing point recognition • Variant in DC **Alternative products:** MPR 46825			
APP 40405: • The applied control voltage is proportionally converted to a flow. • The actuator pulses according to a patented PWM procedure. • Dynamic closing point recognition • Variant in DC			

APV 4xxx5:

- The applied control voltage is proportionally converted to a stroke taking into account the valve path.
- The control voltage is dynamically converted to the measured valve path.
- Dynamic closing point and valve stroke recognition
- Note: initialisation process to determine opening and closing point of valve takes 20 minutes.
- Variant in DC, APV 4x625 with antitheft function
- **Alternative products:** MPV 46825



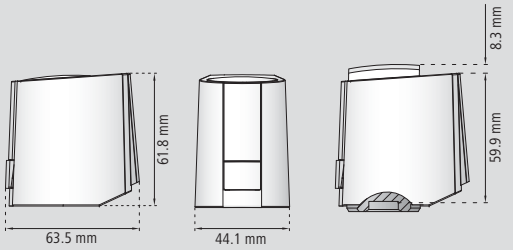




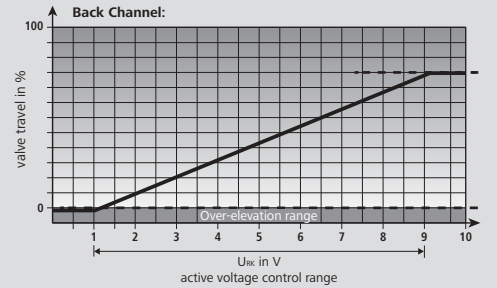
APO 4x625:

- The applied control voltage is proportionally converted to a stroke taking into account the valve path.
- The control voltage is dynamically converted to the measured valve path.
- Dynamic closing point and valve stroke recognition
- The valve position is fed back to the superordinate BMS via the 4th contact.
- With antitheft function

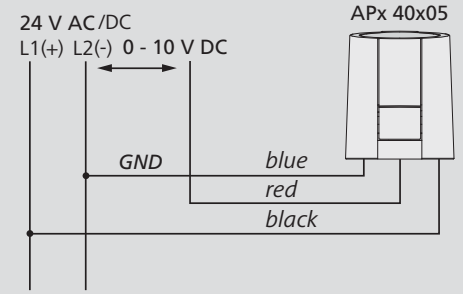
Alternative products: MPO 46825

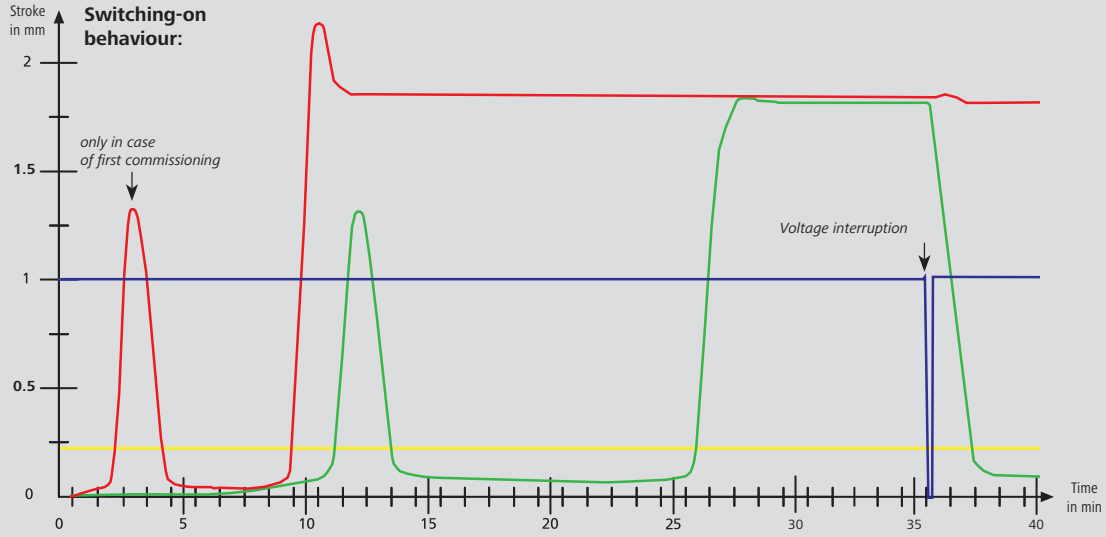


stroke diagram like APV



Voltage	Description
< 0.5 V	No function or no contacting
1 V to 9 V	Voltage emitted proportionally to the stroke
1 V	Corresponds to a closed valve (NC unheated, NO heated)
9 V	Corresponds to an open valve (NC heated, NO unheated)
> 9.5 V	Internal error
5 V	Approximately 5 V are present at the back channel during initialization





