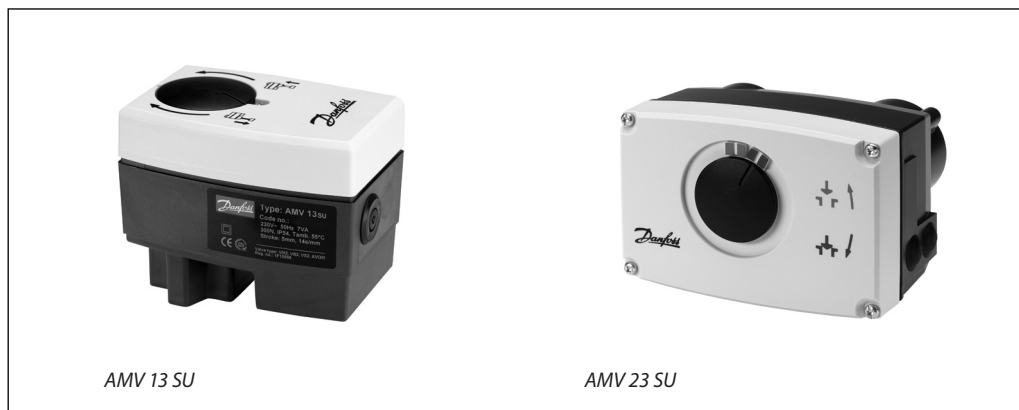


## Data sheet

# Actuators for three point control

## AMV 13 SU, AMV 23 SU - safety function (spring up)

### 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). 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.

The actuator has some special features:

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

### Main data:

- Nominal voltage:
  - 24 VAC, 50 Hz/60 Hz
  - 230 VAC, 50 Hz/60 Hz
- Force:
  - AMV 13SU ..... 300 N
  - AMV 23SU ..... 450 N
- Stroke:
  - AMV 13SU ..... 5,5 mm
  - AMV 23SU ..... 10 mm
- Speed:
  - AMV 13SU ..... 14 s/mm
  - AMV 23SU ..... 15 s/mm
- Max. medium temperature: 130 °C
- Self stroking

### Ordering


#### Actuators

Type	Supply voltage	Speed	Code No.
AMV 13 SU (spring up)	24 V~	14 s/mm	<b>082H3043</b>
AMV 13 SU (spring up)	230 V~	14 s/mm	<b>082H3042</b>
AMV 23 SU (spring up)	24 V~	15 s/mm	<b>082G3041</b>
AMV 23 SU (spring up)	230 V~	15 s/mm	<b>082G3040</b>

#### Accessories

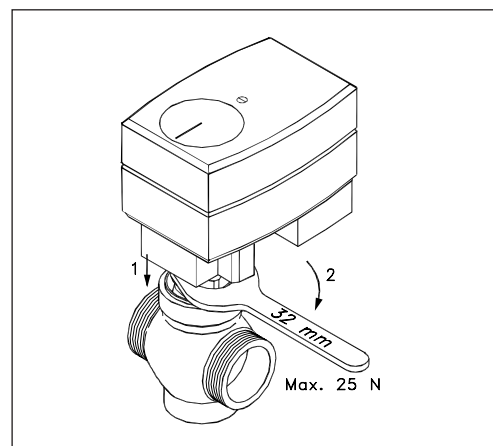
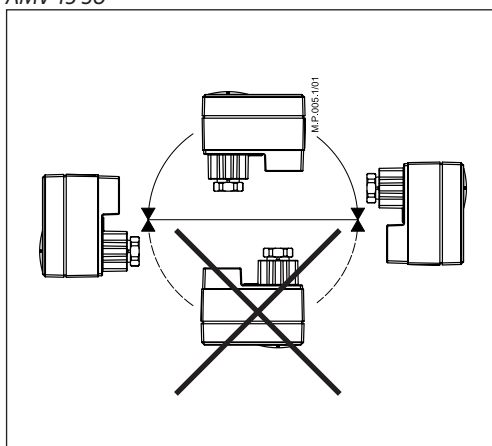
Type	Code No.
Additional potentiometer (10 kΩ)	<b>082H7019</b>
Additional potentiometer (1 kΩ)	<b>082H7020</b>
Additional switch (2x)	<b>082G3201</b>
Additional switch (2x) and potentiometer (10 kΩ)	<b>082G3202</b>
Additional switch (2x) and potentiometer (1 kΩ)	<b>082G3203</b>

