

Blocking unit

for RTK control valves

AT 4830

Range of Application

For emergency-closing of control valve with electrical actuators in case of power failure.

According to VVA-93 a blocking valve shall be used on primary side of heat exchanger if the media temperature is $> 120^{\circ}\text{C}$ and secondary side max. pressure on primary side is lower than the saturation pressure.

Quality Assurance

Approved by TÜV to be used as emergency-closing in heating and steam systems.

Material specification

1	Blocking unit with integrated spring
2	Electrical actuator (not incl. in AT 4830)

Dimension and Weight

Blocking unit	AT4830A30	AT4830B60
Actuator	AT3806A30	AT3806B60
A	164	216
B	586	713
C	130	200
D	100	100
Weight	7,0	12,5

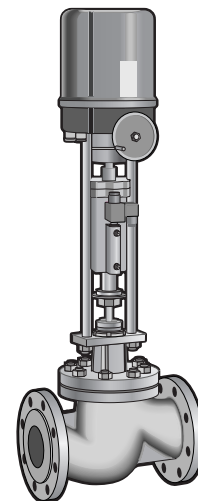
Blockin unit	AT4830B100
Actuator	AT3806B100
A	216
B	713
C	200
D	100
Weight	12,5

Actuator	AT 3806C150
A	205
B	1025
C	200
D	200
Weight	27,0

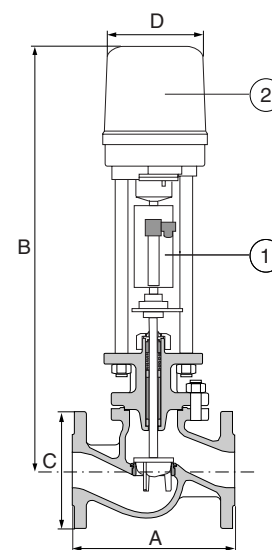
Measurements in mm, weight in kg, incl actuator.

Function and Design

A hydraulic cylinder with built-in spring is mounted between the electrical actuator and the valve. The actuator depresses the cylinder, simultaneously loading the spring, until the actuator limit switch responds. While depressing, the pressure chamber below the piston is filled completely with oil over the channel beside the piston. The chamber is then shut off with the solenoid valve (NO). When the limit switch responds, a relay (supplied by customer) is set remains locked in and connects the solenoid valve to the power supply in doing so the solenoid valve closes



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and the piston is blocked. The cone is now operated by the actuator. If the safety switch drops or on power failure, the solenoid valve will open the channel and the spring together with differential pressure at con will close the valve (three –way valves port B). Thereby oil is pressed in to the upper chamber.

For calibration it is recommended to release the device from time to time.

The indicator switch beside the piston is only for supervision that closing devise is pressed properly. It shall not be used for operating the solenoid valve.

The blocking unit can also be used together with Auma actuators.

Technical information

Table below is valid for control valves AT 4800-03, AT4807-10, AT 4845-48, AT 4815-18.

Seat diameter	4-25	32	40	50	65	80	100	125	150	200	250	300
AT 4830A30												
Max. closing press. bar												
V-port cone	40	24,9	15,9	10,2	6,0	4,0	2,5					
Perforated cone	40	24,9	15,9	10,2	6,0							
AT 4830B60												
Max. closing press. bar												
V-port cone			40	25,5	15,1	9,9	6,4	4,1	2,8			
Perforated cone			40	25,5	15,1							
AT 4830B100												
Max. closing press. bar												
V-port cone				40	27,1	17,9	11,5	7,3	5,1	2,9	1,8	1,3
Perforated cone				40	27,1							
AT 4830C150												
Max. closing press. bar												
V-port cone					40	27,9	17,8	11,4	7,9	4,5	2,9	2,0
Perforated cone					40	27,9	17,8	11,4	7,9	4,5		

*Closing pressure is also valid for Auma actuators.

Blocking unit	AT 4830A30	AT4830B60	AT 4830B100	AT 4830C150
Actuator	3806A30	3806B60	3806B100	3806C150
Stroke max, mm	40	40	40	80
Closing force, kN	1,2	1,2	1,2	2,0
Closing velocity mm/s	13	13	13	adjustable
Ambient temperature	0-70°C			
Voltage solenoid valve	24V, 115V, 230V/50Hz, (other voltage on request)			
Protecting class	IP 65			
Mounting	Vertical/horizontal, see headline Installation			
Hydraulic oil	ESSO Nutot H15			

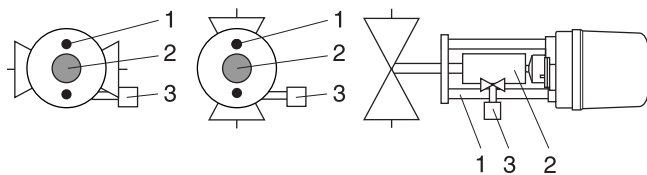
Installation

1	Bracket
2	Blocking unit
3	Solenoid valve

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Marking

Manufacturer, article no.

How to order

The device is delivered pre-installed on the actuator. When ordering, therefore. Specify actuator upon ordering.