Comparison:
Up to 2009 / as of 2009:

First commissioning and voltage interruption

= new DDC-MR

= old DDC-optical

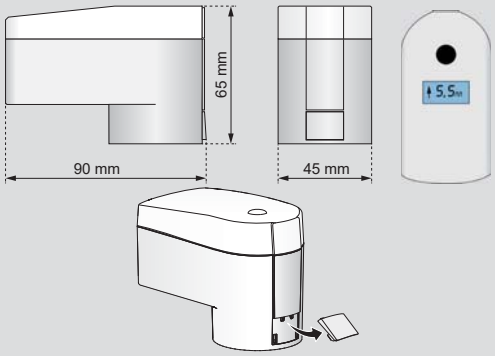
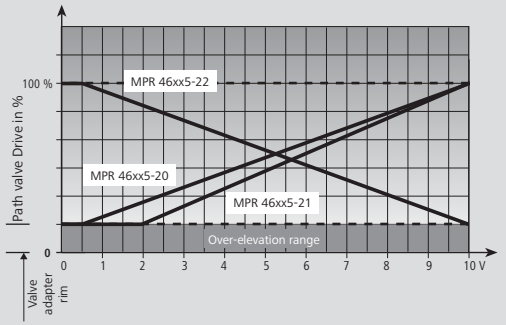
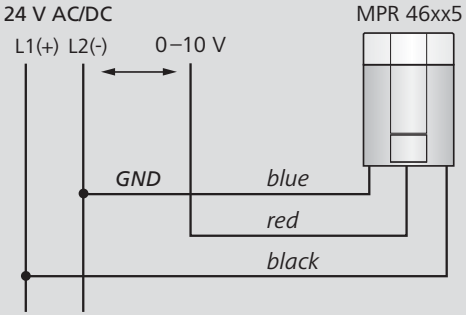
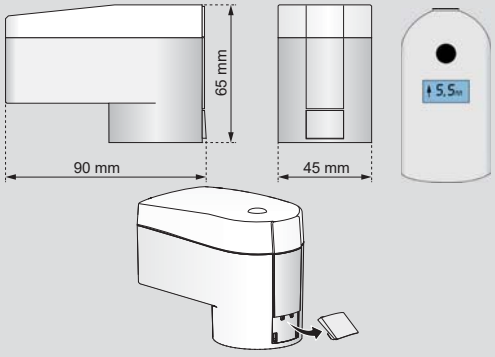
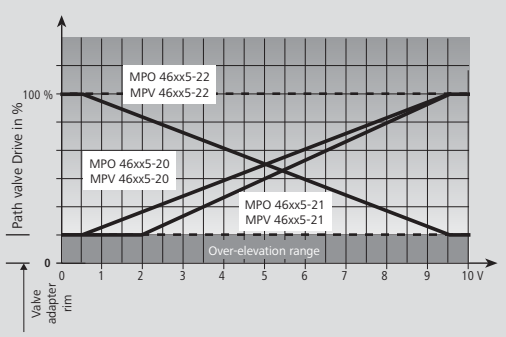
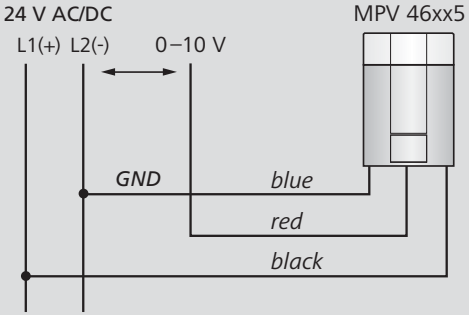
= voltage supply

= control voltage 5 V

Unique commissioning:

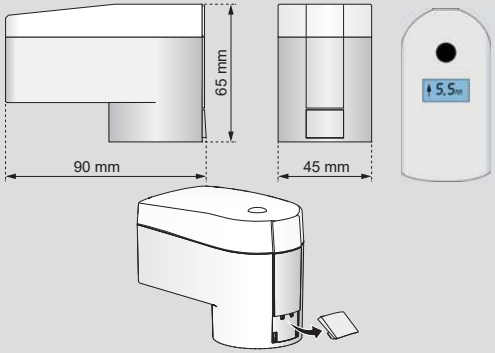
- After switching on, the FO spring is unlocked, the closing point (APR, APP) or the closing and opening point (APV,APO) is detected and saved in the internal memory.
- During running operation, the values are updated dynamically and saved in memory if new values are present.
- After a new start the actuator immediately switches to regular operation, taking the saved valve data from its own memory.
- If the conditions at the valve change, the actuator only requires a few hours for determining the new valve date.
- This process can be accelerated by opening the actuator completely for 30 minutes and afterwards closing it completely for another 30 minutes.

