

Actuator module AM 5a

Installation and Operation Instructions - Version 6/18

Please read these instructions carefully and completely.

Only qualified personnel may conduct work on the device!

1 Intended use

- Drive module for the control of a 24 V- actuator of the type series SG1Bx or SG1Cx on a smoke and heat ventilation device (SHV). The connection of 3rd party actuators and actuators of the type series SGxx is not permitted
- Set the rated current of the actuator using the DIP switch. In case of overload, the actuator is switched off through the drive module
- The actuators switch off in their final position via built-in limit switches
- The input voltage may range from 24 V $\overline{=}$ to 48 V $\overline{=}$
- Smooth start-up of the actuator after applying the input voltage
- Do not change the travelling direction by direct inversion of polarity of the input voltage
- Power control can be activated by DIP switch
- Plastic enclosure, light grey (like RAL 7035)

2 Installation / Putting into service / Putting out of service / Notes

- Put the power supply (e.g. SHEVS Control Centre) out of service as specified in the corresponding operating instructions to install the module. Install and wire the module as specified in the connection diagram (see 5).
- Set the rated current (see Section 3).
- Put the power supply back in service.

3 Selectable functions

Following functions can be selected using DIP switch (* = factory setting):

⚠ *The setting of the DIP switch is carried out by the manufacturer of the Smoke Vent!*

- **“Rated current” DIP switch 1, 2, 3:**

The following rated currents of the actuator can be set for the operation:

ON = ON ON = OFF

1.3 A



1.6 A



2.0 A*



2.6 A



4.0 A



6.0 A



8.0 A



The maximum rated current of the actuator must not be exceeded!

Observe connection values (Technical Data)

- **“Power control” DIP switch 4:**

The power control influences the ratio of force to speed of the actuator. The speed of the actuator is reduced and the push force is increased during activated control. Observe the total runtime of the actuator during this process!



Power control Off *



Power control On

- **Settings carried out:**

	ON	OFF
DIP switch 1:	<input type="radio"/>	<input type="radio"/>
DIP switch 2:	<input type="radio"/>	<input type="radio"/>
DIP switch 3:	<input type="radio"/>	<input type="radio"/>
DIP switch 4:	<input type="radio"/>	<input type="radio"/>

Date:

Stamp / Signature:

4 Technical data

AM 5a (8167 5100 0000)

Dimensions in mm (W x H x D)	130 x 85 x 37
Cable entry through knockouts	from the left
Environmental class I (VdS 2581)	-5 °C ... +75 °C
Maximum constant ambient temperature	+60 °C
Relative humidity	20 % ... 80 %, non-condensing
Enclosure protection rating	IP54
Voltage supply (inversion of polarity for travelling direction Δ / ∇)	24 V $\overline{=}$ to 48 V $\overline{=}$ (-3,6 V / +4,8 V)
- permissible ripple	2 V _{SS}
- required pause time for change of sense	2 s

Typical current input at 24 V $\overline{=}$ and 48 V $\overline{=}$ depending on the set rated current

Rated current	1,3 A	1,6 A	2,0 A	2,6 A	4,0 A	6,0 A	8,0 A
Voltage							
24 V	1,3 A	1,6 A	2,0 A	2,6 A	4,0 A	6,0 A	8,0 A
48 V	0,8 A	1,1 A	1,3 A	1,6 A	2,1 A	3,0 A	4,0 A

Maximum conductor cross section	4 x 6 mm ² (rigid) input 2 x 6 mm ² (rigid) output
---------------------------------	---

Allowed cable length from power supply to **AM 5** for simple arrangement without extensive branching

Current	1,3 A	1,6 A	2,0 A	2,6 A	4,0 A	6,0 A	8,0 A
Cross-section							
2 x 1,5 mm ²	100 m	82 m	65 m	50 m	33 m	22 m	16 m
2 x 2,5 mm ²	167 m	136 m	109 m	84 m	54 m	36 m	27 m
2 x 4,0 mm ²	268 m	218 m	174 m	134 m	87 m	58 m	44 m
2 x 6,0 mm ²	402 m	326 m	261 m	201 m	131 m	87 m	65 m
4 x 1,5 mm ²	201 m	163 m	131 m	100 m	65 m	44 m	33 m
4 x 2,5 mm ²	335 m	272 m	218 m	167 m	109 m	73 m	54 m
4 x 4,0 mm ²	535 m	435 m	348 m	268 m	174 m	116 m	87 m
4 x 6,0 mm ²	803 m	653 m	522 m	402 m	261 m	174 m	131 m

When
4 cores, are used, connect 2
cores
each in parallel.

The product complies with the requirements of the 2014/35/EC and 2014/30/EC Directives. **CE**

5 Connection diagram, layout diagram

