

AVF234S: 2000N Actuator

With analog SUT positioner (analogue I/O signals) and spring return

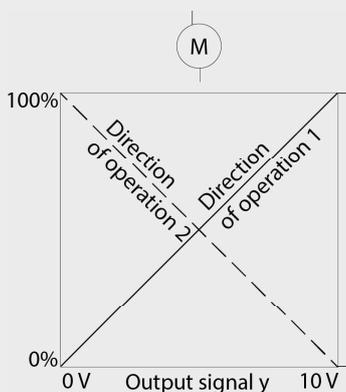
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TECHNICAL DESCRIPTION

Power supply 230 V with modules or direct connection for 24 V~ or 24 V=; continuous activation also permissible at 230 V
 Two-part housing made of fire-retardant yellow plastic and seals to IP66
 Maintenance-free gearbox of sintered steel, gearbox plate of steel.
 Patented actuator-valve coupling.
 Mounting column made of stainless steel; mounting bracket (for fitting the valve) of aluminium
 Electrical connections (max. 2.5 mm²) with screw terminals.
 Three pre-scored cable inlets for M20×1.5 (2×) and M16×1.5.
 Installation position: vertically upright to horizontal, but not upside down unless protected from dripping water.



Subject to change without notice.

AREAS OF USE

For use with two or three-way control valves. For controllers with continuous output (0...10 V or 4...20 mA) or switching output (2-point or 3-point control). For applications where a fail-safe function is required.

HOW ENERGY EFFICIENCY IS IMPROVED

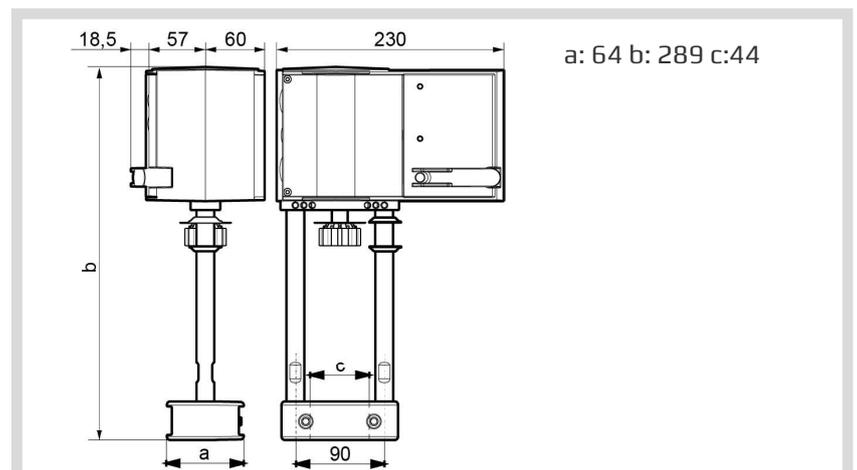
Automatic adaptation to valve, precision control and high energy efficiency with minimal operating noise.

FEATURES

- Actuator with spring return action and pushing force of at least 2000 N with actuator extending or retracting spindle versions.
- Stepping motor with SUT (Superior Universal Technology) electronic control unit and electronic load-dependent cut-off
- Automatic detection of control signal applied (continuous or switching), indicated by two LEDs
- The type of characteristic (linear, quadratic or equal-percentage) can be set on the actuator
- Automatically adapts to valve stroke between 8 and 49 mm; captive even in the event of a power failure
- Direction of travel can be selected via screw terminals when making electrical connection or remotely
- Coding switches for selecting the characteristic and the running time (2, 4 or 6 s/mm)
- Lever for external manual adjustment, with motor cut-off, and for triggering a re-initialisation
- Easy assembly with valve; spindle is connected automatically when control voltage is applied
- The availability of numerous adaptors enables the actuator to be fitted to third-party valves

Type	Positioning time (s/mm)	Nominal stroke (mm)
AVF234SK008 Actuator spindle normally retracted	2/4/6	49
AVF234SK009 Actuator spindle normally extended		

DIMENSION DRAWING



TECHNICAL DATA

Type	Run time s/mm	Stroke mm	Pushing force N	Power supply ¹⁾	Weight kg
AVM 2345 K002 AVF 2345 K009	2/4/2006	8...49	2000	24 V~/=	5.6
Positioner: ¹⁾ Control signal 1 Control signal 2 Position feedback signal	0...10 V, R _i > 100 kΩ 4...20 mA, R _i = 50 kΩ 0...10 V, load > 2.5 kΩ (Optional: 4-20mA)		Starting point U ₀ Control span ΔU Switching range Xsh	0 or 10 10 V 300 mV	
Power supply with accessories	24 V~ ±20 %, 50...60 Hz 24 V= ±15% 230 V~ ±15%, 50...60 Hz		Degree of protection Protection class	IP 66 (EN 60529) III (IEC 60730)	
Power consumption	10 W 18 VA ²⁾		Response time for 3-point	200 ms	
Stroke	8...49 mm		Manual and wiring diagram	99.70.02.02	
Number of spring returns	>40.000		Dimension drawing	M10356	
Spring return time ³⁾	15...30s		Fitting instructions	99.70.02	
Max. temperature of medium	130 °C (Option 240°C) ⁴⁾		Material declaration	MD 51.377	
Permitted ambient temperature	-10...55 °C				
Permitted ambient humidity	< 95% rh without condensation				

1) Also for 2-point or 3-point depending on the connection for 24 V~

2) Design the transformers for this value, otherwise functional faults may occur.

3) The return time corresponds to a stroke of 14 to 40mm and does not depend on the set run time

4) If the temperature of the medium is higher (from 130 °C to 240 °C), an adaptor is required (see accessories)

CE conformity

EMC Directive 2004/108/EC

EN 61000-6-2 ¹⁾

EN 61000-6-4

Low-Voltage Directive 2006/95/EC

EN 60730-1

EN 60730-2-14

Over-voltage category III

Degree of pollution III

ACCESSORIES

Type	Description
1-0152285	Temperature adaptor for media temperature > 130 °C ... 240 °C
1-0152287	Potentiometer 1000 Ω , 1 W, 24 V; installation as per MV 505894
1-0152289	Auxiliary change-over contacts (2 pcs. each) 12...250 V Infinitely variable, min. 100 mA and 12 V, additional load 6(2) A, MV 505866
1-0152281	230 V Module, plug-in type , for 2-/3-point and continuous activation, additional power 2 VA 230 V 15% power supply, MV 505901
1-0152627	4-20 mA Position feedback signal , for 24VAC/DC, output load resistor max. 600 ohm Accuracy +/- 0,25% of full range
1-0147655	Cable gland M20×1.5 IP68
1-0145537	Cable gland M16×1.5 IP68