

AMV 55, AMV 56 Actuator for three point control

Description



The actuators AMV 55 and AMV 56 are used with VL 2, VL 3 and VFS 2 valves from DN 65 up to DN 100 diameter and VF 2, VF 3 valves from DN 65 up to DN 150 diameter.

The actuator automatically adapts its stroke to valve end positions which reduces commissioning time. Optional auxiliary switches, feedback potentiometer and valve stem heater are available.

Main data:

- The advanced design incorporates load related 'switch-off' to ensure that actuator and valve are not exposed to overload.
- Digitale feedback end position indication signal for valve end position is available by terminal 4 or 5.
- Manual override.

Ordering

AMV 55

Type	Power supply	Code No.
AMV 55	24 V~	082H3020
AMV 55	230 V~	082H3021

AMV 56

Type	Power supply	Code No.
AMV 56	24 V~	082H3023
AMV 56	230 V~	082H3024

Accessories

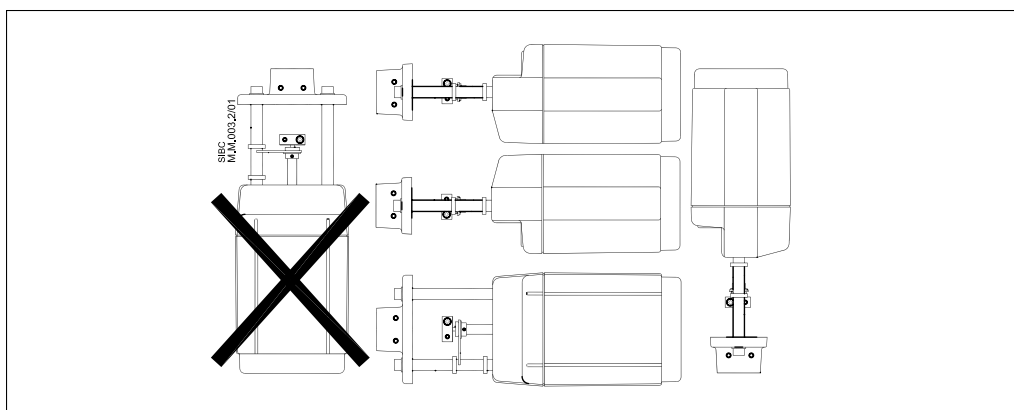
(only one potentiometer or additional switches can be added)

Type	Code No.
Potentiometer (10 kΩ/30 mm)	082H7035
Potentiometer (10 kΩ/40 mm)	082H7036
Potentiometer (1 kΩ/30 mm)	082H7038
Potentiometer (1 kΩ/40 mm)	082H7039
Additional switches (2x)	082H7037
Stem heater (VF, VL valves DN 65 - 100)	065Z7020
Stem heater (VF valves DN 125, 150, VFS valves DN 65 - 100)	065Z7022

Technical data

Type	AMV 55	AMV 56
Power supply	24 V~, 230 V~; +10 to -15%	
Power consumption	7 VA	17.5 VA
Frequency	50 Hz	
Control input	3-point	
Max.stroke	40 mm	
Close of force	2000 N	1500 N
Speed	8 s/mm	4 s/mm
Max. medium temperature	200 °C	
Ambient temperature	0 to 55 °C	
Storage and transport temp.	-40 to +70 °C	
Protection code	IP 54	
Weight	3.8 kg	
- marking in accordance with the standards	Low Voltage Directive 73/23/EEC, EMC-Directive 2006/95/EEC: - EN 60730-1, EN 60730-2-14	

Installation



Mechanical

The actuator should be mounted with the valve stem in either horizontal position or pointing upwards. Use a 4 mm Allen key (not supplied) to fit the actuator to the valve body. Allow for necessary clearance for maintenance purposes.

The valve has position indication rings which should be pushed together before commissioning; after stroking they indicate the ends of the stroke.

Electrical

Electrical connections can be accessed by removing the cover. Two M16 x 1.5 cable entries are provided. Both entries are provided with a rubber grommet for use with flexible cable. Note that in order to maintain the enclosure IP rating, appropriate cable glands must be used.

