Product Data



Aktor R Motorised Rotary Actuator for Optibal W6 Six-Way Ball Valve





Aktor R with Optibal W6 six-way ball valve Six-way ball valve not included in the scope of delivery.

The motorised rotary actuator is used to position the Optibal W6 six-way ball valve. The actuator is quiet in operation and has a low power consumption. The rotary movement of the actuator is visible through the position indicator on the rotary knob. Manual override is possible via the rotary knob in a de-energised state with the gearbox disengaged.

The actuator is mounted to the six-way ball valve with a union nut. The electrical connection is made either directly or via a field module to a building management system (BMS).

Functions

- Switching between heating and cooling via on/off control signal
- Limiting the heating and cooling circuit via proportional control signal
- Shutoff
- Display of the current position

Features

- + Modulating or on/off control
- + With position feedback
- + One variant for all Optibal W6

Product Details

Technical Data

Operating voltage / Power	24 V AC +10 %: 6 VA or					
consumption	24 V DC ±10 %, 2.6 W					
Control signal	010 V DC or on/off (via 24 V forced control)					
Feedback	010 V DC (control via 010 V)					
Connection	Connecting cable 1.5 m long, 5 x 0.25 mm², strain relief on the housing					
Rotation angle	90°					
Torque	5 Nm					
Positioning time	60 seconds					
Position indicator	On the rotary knob					
Manual override	Via the rotary knob in a de-energised state with the gearbox disengaged					
Protection class						
Protection type	IP54					
Housing	Plastic, white and grey					
Installation position	Vertically above the six-way ball valve, up to 90° in any direction					
Maintenance	Maintenance-free					
Weight	0.5 kg					
Dimensions	78 x 110 x 133 (W x H x D)					
Operating temperature	0 to 55 °C (actuator)					
Medium temperature	0 to 90 °C (at the six-way ball valve)					

Control and limit voltages

Action	Mode	Limit voltage	Result		
Switching in on/off mode	Cooling	0 V	The full flow of the system connections 1 and 3 of the Optibal W6 is switched to the unit connections A and B		
	Heating	10 V or 24 V	The full flow of the system connections 2 and 4 of the Optibal W6 is switched to the unit connections A and B		
Limitation in modulating mode	Cooling	04 V	The system connections 1 and 3 of the Optibal W6 are switched linearly decreasing to the unit connections A and B		
	Shutoff	46 V	The unit connections A and B of the Optibal W6 are closed		
	Heating	610 V	The system connections 2 and 4 of the Optibal W6 are switched linearly increasing to the unit connections A and B		
Position feedback	_	010 V	0 V – Actuator is in 100% cooling position 10 V – Actuator is in 100% heating position		

Transport and storage

Temperature range	050 °C			
Relative air humidity	Max. 85 %			
Particles	Store in a dry and dust-protected place			
Mechanical influences	Protected from mechanical shock			
Weather influences	Do not store outdoors and protect from sunlight			
Chemical influences	Do not store together with aggressive media			

Electrical Connection

Modulating control				On/off control			
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1	BU (blue)	0 V AC/DC	Neutral conductor / Ground	1	BU (blue)	0 V AC/DC	Neutral conductor / Ground
2	BN (brown)	24 V AC/DC	Power supply	2	BN (brown)	24 V AC/DC	Power supply
3	GY (grey)	010V DC	Modulating control signal	3	GY (grey)	24 V AC/DC	On/off control signal
4	YE (yellow)	0 V DC	Ground	4	YE (yellow)		Not used
5	GN (green)	010 V DC	Position feedback	5	GN (green)		Not used

Dimensions





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