



AMV 10



AMV 13



AMV 20, AMV 30



AMV 23, AMV 33

Electrical actuators

AMV 10/20/30/ AMV 13/23/33

Description

Actuators with safety function (AMV 13, AMV 23 or AMV 33) and actuators without safety function (AMV 10, AMV 20 or AMV 30) are mainly used with VS, VM, VB, AVQM and VMV (only with AMV 10) valves.

Safety version is activated automatically in case of power failure or if the power supply is switched off by the safety thermostat. Actuators automatically adapt stroke to valve end positions which reduces commissioning time.

Features & benefits

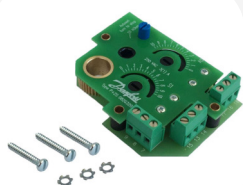
- The advanced design incorporates load related 'switch-off' to ensure that actuators and valves are not exposed to overload
- Digital feedback end position indication signal for valve end position is available by terminal 4 or 5
- Robust design and low weight
- DIN EN 14597 certified safety function

Ordering

Product code numbers

Type	Supply voltage [V] AC	Code number	VVS DK
AMV 10	230	082G3001	460946111
AMV 10	24	082G3002	460946110
AMV 13	230	082G3003	460946114
AMV 13	24	082G3004	460946113
AMV 20	230	082G3007	460946121
AMV 20	24	082G3008	460946120
AMV 23	230	082G3009	460946124
AMV 23	24	082G3010	460946123
AMV 30	230	082G3011	460946131
AMV 30	24	082G3012	460946130
AMV 33	230	082G3013	460946134
AMV 33	24	082G3014	460946133
AMV 10	230	082G3101	
AMV 13	230	082H0071	

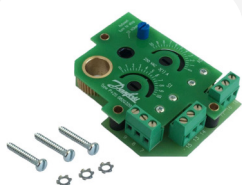
Accessories code numbers



082G3201

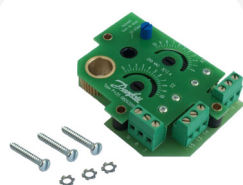
**Accessories - Electr Act,
AMV 33; AMV 30; AMV 23;
AMV 20**

Additional switch (2×)



082G3202

**Accessories - Electr Act,
AMV 33; AMV 30; AMV 23;
AMV 20**

Additional switch (2×) and
potentiometer (10 kΩ)

082G3203

**Accessories - Electr Act,
AMV 33; AMV 30; AMV 23;
AMV 20**

Additional switch (2×) and
potentiometer (1 kΩ)

065Z7547

**Accessories - MCV, AMV
13; AMV 10**

High temperature adapter for
AME 10, 13 up to 150 °C

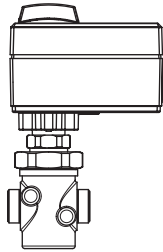
Accessory code numbers only for Danish market:

Code No.	VVS nr.
082G3201	46 0946.801
082G3202	46 0946.802
082G3203	46 0946.803

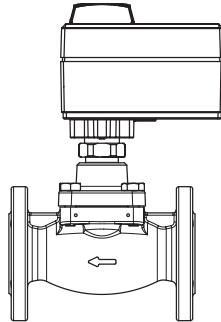
Overview

Product portfolio

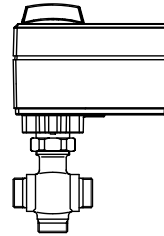
Actuator - valve combinations



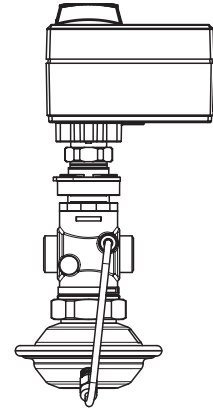
AMV 10, AMV 13 +
VS2 (DN 15-25)
VM2 (DN 15-32)



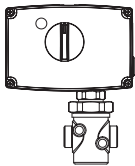
AMV 10, AMV 13 +
VB2 (DN 15-25)



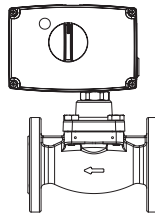
AMV 10 +
VMV (DN 15-40)