Motoric Valve Drive – Technical data

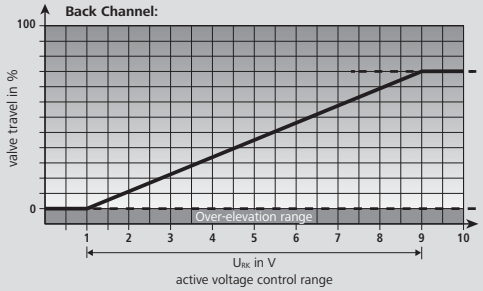
Description	Dimensions	Function diagrams	Electrical connection
MPR 46xx5 • The applied control voltage is proportionally converted to a stroke. • Dynamic closing point recognition • LC display with indication: Actuation position and applied control voltage			
MPV 46xx5 • The applied control voltage is proportionally converted to a stroke taking into account the valve path. • Closing point and valve stroke recognition • LC display with indication: Valve position and applied control voltage, error indication if necessary.			

MPO 46xx5

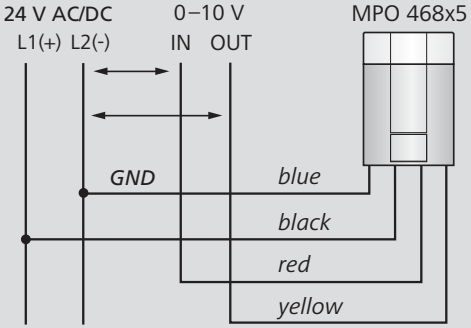
- The applied control voltage is proportionally converted to a stroke taking into account the valve path, like MPV.
- Closing point and valve stroke recognition
- The valve position is fed back to the superordinate BMS via the 4th contact.
- LC display with indication: Valve position and applied control voltage.



stroke diagram like MPV

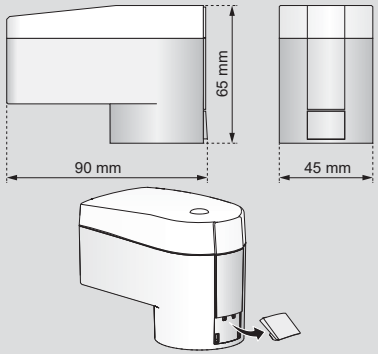


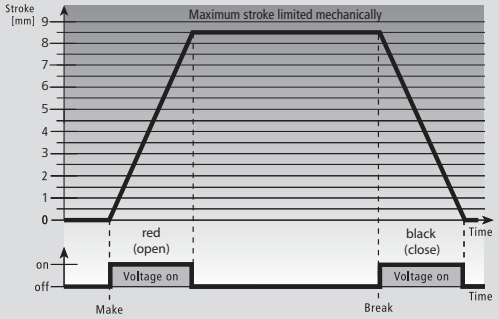
Voltage	Description
< 0.5 V	No function or no contacting
1 V to 9 V	Voltage emitted proportionally to the stroke
1 V	Corresponds to a closed valve (NC unheated, NO heated)
9 V	Corresponds to an open valve (NC heated, NO unheated)
> 9.5 V	Internal error
5 V	Approximately 5 V are present at the back channel during initialization

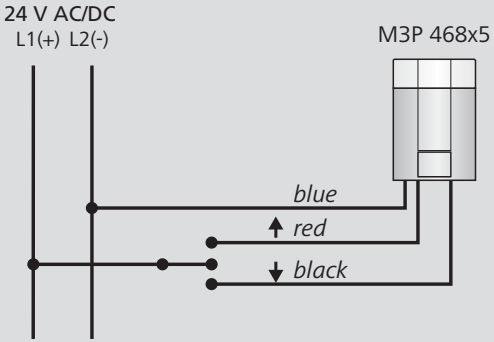


M3P 468x5

- Valve drive with 3-wire cable, one ground wire, one wire for opening and one for closing the valve.
- Running time 30 s/mm. Drives as long as voltage is applied and switches off at the limit stops after timeout.
- LED display:
  Grün: Ventildruckplatte fährt ein
  Orange: Ventildruckplatte fährt aus