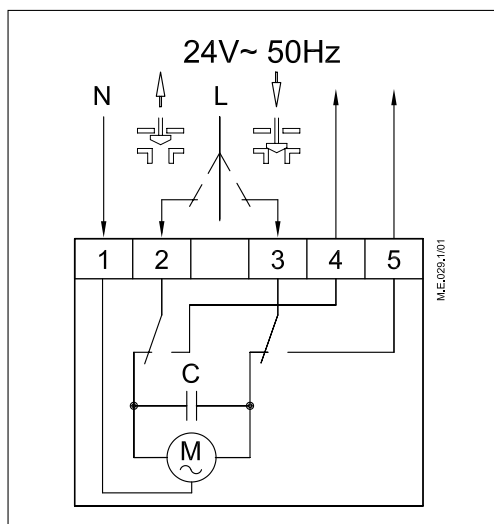
Disposal

The actuator must be dismantled and the elements sorted into various material groups before disposal.

Wiring



230 Vac version:
Do not touch anything on the PCB! Lethal voltage!



Terminals 2, 3:

Control voltage input from the controller.
Power supply 24 V~, 230 V~ (dependent on type)

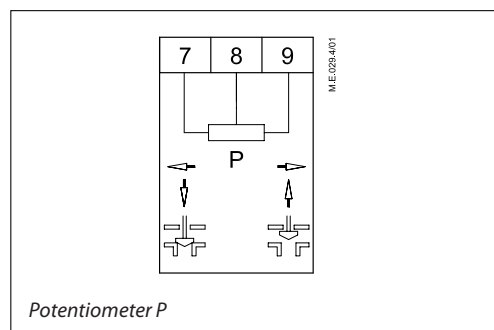
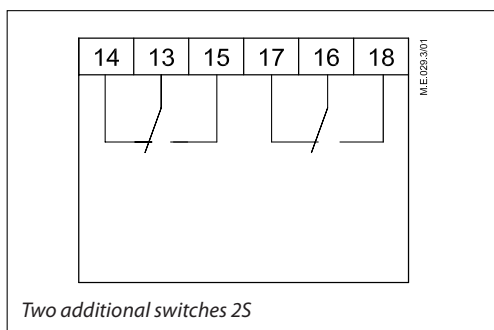
Terminals 4, 5:

Output used for position indication or monitoring.

Terminal 1

Neutral/Common (0 V)

Wiring - accessories



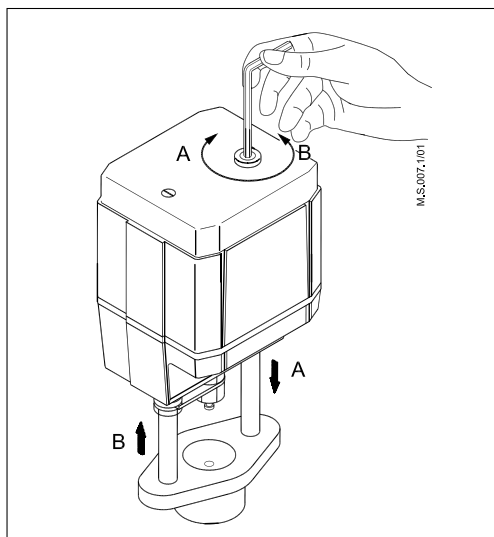
Commissioning

The following mechanical and electrical installation and the necessary checks and tests are to be completed in order to commission the unit:

- Turn on the power.
- Set the appropriate control signal and check the valve stem direction is correct for the application.

The unit is now fully commissioned.

