

Actuators

AVD | AVDS | AVDR | AVDRS | AVDU | AVDUS | AVDY | AVDM

Presentation



AVD actuators are intended for position control of rotary mixing and ball valves. They are distinguished by robust construction and quiet operation. Innovative accessories provide a quick installation and removal, mostly without any tools. Turning direction, auxiliary switch activation and manual operations are indicated by means of LED lights.

Typical application

- For controlling mixing valves in heating or cooling systems.
- Switchover between heating and cooling.
- Switchover between heating and domestic hot water heating.
- Switchover between various heat sources.
- Various other central heating devices.

Features

- Can be installed on rotation or ball valves complying with ISO 5211.
- The actuators feature four different installation positions on the valve.
- Resistant to mixing valve blockages.
- The installation and removal can be mostly completed without any tools.
- Adjustable auxiliary switch for activating the circulation pump in any actuator position.
- Operation indication with LED lights.
- An easy replacement of the power cord if damaged.
- A permanent clutch features a switchover between the automatic and manual operation modes. During a switchover, the actuator is switched off electrically.
- Option of adjusting the turning direction and operation functions, without interference with the actuator interior.
- Option of an adjustable auxiliary switch for activating the circulation pump in any actuator position.

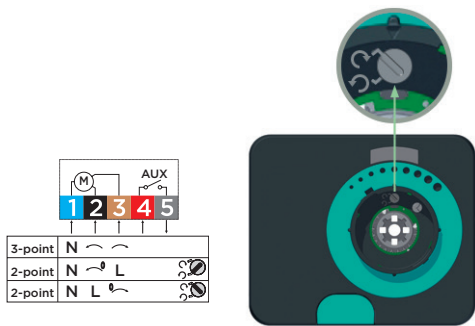
Description of settings buttons



- 1 - LED display - rotating the valve to left
- 2 - LED display - AUX switch is ON
- 3 - LED display - rotating the valve to right
- 4 - Button
- 5 - Manual operation clutch

Typical application	AVD	AVDS	AVDR	AVDRS	AVDU	AVDUS	AVDY	AVDM
For controlling mixing valves in heating or cooling systems	●	●	—	—	●	●	●	●
Switchover between heating and cooling	●	●	●	●	●	●	●	●
Switchover between heating and domestic hot water heating	●	●	●	●	●	●	●	●
Switchover between various heat sources	●	●	●	●	●	●	●	●
Various other central heating devices	●	●	●	●	●	●	●	●
Torque								
5 Nm	●	●	●	●	●	●	—	●
10 Nm	●	●	●	●	●	●	●	●
15 Nm	●	●	●	●	●	●	●	●
Operation mode								
Two-point	●	●	●	●	●	●	—	—
Three-point	●	●	—	—	●	●	—	—
Proportional 0(2)÷10 V or 0(4)÷20 mA	—	—	—	—	—	—	●	—
PWM control signal	—	—	—	—	—	—	●	—
ModBus	—	—	—	—	—	—	—	●
Pump ON switch								
Adjustable auxiliary switch for activating the circulation pump in any actuator position	—	●	—	●	—	●	—	—
Possible running speeds								
12 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	—	—
24 s/90 °	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	*(5 Nm)	—	—
60 s/90 °	●	●	●	●	●	●	●	●
120 s/90 °	●	●	●	●	●	●	●	●
240 s/90 °	●	●	●	●	●	●	—	—
480 s/90 °	●	●	●	●	●	●	—	—
Power supply								
230 V~, 50 Hz	●	●	●	●	●	●	—	—
24 V~, 50 Hz	●	●	●	●	●	●	●	●
24 V=	—	—	—	—	—	—	●	●
Operation display								
Display of valve turning direction with LED lights	●	●	●	●	●	●	●	●
Valve position indication on the scale	●	●	●	●	●	●	●	●
Indication of the auxiliary (AUX) switch activation	—	●	—	●	—	—	—	—
Resistant to mixing valve blockages	●	●	●	●	●	●	●	●
Installation								
Can be installed on rotation or ball valves complying with ISO 5211	●	●	●	●	●	●	●	●
The installation and disassembly are screwless	●	●	●	●	●	●	●	●
The actuators feature four different installation positions	●	●	●	●	●	●	●	●
Connection cable fitted with a connector	●	●	●	●	●	●	●	●
Turning direction adjustment and operation functions, without interference with the actuator interior	●	●	●	●	●	●	●	●
A permanent clutch features a switchover between the automatic and manual operation modes. During a switchover, the actuator is switched off electrically	●	●	●	●	●	●	●	●

Outlined functions



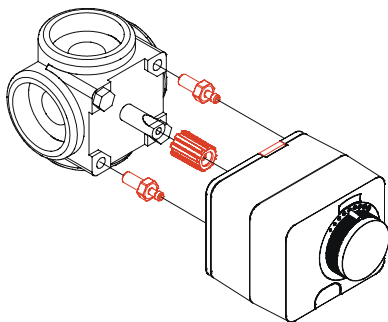
Universal 2- or 3-point operation

The universal actuator version provides a 2- or 3-point operation. Based on the electrical connection the actuator provides a 2- or 3-point control.