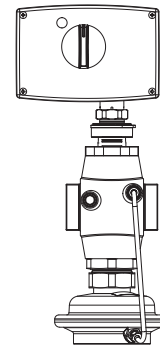
AMV 10, AMV 13 +
AVQM (see AVQM data sheet)



AMV 20/30, AMV 23/33 +
VS2 (DN 15-25)
VM2 (DN 15-50)



AMV 20/30, AMV 23/33 +
VB2 (DN 15-50)



AMV 20/30, AMV 23/33 +
AVQM (see AVQM data sheet)

Functions

Settings

Commissioning

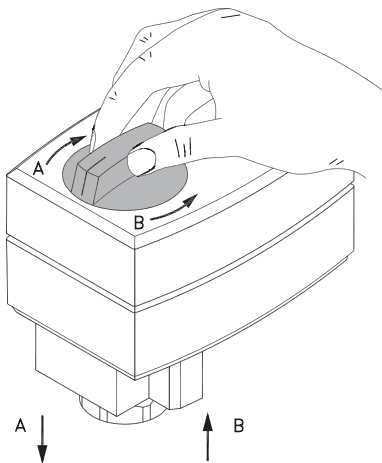
Complete the mechanical and electrical installation and perform the necessary checks and tests:

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

The unit is now fully commissioned.

