



AMV 13 SU



AMV 23 SU

Electrical actuators

AMV 13 SU / AMV 23 SU



Description

The actuators with safety function are mainly used with VZ valves (AMV 13 SU) or with VS, VM or VB valves (AMV 13 SU, AMV 23 SU) or AVQM (AMV 23 SU). Safety version is activated automatically in case of power failure or if the power supply is switched off by the safety thermostat.

The actuator automatically adapts its stroke to valve end positions which reduces commissioning time. Optional feedback potentiometer is available on special request.

Features & benefits

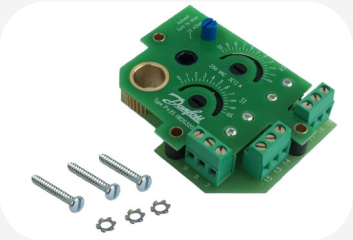
- The advanced design incorporates load related 'switch-off' to ensure that actuators and valves are not exposed to overload.
- Digital feedback end position indication signal for valve end position is available by terminal 4 or 5.
- Low weight and robust.
- Spring return version.

Ordering

Product code numbers

Type	Supply voltage [V] AC	Actuator speed [s/mm]	Code number	VVS DK
AMV 13 SU	24	14	082H3043	460946513
AMV 13 SU	230	14	082H3042	460946514
AMV 23 SU	24	15	082G3041	
AMV 23 SU	230	15	082G3040	

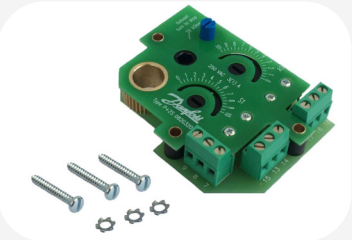
Accessories code numbers



082G3203

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

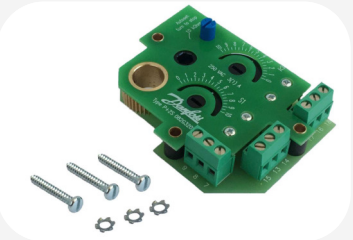
Additional switch (2x) and potentiometer (1 kΩ)



082G3201

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

Additional switch (2x)



082G3202

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

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

Accessory code numbers only for Danish market:

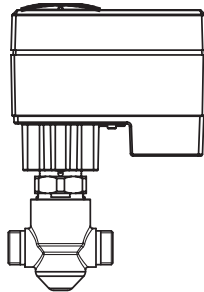
Code No.	VVS nr.
082G3201	46 0946.801
082G3202	46 0946.802
082G3203	46 0946.803

Overview

Product portfolio

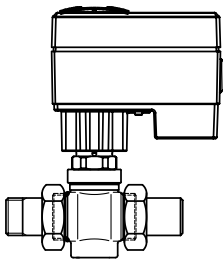
Actuator - valve combinations

- which close port A-AB if safety version is activated

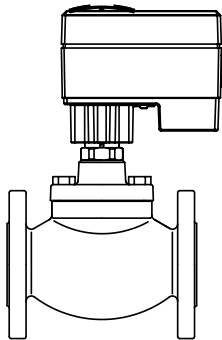


AMV 13 SU +
VZ (DN 15-20)

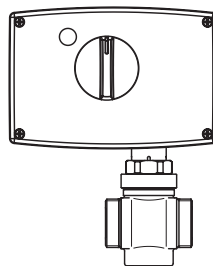
- which open port A-AB if safety version is activated



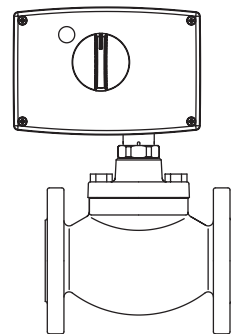
AMV 13 SU +
VS2 (DN 15-25)
VM2 (DN 15-25)