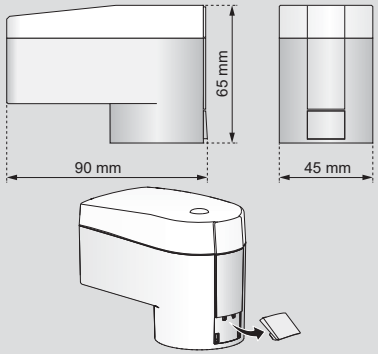


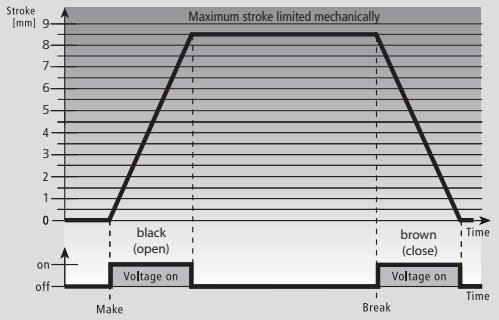


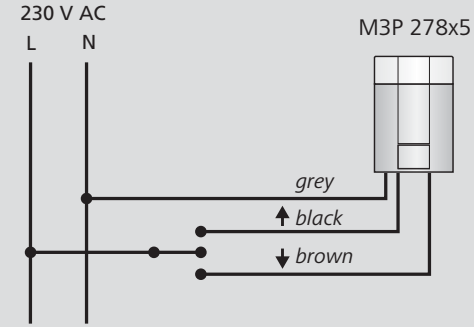


M3P 278x5

- Valve drive for 2- und 3-point operation with a fixed 3-wire cable, one ground wire, one wire for opening and one for closing the valve.
- Drives as long as voltage is applied and switches off at the limit stops after timeout.
- LED display:
  Grün: Ventildruckplatte fährt ein
  Orange: Ventildruckplatte fährt aus



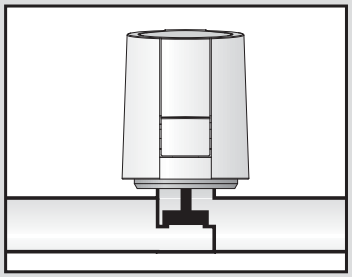


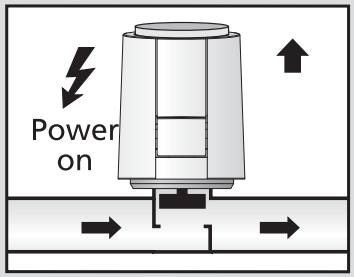


Thermal actuators – Installation

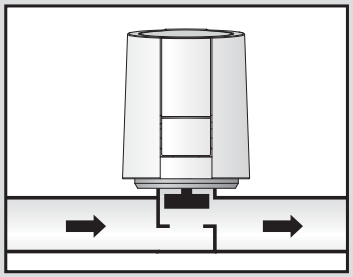
Function Display

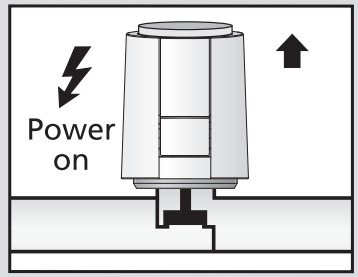
The function display of the OEM-Actuator (all-around display) allows identifying the operating condition (valve open or closed) at a glance.





In case of the NC version, an extended function display shows opening of the valve.

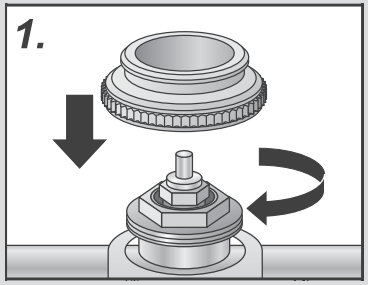




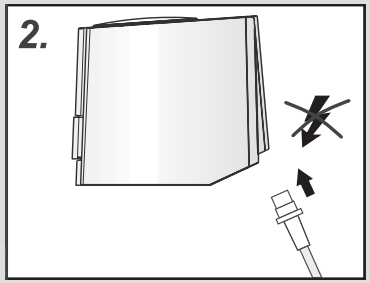
In case of the NO version, an extended function display shows that the valve is closed.