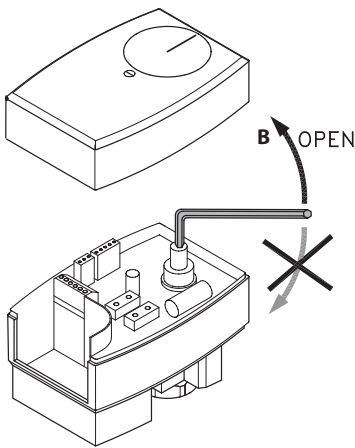


Manual Override



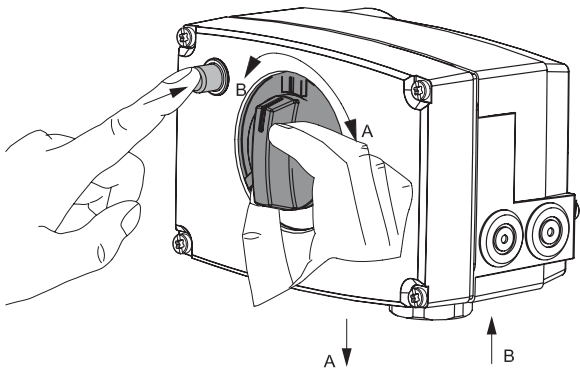
AMV 10

A ↓	CLOSE	OPEN
B ↑	OPEN	CLOSE



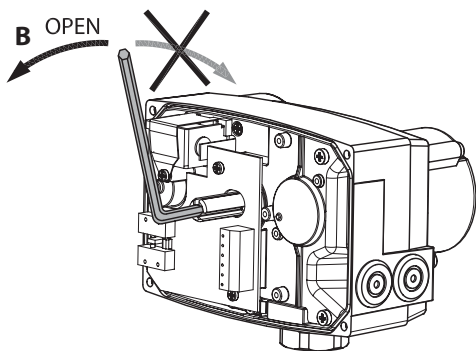
AMV 13

B ↑	OPEN



AMV 20, AMV 30

A ↓	CLOSE
B ↑	OPEN



AMV 23, AMV 33

B ↑	OPEN

Product details

General data

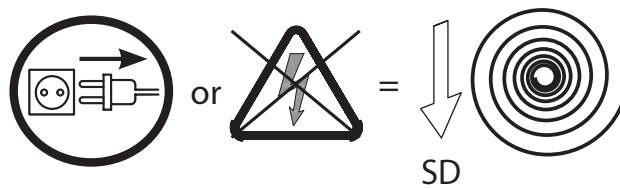
Type	AMV 10	AMV 13	AMV 20	AMV 23	AMV 30	AMV 33
Power supply (Vac)	24, 230; +10 ... -15%					
Power consumption (VA)	2	7	2	7	7	12
Frequency (Hz)	50 /60	50 /60	50 /60	50 /60	50 /60	50 /60
Spring return function	-	yes	-	yes	-	yes
Number of spring return activations	-	30,000	-	30,000	-	30,000
Safety function runtime (s), 7 mm stroke	-	8.5	-	-	-	-
Safety function runtime (s), 10 mm stroke	-	-	-	8	-	8
Control input	3-point	3-point	3-point	3-point	3-point	3-point
Closing force (N)	300	300	450	450	450	450
Max. stroke (mm)	7	7	10	10	10	10
Speed (s/mm)	14	14	15	15	3	3
Max. medium temperature (°C)	130	130	150	150	150	150
Ambient temperature (°C)	0 ... 55	0 ... 55	0 ... 55	0 ... 55	0 ... 55	0 ... 55
Storage and transport temperature (°C)	-40 ... 70	-40 ... 70	-40 ... 70	-40 ... 70	-40 ... 70	-40 ... 70
Ambient humidity	5-95 % r.h., non-condensing					
Protection Class	II	II	I (230 V); III (24 V)			
Grade of enclosure	IP 54	IP 54	IP 54	IP 54	IP 54	IP 54
Weight (kg)	0.6	0.8	1.4	1.45	1.4	1.45

Main functionalities

Safety function

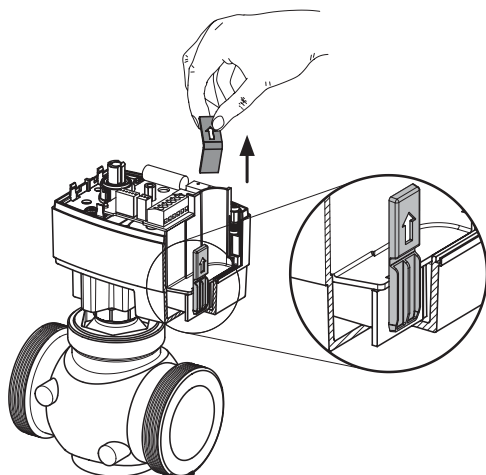
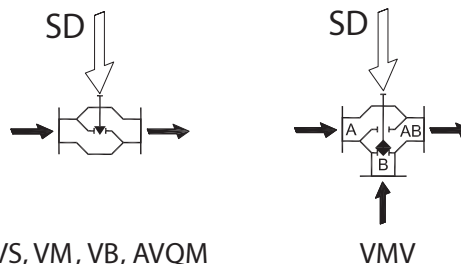
Note: Do not use safety activations for ON/OFF regulation.

The safety function will fully open or close the valve by power failure, depending upon the chosen safety action (SD = safety down). Valve selection will also affect the safety action. The safety function unit is factory fitted to the rear of the actuator.

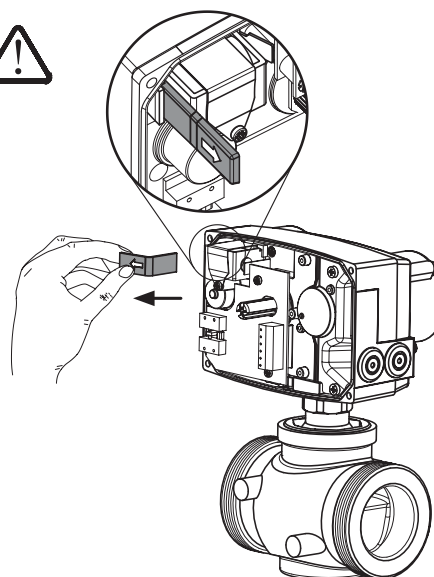


Valve type	Safety action selection will	
	Close port A-AB	Open port A-AB
VS	SD ¹⁾	-
VM (DN 15-50)	SD ¹⁾	-
VB (DN 15-50)	SD ¹⁾	-
AVQM (DN 15-50)	SD ¹⁾	-
VMV	-	SD