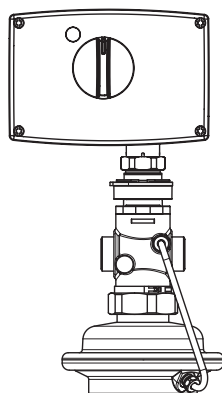
AMV 13 SU +
VB2 (DN 15-20)



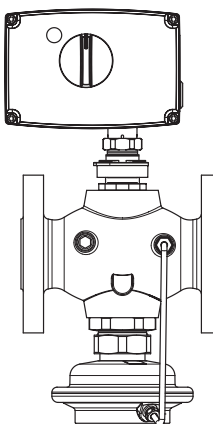
AMV 23 SU +
VS2 (DN 15-25)
VM2 (DN 15-50)



AMV 23 SU +
VB2 (DN 15-50)



AMV(E) 2./3. +
AVQM (DN 15-50)



AMV(E) 2./3. +
AVQM (DN 32-50)

Functions

Settings

Commissioning

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

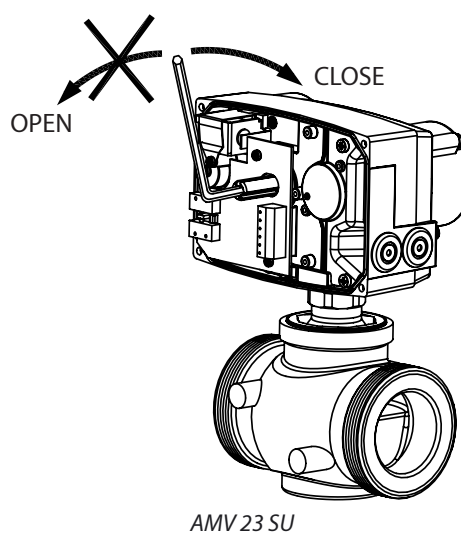
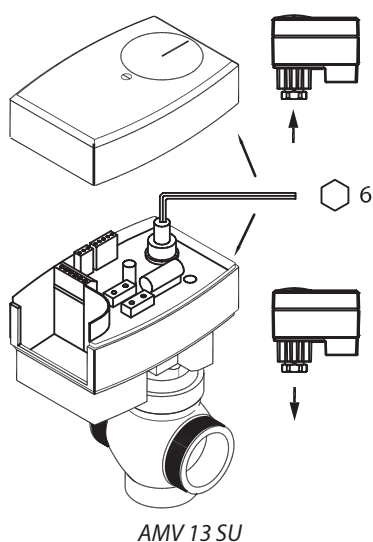
- Turn on the power.
- Set the appropriate control signal and check that the valve stem direction is correct for the application.

The unit is now fully commissioned.

Commissioning / testing feature

The actuator can be driven to the fully open or closed positions (depending on valve type) by connecting SN to terminals 1 or 3.

Manual Override



On spring versions manual override is achieved by disconnecting the power supply, removing the cover and inserting a 6 mm Allen key for AMV 13 SU, a 5 mm Allen key for AMV 23 SU (not supplied) into the top of the positioning spindle and turning the key against the spring. Observe the direction of rotation symbol. To hold a manual override position, the key must be wedged.

If manual override has been used then X and Y signal are not correct until the actuator reaches its end position. If this is not accepted reset the actuator.

Product details

General data

Technical data

Type	AMV 13 SU	AMV 23 SU
Power supply (Vac)	24, 230; +10 to -15%	24, 230; +10 to -15%
Power consumption (VA)	7	7
Frequency (Hz)	50/60 - 24 V version / 50 - 230 V version	50/60 - 24 V version / 50 - 230 V version
Control input	3-point	3-point
Closing force (N)	300	450
Max. stroke (mm)	5.5	10
Speed (s/mm)	14	15
Max. medium temperature (°C)	130	150
Ambient temperature (°C)	0 ... 55	0 ... 55
Storage and transport temp. (°C)	-40 ... 70	-40 ... 70
Ambient humidity	5-95 % r.h., non-condensing	5-95 % r.h., non-condensing
Protection Class	II	I (230 V); III (24 V)
Grade of enclosure	IP 54	IP 54
Weight (kg)	0.8	1.45