Installation with valve adapter

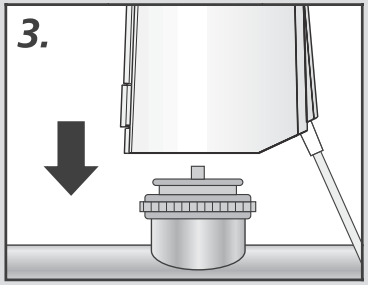
The valve adapter assortment guarantees a perfect match of the actuator to almost all valve bottoms and heating circuit distributors available on the market.
The OEM Actuator 5 is simply plugged on to the valve adapter previously installed manually.



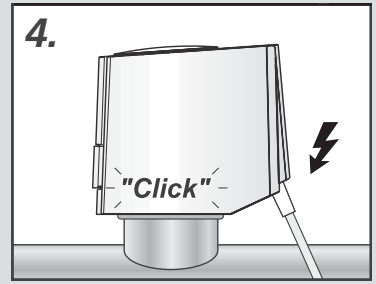
Screw the adapter manually onto the valve.



Connect the line to the OEM Actuator.

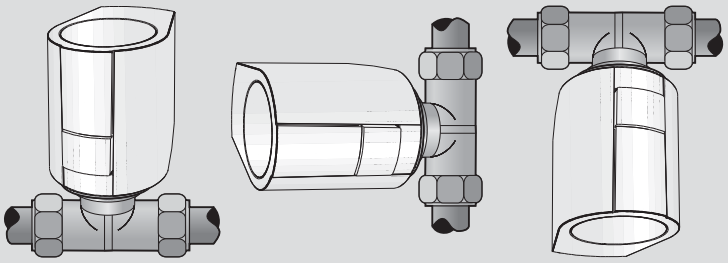


Position the OEM Actuator manually in vertical position to the valve adapter.



Latch the OEM Actuator to the valve adapter by manually applied vertical pressure; this can be done noiselessly and without any problems.

Installation position

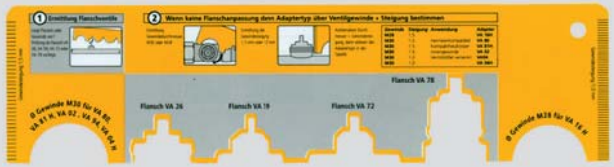


- The OEM Actuator must be installed preferably in vertical or horizontal installation position.
- For "overhead" installation special circumstances (e. g. drainwater) can reduce the lifetime of the actuator.

Valve adapter system – adaptation check

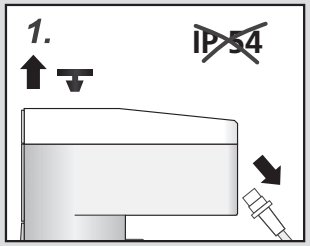
When adapted correctly, actuator's function cap will be 0.5 to 1 mm above housing. If over elevation is too low, function cap aligns to the housing. If over elevation is too high, coloured area of function cap is visible.

Valve adapter gauge available upon request.

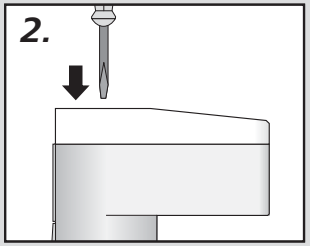


Motoric Valve Drive – Installation

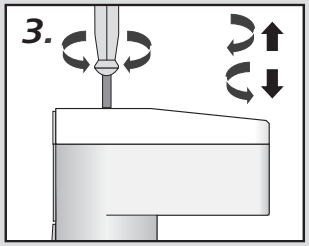
Manual setting with a screwdriver 0.2 x 2 mm



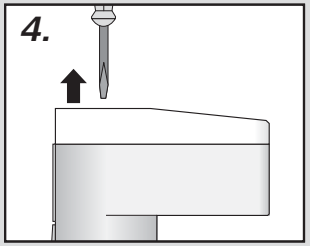
Remove the connection line and the protector plug.



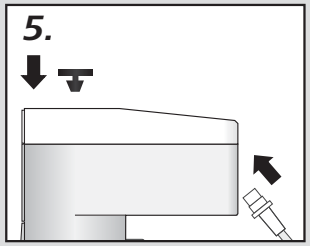
Introduce a screwdriver 0.3 x 2 mm into the manual stroke setting device.



Turn to the right or left for extracting or retracting, respectively.



