

# AVM321/AVM322: 1000N Actuator

For 2-point or 3-point control

0-99.70.05-B

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## AREAS OF USE

For actuation of 2 and 3-way valves. For controllers with a switching output (2-point or 3-point control)

## IMPROVING ENERGY EFFICIENCY

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

## FEATURES

- Synchronous motor with electronic control unit and load-dependent cut-off
- Direction of operation and positioning time can be set using coding switches
- Crank handle for external manual adjustment with motor cut-off
- Very low operating noise
- Simple assembly with valve; spindle is automatically connected after nominal voltage is applied
- Electrical parallel operation of 5 actuators

## TECHNICAL DESCRIPTION

Power supply 24 V~/= or 230 V~  
Three-piece housing of flame retardant yellow/black plastic and seals with degree of protection IP54.

Maintenance-free gearbox made of plastic, threaded spindle and gearbox base-plates made of steel.

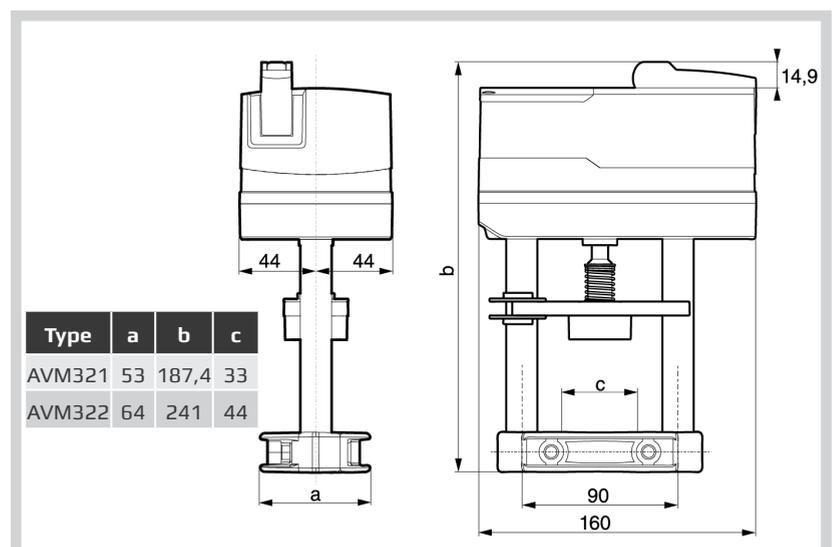
Patented actuator-valve coupling  
Mounting studs made of aluminium.  
Fixing bracket made of aluminium for the valve fitting with 20 mm and made of plastic for the valve fitting with 10 mm stroke.  
Electrical connections (max. 1.5 mm<sup>2</sup>) with screw terminals.  
Two break-out cable inlets for metric screw fitting made of plastic M20×1.5.  
Fitting position, vertically upright to horizontal, not upside down unless protected from dripping water.

## PRODUCTS

Type	Positioning time (s/mm)	Nominal stroke (mm)	Nominal voltage (V)
AVM321K001	12 (6)	10	230 V~
AVM321K002 <sup>*)</sup>	12 (6)	10	24 V~/=
AVM322K001	6 (12)	20	230 V~
AVM322K002 <sup>*)</sup>	6 (12)	20	24 V~/=

<sup>\*)</sup> CSA-certified actuators on request (only for devices with nominal voltage 24 V~/=)

## DIMENSION DRAWING



Subject to change without notice.

## TECHNICAL DATA

Power supply		
Operating voltage		
	24 V~	±20 %, 50...60 Hz
	24 V=	-10%...+20 %
	230 V~	±15 %, 50...60 Hz
Power consumption (at nominal voltage, with movement)		
AVM * K001	< 2.0 W	< 3.0 VA
AVM * K002	< 2.4 W	< 4.0 VA

Parameters	
Nominal force <sup>1)</sup>	1000 N
Operating noise <sup>2)</sup> (at nominal force)	< 30 dB(A)
Response time	Approx. 200 ms
Max. media temperature <sup>3)</sup>	0...100 °C

Admissible ambient conditions	
Operating temperature	-10...55 °C
Storage and transport temperature	-40...80 °C
Humidity	5...85% rh
	No condensation

- 1) Actuating power 1000 N under nominal conditions (24 V or 230 V, 25 °C ambient temperature, 50 Hz). With boundary conditions (19.2 V~ / 28.8 V~ / 21.6 V= / 28.8 V=, -10 °C / 55 °C, 60 Hz) and positioning time, the actuating tensile force is minimised to 800 N  
 2) Operating noise with the slowest positioning time, test distance 1m  
 3) Use the appropriate accessory when the temperature of the medium is > 100 °C (temperature adaptor).

## POWER CONSUMPTION AT NOMINAL VOLTAGE

Type	Positioning time (s/mm)	Status	Active power P (W)	Apparent power S (VA)
AVM * K001	6 (12)	Standstill *)	< 0,35	
		Sizing		≥ 5,0
AVM * K002	6 (12)	Operation	< 2,4	< 4,0
		Standstill *)	< 0,3	
	12 (6)	Sizing		≥ 4,0
		Operation	< 2,0	< 3,0

\*) Standstill = actuator in the end position, voltage applied to terminal 1 or 2, motor switched off.

## ACCESSORIES

Type	Description
1-0152285	Temperature adaptor for media temperature > 100 °C ... 240 °C
1-0147655	Cable glands M20×1.5 IP68

Installation	
Dimensions W x H x D (mm)	AVM321: 60x187x88 AVM 322: 160x241x88
Weight (kg)	AVM321: 1.5 AVM322: 1.6

Standards and directives	
Degree of protection	IP 54 (EN 60529)
Protection class	II EN60730 III EN60730

Additional information	
Fitting instructions	99.70.03
Declaration on materials and the environment	MD 51.374
Declaration of incorporation	P100012470
Manual & electrical connection diagram	99.70.05.01



## CE CONFORMITY

EMC Directive 2004/108/EC
EN 61000-6-1
15/9 H1F
EN 61000-6-2
EN 61000-6-3
EN 61000-6-4
Low-voltage Directive 2006/95/EC
EN 60730-1
EN 60730-2-14
Over-voltage category III
Degree of contamination II
Maximum altitude. 2000 m
Machinery Directive 2006/42/EC in accordance with Annex II B
EN 12100