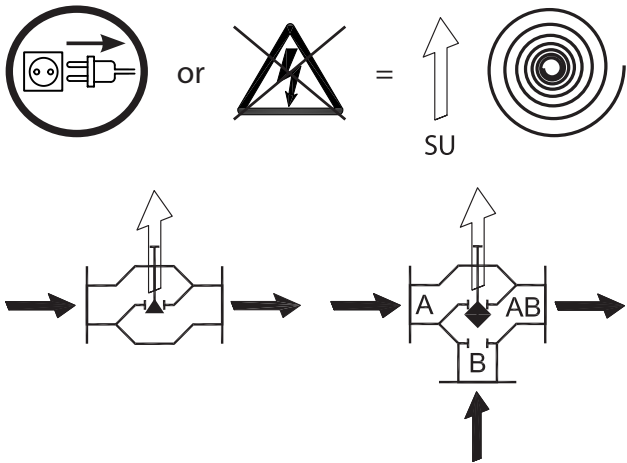
Main functionalities

Safety function

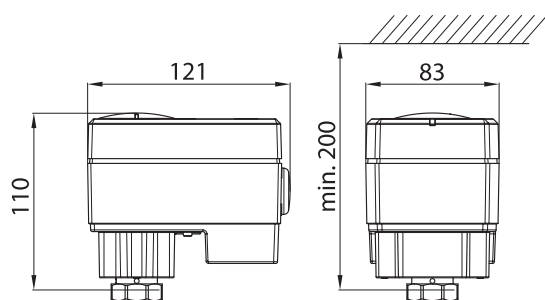
Note: Do not use safety activations for ON/OFF regulation.

The safety function will fully open or close the valve when the power is removed, depending upon the spring action selected. Valve selection will also affect the spring action. The safety function unit is factory fitted to the rear of the actuator.

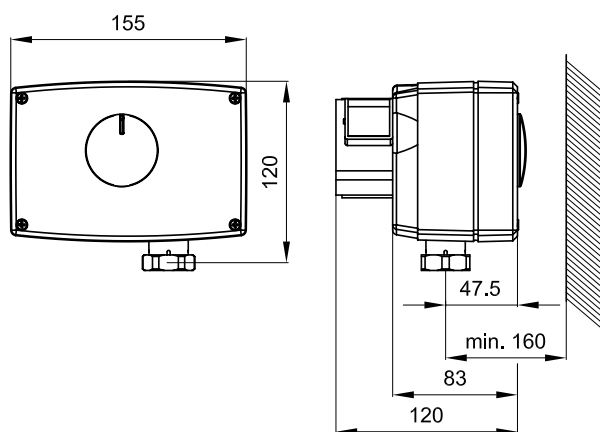
Valve type	If safety version is activated than port A-AB will be
VZ	CLOSED
VS	OPENED
VM	OPENED
VB	OPENED



Dimensions



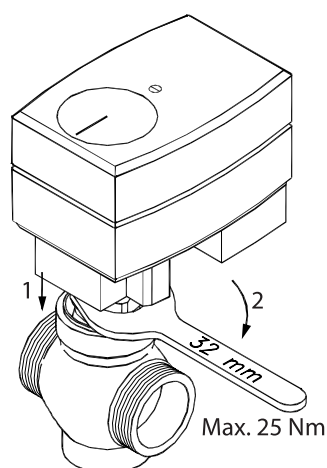
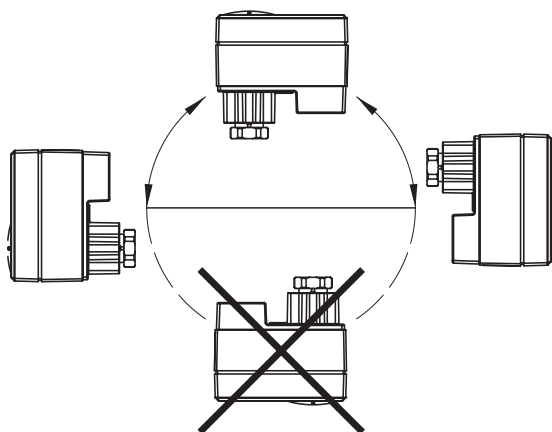
AMV 13 SU