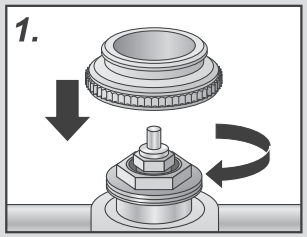
Remove the screwdriver 0.3 x 2 mm after reaching the desired position.



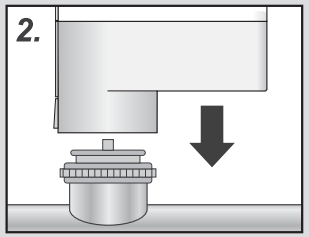
Install the protector plug and connect the connection line.

Installation with valve adapter

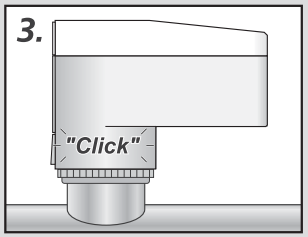
The valve adapter assortment guarantees a perfect mechanical match of the actuator to almost all valve bottoms and heating circuit distributors available on the market. The OEM Motoric Valve Drive is simply plugged onto the valve adapter previously installed manually. The fact that the valve pressure plate is retracted in factory, allows for easy installation.



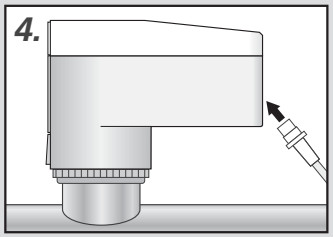
Screw the valve adapter manually onto the valve.



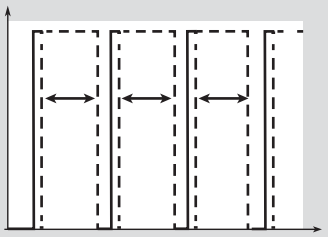
Position the OEM Actuator manually in vertical position to the valve adapter.



Simply latch the OEM Actuator to the valve adapter manually by applying vertical pressure; a clicking sound can be heard.

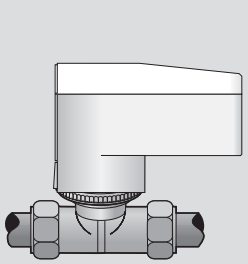


Connect the connection line to the OEM Actuator.

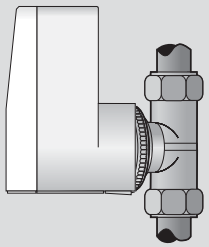


0–10 V - variant:
Alternatively, the OEM Actuator can be driven with a PWM signal.
(For more information see data sheet.)

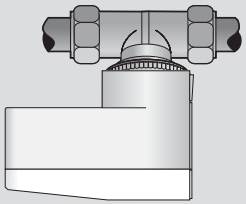
Installation position



vertical



horizontal



“overhead”

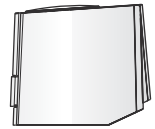
- The OEM Motoric Valve Drive can be operated in every installation position.
- The horizontal or vertical installation position should be preferred.
- In case of “overhead” installation, special circumstances (e. g. drain water) can reduce the lifetime of the actuator.

Actuators on / off 5...6.5 mm

24 V variants	Stroke	Control direction	Voltage	Uctrl	Closing force	Scope of supply
AST 40505-00N	5.0 mm	NC	AC/DC	–	100 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC H03VV 2 x 0.75 mm² • Installation instruction in 12 languages
AST 41505-10N	5.0 mm	NO	AC/DC	–	100 N	
A 40625-00N	6.5 mm	NC	AC/DC	–	125 N	
A 41625-10N	6.5 mm	NO	AC/DC	–	125 N	
AST 40625-00N	6.5 mm	NC	AC/DC	–	125 N	
AST 41625-10N	6.5 mm	NO	AC/DC	–	125 N	

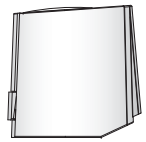
230 V variants	Stroke	Control direction	Voltage	Uctrl	Closing force	Scope of supply
AST 20505-00N	5.0 mm	NC	AC	–	100 N	• OEM Actuator 5: 230 V in individual packaging • 1 m- connection line with connector, white, PVC H03VV 2 x 0.75 mm² • Installation instruction in 12 languages
AST 21505-10N	5.0 mm	NO	AC	–	100 N	
A 20625-00N	6.5 mm	NC	AC	–	125 N	
A 21625-10N	6.5 mm	NO	AC	–	125 N	
AST 20625-00N	6.5 mm	NC	AC	–	125 N	
AST 21625-10N	6.5 mm	NO	AC	–	125 N	