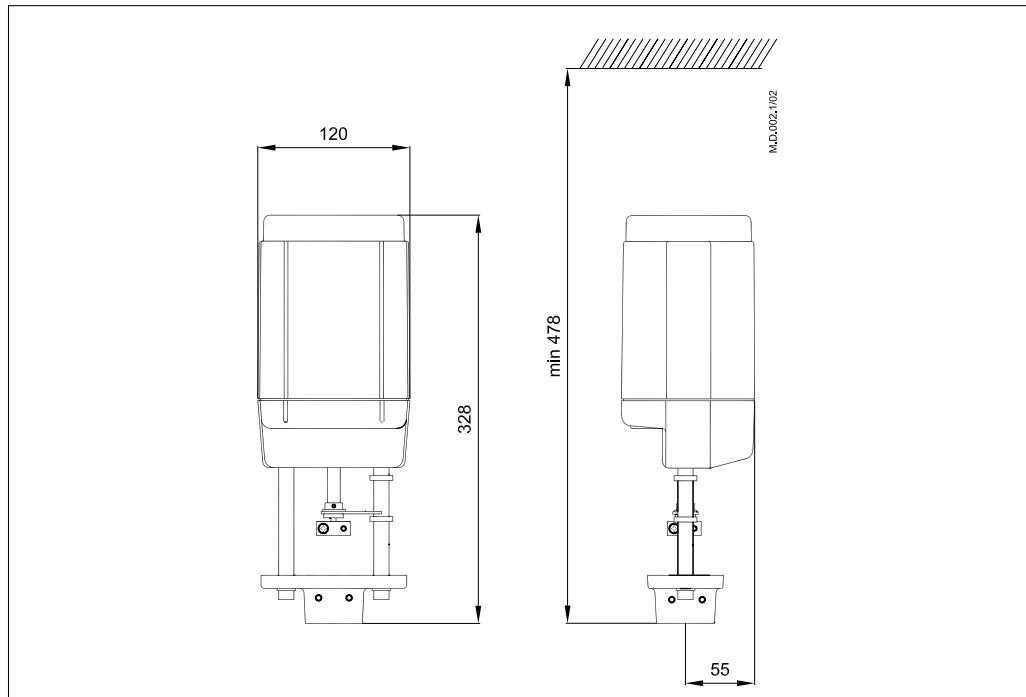
Manual override



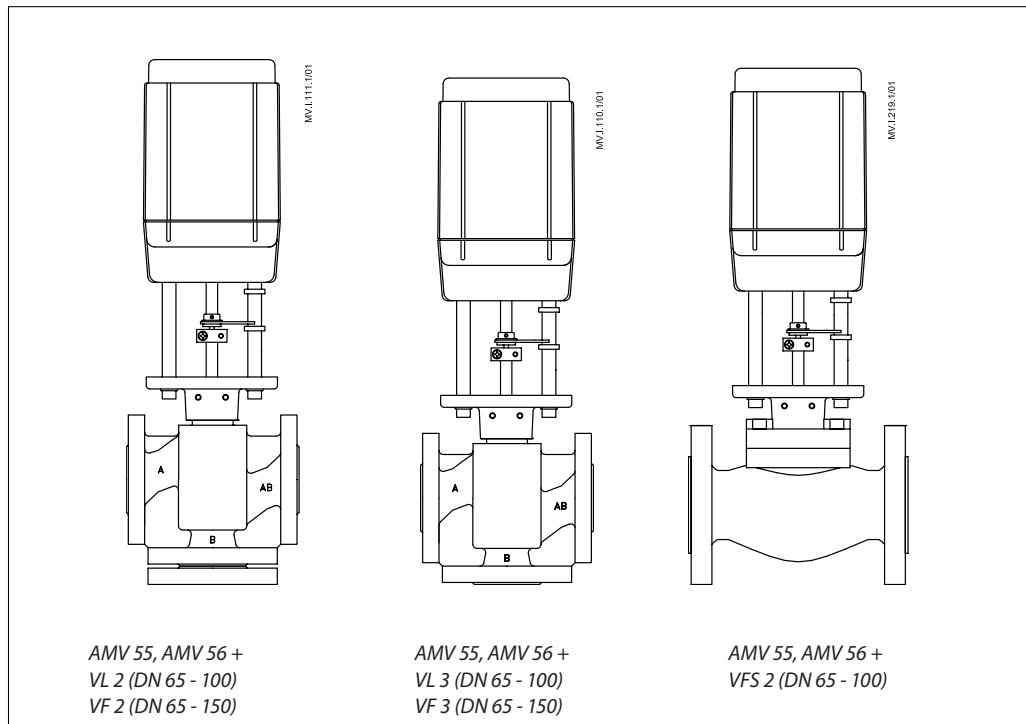
The manual override is applied by rotating the 4 mm Allen key (not supplied) to the required position. Observe the direction of the rotation symbol.

- Disconnect control signals
- Adjust valve position using an Allen key
- Set valve to closed position
- Restore control signals

Dimensions (mm)



Actuator - valve combinations



Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.