

SM SERIES FAST RUNNING DAMPER ACTUATOR

**Modulating Control
20 Nm**

SM...20 (S) SERIES

SM standard valve actuator is specially designed and produced for applications in the HVAC Systems. Our wide range of Swisotec standard valve actuators has been developed to operate and position of valve in different sizes.



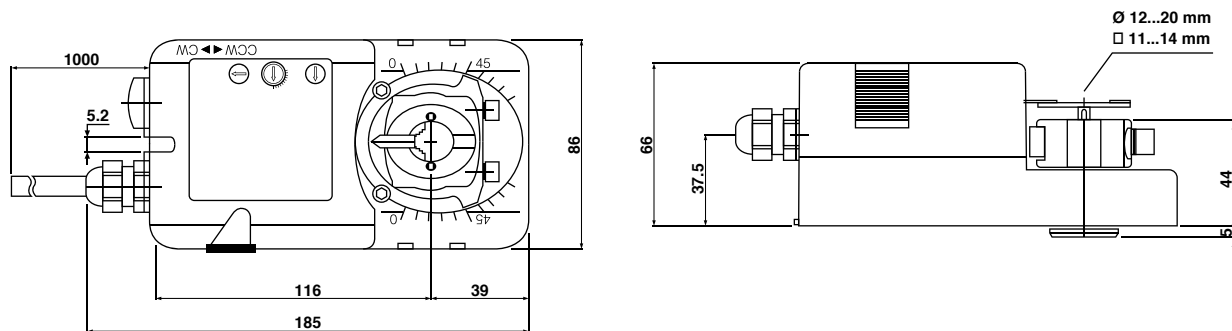
PRODUCT FEATURE

- Torque 20 Nm
- Power supply AC/DC 24V and AC 230 V
- Control Modulating DC 0(2)...10 V & 0(4)...20 mA
- Shaft dimensions - \varnothing 12...20 mm / \square 11...14 mm
- Minimum Shaft Length 40 mm
- Adjustable angle of rotation
- Selectable direction of rotation of reversing actuator
- Actuator with 1 m cable connection
- Optional 2 Adjustable SPDT auxiliary switches
- Manual Over-ride push button when required
- Collaborate with NVCB 9000 Bracket 1

MODEL SELECTION TABLE

MODEL / TYPE	TORQUE	POWER SUPPLY	RUNNING TIME	AUXILIARY SWITCHES
SM 1.1-20	20 Nm	AC/DC 24 V \pm 10%	20 Sec	-
SM 1.1-20S	20 Nm	AC/DC 24 V \pm 10%	20 Sec	2 x SPDT (Adjustable)
SM 2.2-20	20 Nm	AC 230 V \pm 10%	20 Sec	-
SM 2.2-20S	20 Nm	AC 230 V \pm 10%	20 Sec	2 x SPDT (Adjustable)

DIMENSION (mm)



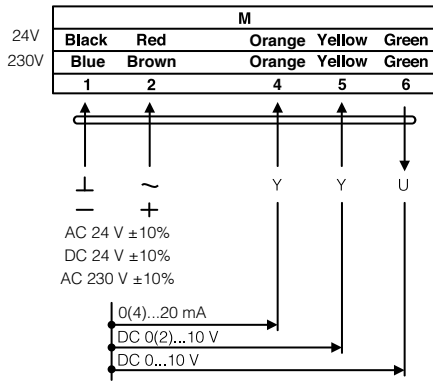
TECHNICAL SPECIFICATION

MODEL NUMBER	SM 1.1-20 (S)	SM 2.2-20 (S)
TORQUE	20 Nm	20 Nm
DAMPER SIZE	4.0 m ²	4.0 m ²
SHAFT DIMENSION	Ø 12...20 mm / □ 11...14 mm	Ø 12...20 mm / □ 11...14 mm
POWER SUPPLY	AC/DC 24 V ± 10%	AC 230 V ± 10%
FREQUENCY	50...60 Hz	50...60 Hz
CONTROL SIGNAL (INPUT)	DC 0(2)...10 V / 0(4)...20 mA	DC 0(2)...10 V
POSITION SIGNAL (OUTPUT)	DC 0...10 V	DC 0...10 V
POWER CONSUMPTION		
● OPERATING	8.0 W	8.0 W
● END POSITION	2.0 W	2.0 W
FOR WIRE SIZING	8.0 VA	8.0 VA
ELECTRICAL CONNECTION	1 m Cable	1 m Cable
AUXILIARY SWITCHES RATING	3 (1.5) A, AC 250 V	3 (1.5) A, AC 250 V
PROTECTION CLASS	Class II □	Class II □
ANGLE OF ROTATION	90° (95° mechanical)	90° (95° mechanical)
WEIGHT	1.2 Kg	1.2 Kg
LIFE CYCLE	60,000 Rotation	60,000 Rotation
SOUND LEVEL	45 dB	45 dB
IP PROTECTION	IP54	IP54
OPERATING TEMPERATURE	-20°...50° as per IEC 721-3-3	-20°...50° as per IEC 721-3-3
NON-OPERATING TEMPERATURE	-30°...+60° C / IEC 721-3-2	-30°...+60° C / IEC 721-3-2
AMBIENT HUMIDITY	5%...95% rH non condensing / EN	5%...95% rH non condensing / EN
MAINTENANCE	Maintenance Free	Maintenance Free
MODE OF OPERATION	Type I / EN 60730-1	Type I / EN 60730-1
EMC	CE & ISO 9000 EN / EEC	CE & ISO 9000 EN / EEC