Actuators 0 – 10 V 4…5 mm



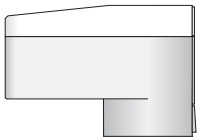
24 V variants 0 – 10 V	Stroke	Control direction	Voltage	Uctrl	Closing force	Scope of supply
APR 40405-00N	4.0 mm	NC	AC	0 – 10 V	100 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
APR 40405-01N	4.0 mm	NC	AC	2 – 10 V	100 N	
APR 40405-02N	4.0 mm	NC	AC	10 – 0 V	100 N	
APR 42405-02N	4.0 mm	NC	DC	0 – 10 V	100 N	
APP 40405-00N	4.0 mm	NC	AC	0 – 10 V	100 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
APP 40405-01N	4.0 mm	NC	AC	2 – 10 V	100 N	
APV 41405-10N	4.0 mm	NO	AC	0 – 10 V	100 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
APV 43405-10N	4.0 mm	NO	DC	0 – 10 V	100 N	
APR 40505-00N	5.0 mm	NC	AC	0 – 10 V	100 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
APR 40505-01N	5.0 mm	NC	AC	2 – 10 V	100 N	
APR 40505-02N	5.0 mm	NC	AC	10 – 0 V	100 N	
APR 42505-00N	5.0 mm	NC	DC	0 – 10 V	100 N	
APV 40505-00N	5.0 mm	NC	AC	0 – 10 V	100 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
APV 40505-01N	5.0 mm	NC	AC	2 – 10 V	100 N	
APV 40505-02N	5.0 mm	NC	AC	10 – 0 V	100 N	
APV 42505-00N	5.0 mm	NC	DC	0 – 10 V	100 N	

Actuators 0 – 10 V 6.5 mm



24 V variants 0 – 10 V	Stroke	Control direction	Voltage	Control voltage	U_{FB}	Closing force	Scope of supply
APR 40625-20N	6.5 mm	NC	AC	0 – 10 V	–	125 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
APR 40625-21N	6.5 mm	NC	AC	2 – 10 V	–	125 N	
APR 40625-22N	6.5 mm	NC	AC	10 – 0 V	–	125 N	
APV 40625-20N	6.5 mm	NC	AC	0 – 10 V	–	125 N	
APV 40625-21N	6.5 mm	NC	AC	2 – 10 V	–	125 N	
APV 40625-22N	6.5 mm	NC	AC	10 – 0 V	–	125 N	
APV 41625-30N	6.5 mm	NO	AC	0 – 10 V	–	125 N	
APV 41625-31N	6.5 mm	NO	AC	2 – 10 V	–	125 N	
APV 41625-32N	6.5 mm	NO	AC	10 – 0 V	–	125 N	
APV 42625-20N	6.5 mm	NC	DC	0 – 10 V	–	125 N	
APV 43625-30N	6.5 mm	NO	DC	0 – 10 V	–	125 N	
APO 44625-20N	6.5 mm	NC	AC/DC	0 – 10 V	0 – 10 V	125 N	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line with connector, white, PVC 4 x 0.22 mm² • Installation instruction in 12 languages
APO 44625-21N	6.5 mm	NC	AC/DC	2 – 10 V	0 – 10 V	125 N	
APO 44625-22N	6.5 mm	NC	AC/DC	10 – 0 V	0 – 10 V	125 N	
APO 45625-30N	6.5 mm	NO	AC/DC	0 – 10 V	0 – 10 V	125 N	
APO 45625-31N	6.5 mm	NO	AC/DC	2 – 10 V	0 – 10 V	125 N	
APO 45625-32N	6.5 mm	NO	AC/DC	10 – 0 V	0 – 10 V	125 N	