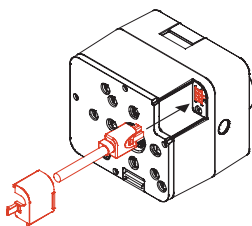
Manual mode clutch

Manual mode clutch of the AVD actuator can be activated by pressing the key. An activated clutch is indicated with a dimmed direction indication LED.



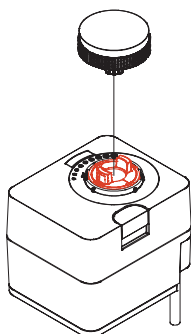
Quick installation

Innovative accessories and the installation system provide a quick installation and removal of the AVD actuator to/from the ball valve, mostly without any tools.



Plug-in connector


The AVD actuator with an integrated outlet in the housing for connector connection of the power cord. That provides a simple cable replacement in case of damage.



AUX switch

The AVD actuator features an extra switch for switching on loads up to 5 A, 230 V-. In order to configure an auxiliary switch, simply remove the manual turning button. The activation/deactivation point can be configured in any actuator position.

Technical specifications	AVD	AVDS	AVDR	AVDRS	AVDU	AVDUS	AVDY	AVDM
Connection voltage	230 V~ ali 24 V~						24 V~ ali 24 V=	
Own consumption	2,5÷5 W							
Auxiliary pump OFF switch	—	250 V~, 3 A	—	250 V~, 3 A	—	250 V~, 3 A	—	—
Degree of protection	IP 42							
Safety class	II for 230 V~ power supply, III for 24 V~/V= power supply							
Applied standards	EN 60730-1, EN 60730-2-14							
Housing material	PC - dark grey							
Standard cable length	2 m							
Operating temperature	0÷50 °C							
Storage temperature	-20÷75 °C							
Product weight	390÷860 g							
No. of pieces in the packaging unit	24 pcs							
Dimensions								
Electrical connection								

Item	Order code	Description
	1AVD0532M210-030	Actuator SELTRON AVD05, 3-point, 5 Nm, 2 min, 230 V-
	1AVD0512M210-030	Actuator SELTRON AVD05, universal 2- and 3-point, 5 Nm, 2 min, 230 V-
	1AVD05Y2M210-030	Actuator SELTRON AVD05Y, proportional, 5 Nm, 2 min, 24 V-/=
	1AVD15C2M210-030	Actuator SELTRON AVD15, 3-point, with an auxiliary switch, 15 Nm, 2 min, 230 V-
	1AVD15A2M210-030	Actuator SELTRON AVD15, universal 2- and 3-point, with an auxiliary switch, 15 Nm, 2 min, 230 V-

Accessories

1AVDMSA+NNO	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (5 Nm)
1AVDMSB+NNO	Seltron, Acaso, Brv, Esbe Type F & G & MG, Hora, Imit, Imp, Ivar, Paw old type, Somatherm, Valvex Controlmix, Wip (10 Nm+)
1AVDMSC+NNO	Afriso ARV series, Danfoss HFE series, Esbe 3F & 4F & T series
1AVDMSD+NNO	Meibes new valve, Brv
1AVDMSE+NNO	Landis & Gyr, Siemens – type VBI, type VBF
1AVDMSF+NNO	Meibes old valve, Wita
1AVDMSG+NNO	Esbe VRG series
1AVDMSH+NNO	Brv 1060 & 1050 series, Herz MV3P & MV4P series, Womix MIX M
1AVDMSI+NNO	Honeywell V544.., V543..
1AVDMSJ+NNO	Paw K32, K33, K34
1AVDMSK+NNO	Danfoss HRB, HRE
1AVDMSL+NNO	Vexve AMV Series, ABV Series
1AVDMST+NNO	Ball valve ISO 5211, flange FO3, axis L/R 9 mm
1AVDMSU+NNO	Ball valve ISO 5211, flange FO4, axis L/R 9 mm
1AVDMSV+NNO	Ball valve ISO 5211, flange FO4, axis L/R 11 mm
1AVDMSW+NNO	Ball valve ISO 5211, flange FO5, axis L/R 11 mm

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