# Technical data

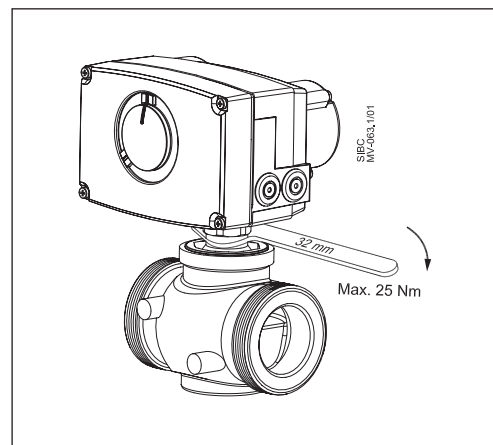
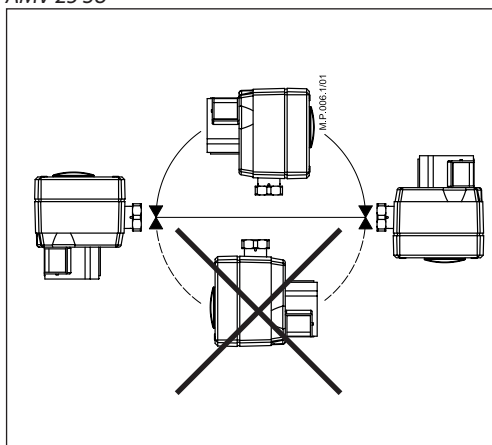
Type		AMV 13 SU	AMV 23 SU
Power supply	Vac	24, 230; +10 to -15%	
Power consumption	VA	7	
Frequency	Hz	50/60 - 24 V version / 50 - 230 V version	
Control input		3-point	
Close of force	N	300	450
Max. stroke	mm	5,5	10
Speed	s/mm	14	15
Max. medium temperature		130	150
Ambient temperature	°C	0 ... 55	
Storage and transport temp.		-40 ... 70	
Protection code		IP 54	
Weight	kg	0,8	1,45
 - marking in accordance with standard		EMC Directive 89/336/EEC, 92/31/EEC, 93/68/EEC, EN 50081-1 and EN 50082-1 Low Voltage Directive 73/23/EEC and 93/68/EEC, EN 60730/2/14	

# 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 nut which requires 32 mm screw key. The nut should be tightened with a torque of max. 25 Nm.

## Electrical

Electrical connections can be accessed by removing the cover.

Two M16×1,5 cable entries are provided. However, in order to maintain the enclosure IP rating an appropriate cable gland must be used.

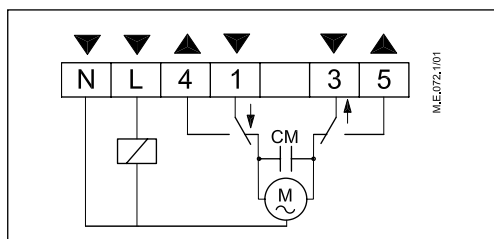
## Disposal

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 1, 3:

Control voltage input from the controller.

### Terminals 4, 5:

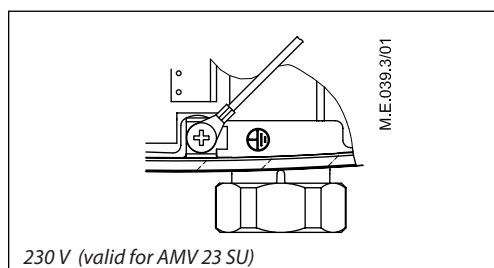
Output used for position indication or monitoring.

### L

Power supply 24 or 230 V~

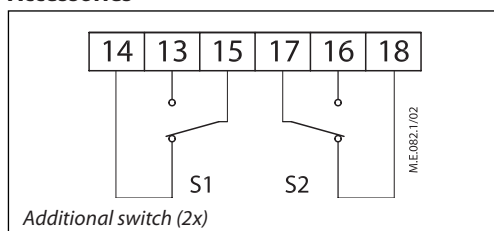
### N

Common (0 V)

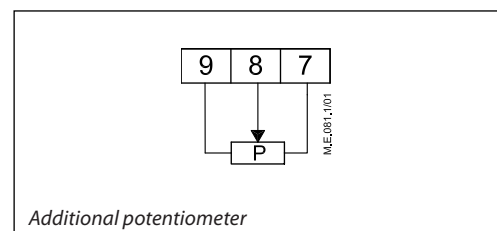


230 V (valid for AMV 23 SU)

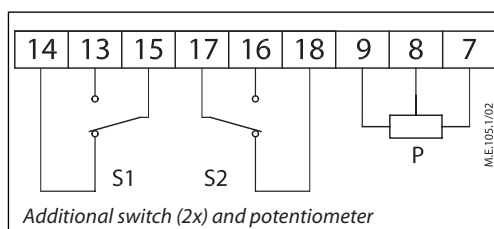
## Accessories



Additional switch (2x)