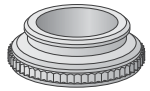
Motoric Valve Drive



24 V variants 0–10 V	Stroke	Voltage	Running time	Stroke force	Control voltage	U_{FB}	Scope of supply
MPR 46xx5-x0N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	0–10 V	–	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages • Compatible with thermal connection cables
MPR 46xx5-x1N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	2–10 V	–	
MPR 46xx5-x2N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	10–0 V	–	
MPV 46xx5-x0N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	0–10 V	–	
MPV 46xx5-x1N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	2–10 V	–	
MPV 46x5-x2N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	10–0 V	–	
MPO 46xx5-x0N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	0–10 V	0–10 V	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line, white, PVC 4 x 0.22 mm² • Installation instruction in 12 languages • Compatible with thermal connection cables
MPO 46xx5-x1N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	2–10 V	0–10 V	
MPO 46xx5-x2N	2–8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	10–0 V	0–10 V	
3-point 24 V							
M3P 468x5-x0N	8.5 mm	AC/DC	15, **30** s/mm	**100**, 125, 150, 200 N	–	–	• OEM Actuator 5: 24 V in individual packaging • 1 m connection line, white, PVC 3 x 0.22 mm² • Installation instruction in 12 languages
3-point 230 V							
M3P 278x5-x0N	8.5 mm	AC	15, **30** s/mm	**100**, 125, 150, 200 N	–	–	• OEM Actuator 5: 230 V in individual packaging with 1 m connection line, light grey, PVC H05VV-F 3 x 0.75 mm² • Installation instruction in 12 languages

Mxx xxx05: 100 N, Mxx xxx25: 125 N, Mxx xxx35: 150 N, Mxx xxx45: 200 N
Mxx xxxxx-2x = 30 s/mm, Mxx xxxxx-3x = 15 s/mm

Valve adapter overview



Type	Thread size	Low design	High design	Locking dimension in mm
VA 10	M 30 x 1.5	VA 10	VA 10 H	11.00
VA 13	M 30 x 1.5		VA 13 H	14.50
VA 16	M 28 x 1.5	VA 16	VA 16 H	8.25
VA 17	M 28 x 1.5	VA 17		11.50
VA 18	M 30 x 1.5	VA 18		10.50
VA 19	M 30 x 1.5		VA 19 H	6.50
VA 20	M 30 x 1.5		VA 20 H	7.00
VA 21	M 30 x 1.5		VA 21 H	5.50
VA 26	M 30 x 1.5	VA 26	VA 26 H	4.20
VA 28	M 30 x 1.5	VA 28		11.50
VA 30	M 30 x 1.5		VA 30 H	9.00
VA 32	M 28 x 1.5	VA 32	VA 30 HK	7.75
VA 33	M 28 x 1.5	VA 33	VA 33 HK	10.00
VA 34	M 26 x 1.5		VA 34 H	10.50
VA 35	M 26 x 1.5		VA 35 H	18.75
VA 39	M 30 x 1.0	VA 39	VA 39 H	10.50
VA 41	M 30 x 1.5	VA 41	VA 41 H	9.50
VA 50	M 30 x 1.5	VA 50	VA 50 H	10.00

Many designs are available in the variants H/K and protective cover

Type	Thread size	Low design	High design	Locking dimension in mm
VA 53	M 28 x 1.5		VA 53 H	11.00
VA 54	M 28 x 1.5	VA 54	VA 54 H	9.00
VA 55	M 28 x 1.5		VA 55 H	11.50
VA 57	M 28 x 1.0		VA 57 H	14.20
VA 59	M 30 x 1.5	VA 59	VA 59 H	8.00
VA 62	M 30 x 1.5		VA 62 H	8.50
VA 63	M 30 x 1.5	VA 63	VA 63 H	8.25
VA 66	M 30 x 1.5	VA 66		12.50
VA 70	M 28 x 1.5		VA 70 H	7.00
VA 76	M 30 x 1.5	VA 76		20.00
VA 78	Flange		VA 78	28.80
VA 79	M 30 x 1.5		VA 79	24.50
VA 80	M 30 x 1.5	VA 80	VA 80 H	10.50
VA 81	M 30 x 1.5		VA 81 H	10.75
VA 90	M 30 x 1.5	VA 90	VA 90 H	11.50
VA 94	M 30 x 1.0		VA 94	-5.50
VA 95	M 30 x 1.5		VA 95 H	13.00

Special adaptations on request

Your OEM partner

Möhlenhoff GmbH has been an established player on the international market for more than 3 decades. The company is a reliable, expert OEM that excels. These factors, combined with innovative ideas and a spirit of fairness in partnerships, have made it a very successful player worldwide for years. As an OEM, Möhlenhoff GmbH supplies products and complete systems for heating, ventilation and air-conditioning systems. As a specialist in control components and systems, the company offers its expertise to manufacturers worldwide. Möhlenhoff GmbH is a global market leader in thermal valve drives.

Möhlenhoff

Möhlenhoff GmbH
Museumstrasse 54 a
38229 Salzgitter, Germany
Phone: +49 53 41 / 84 75-0
Fax: +49 53 41 / 84 75-999

contact@moehlenhoff.de
www.moehlenhoff.com

129958.1803