¹⁾ in compliance with DIN EN 14597



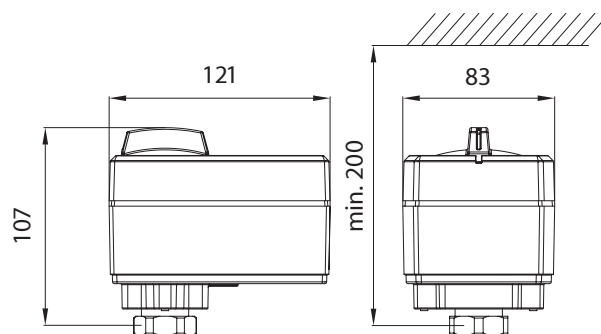
AMV 13



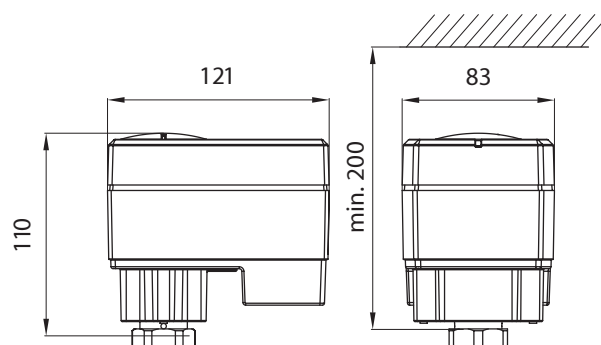
AMV 23, AMV 33

Dimensions

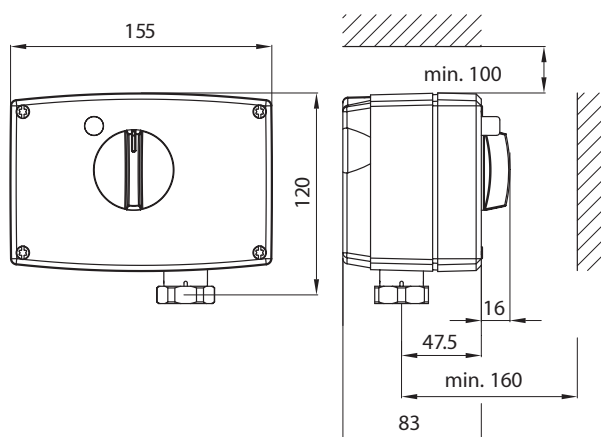
AMV 10



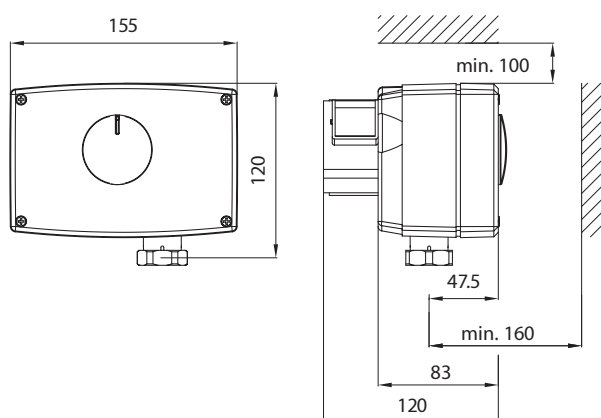
AMV 13



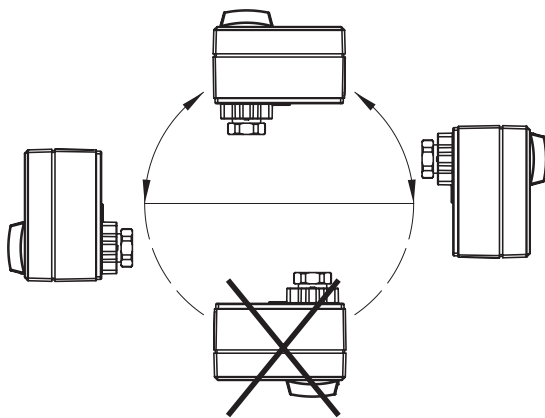
AMV 20, AMV 30



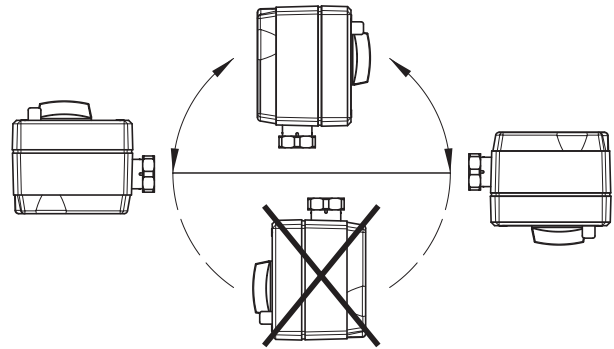
AMV 23, AMV 33



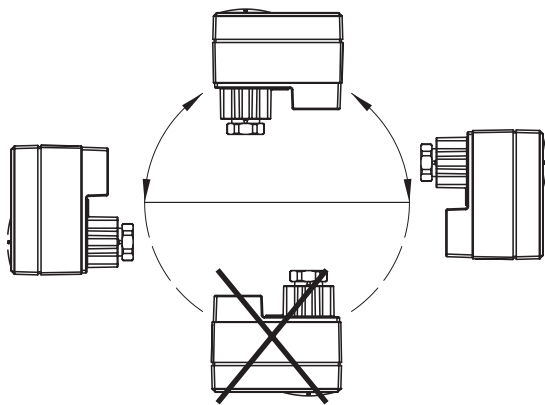
Installation



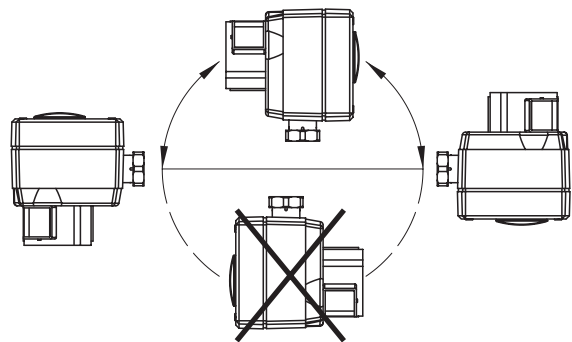
AMV 10



AMV 20, AMV 30



AMV 13



AMV 23, AMV 33

Mechanical

The actuator should be mounted with the valve stem in either horizontal position or pointing upwards.

The actuator is fixed to the valve body by means of a mounting ring, which requires no tools for mounting. The ring should be tightened by hand.

Electrical

Important: It is strongly recommended that the mechanical installation is completed before the electrical installation.

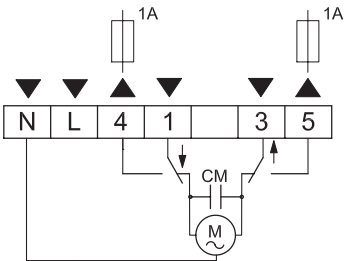