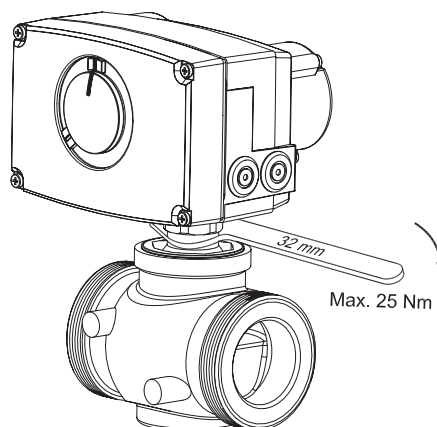
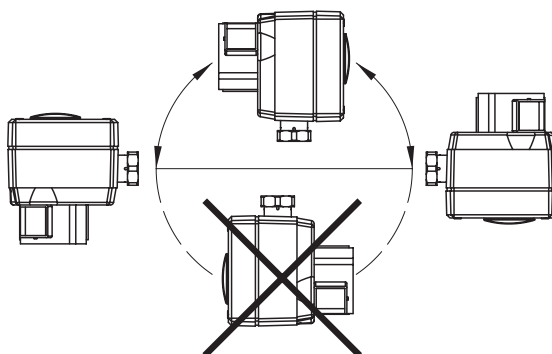
AMV 23 SU

Installation

AMV 13 SU



AMV 23 SU





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

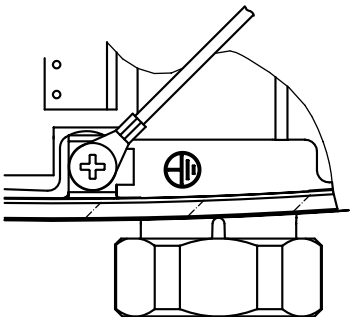
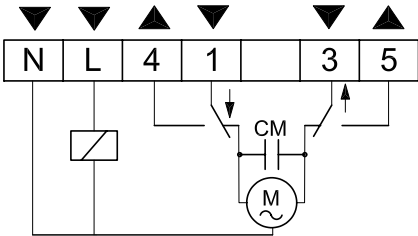
Important: It is strongly recommended that the mechanical installation is completed before the electrical installation.

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! Lethal voltage!

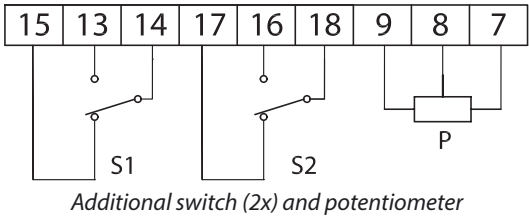
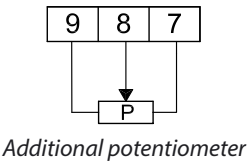
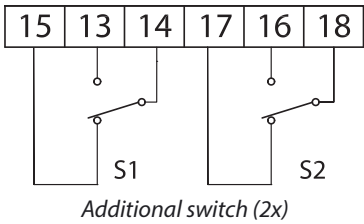


230 V (valid for AMV 23 SU)

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



Accessories



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	Issuer	Approval topic
UA Declaration	UA Actuators 2024-06-27	Danfoss	EMC
UA Declaration	UA Controllers 2024-07-25	Danfoss	EMC
Export Control Declaration	Electrical actuators	Danfoss	

Contact details

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