Additional potentiometer



Additional switch (2x) and potentiometer

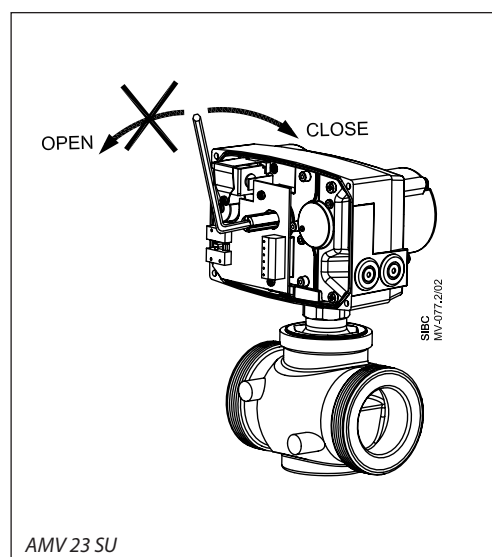
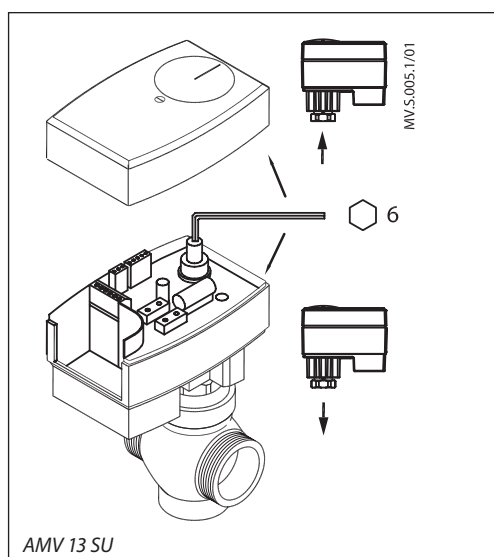
## Commissioning

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



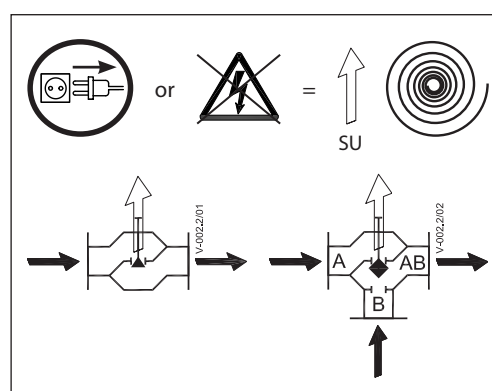
On spring versions manual override is achieved by disconnecting the power supply, removing the cover and inserting a 6 mm Allen key for AMV 13 SU, a 5 mm Allen key for AMV 23 SU (not supplied) into the top of the positioning spindle and turning the key against the spring. Observe the direction of rotation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

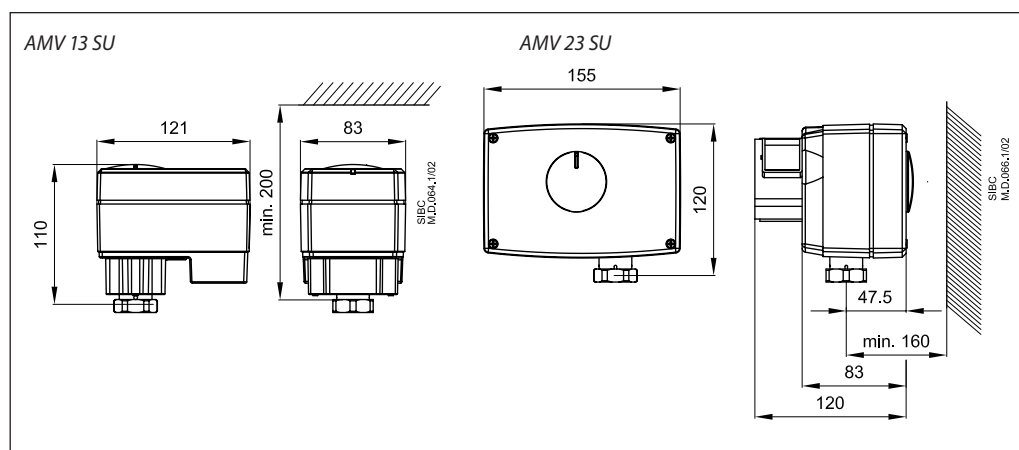
# Safety function

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

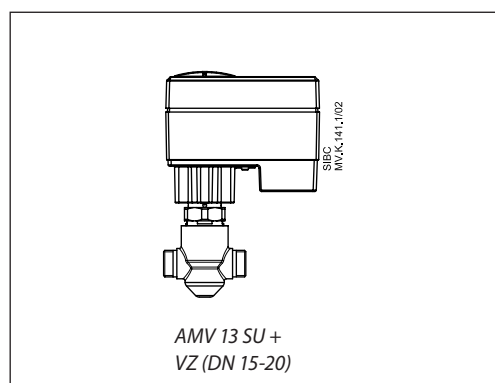


Dimensions



Actuator - valve combinations

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



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