Note: Two cable entries are provided for M 16×1.5 cable glands. One entry is provided with a rubber grommet. Note that in order to maintain the enclosure's IP rating, appropriate cable glands must be used.

Wiring

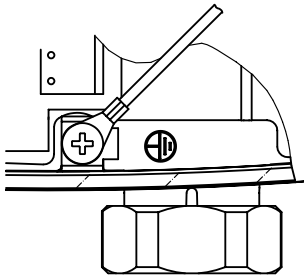
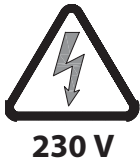


230 Vac version:

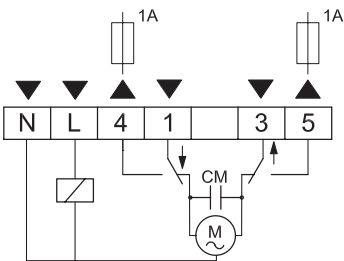
Do not touch anything on the PCB!
Do not remove the cover before the power supply is fully switched off.



AMV 10, AMV 20, AMV 30



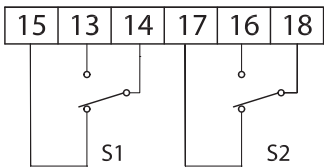
AMV 20, AMV 30, AMV 23, AMV 33



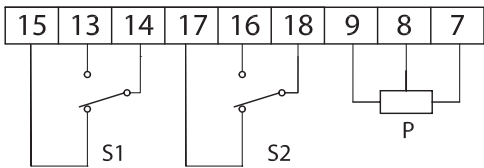
AMV 13, AMV 23, AMV 33

N	0 V		Neutral
L	24/230 Vac		Power supply
1	24/230 Vac		Input
3			
4, 5			Output

Wiring - accessories



Additional switch (2x)



Additional switch (2x) and potentiometer

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
UA Declaration	UA Actuators 2024-06-27	Danfoss	LVD
UA Declaration	UA Controllers 2024-07-25	Danfoss	LVD
Export Control Declaration	Actuators pressure flow and temperature	Danfoss	
EU Declaration	Danfoss EU 221011EN0815101	Danfoss	LVD

Contact details

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