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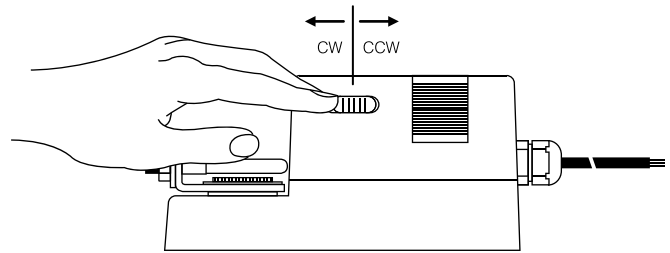
WIRING DIAGRAM SM...20 (S) POWER SUPPLY AC/DC 24V / AC 230V



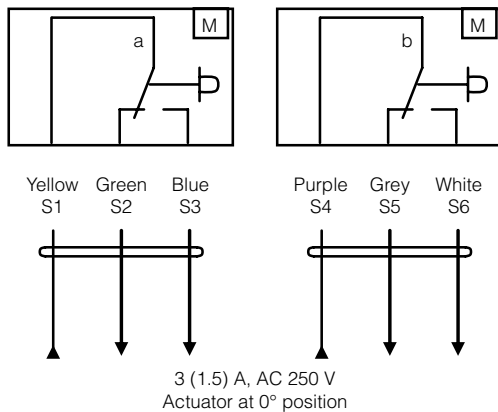
DIRECTION OF ROTATION SM...20 (S)

Default factory setting: CW.

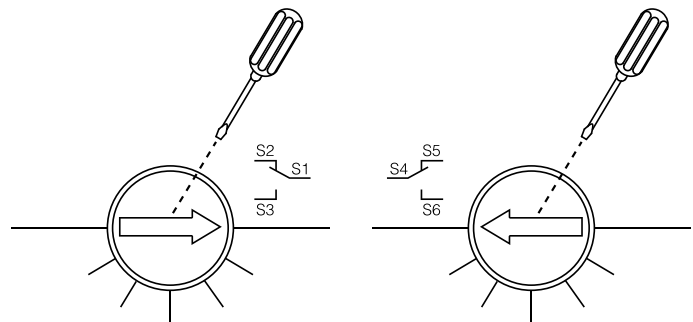
Direction of rotation can be change by toggling between CW/CCW switch on the actuator's housing.



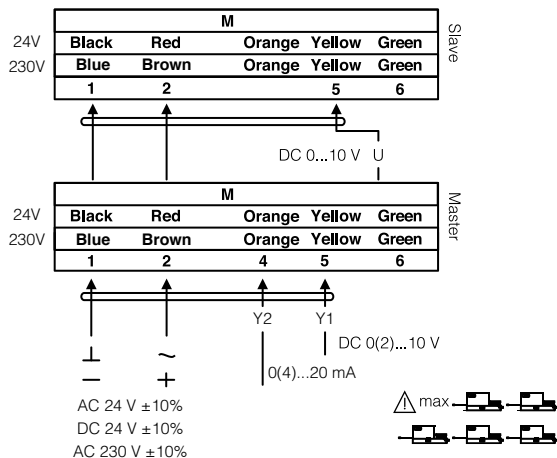
WIRING DIAGRAM SM...20 (S) AUXILIARY SWITCHES



AUXILIARY SWITCHES SM...20 (S)



WIRING DIAGRAM SM...20 (S) PARALLEL CONNECTION



REMARK

During parallel operation, the output signal (terminal 6, DC 0...10 V) of the master actuator must be connected to terminal 5 of the next slave actuator.

ADJUSTING CONTROL SIGNALS SM...20 (S)

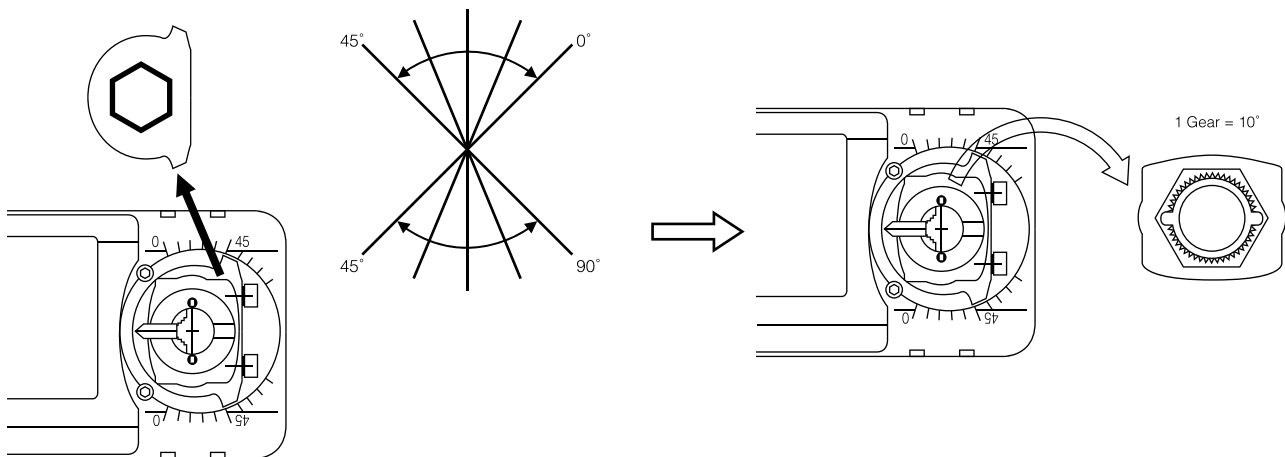
Control Signal 5 DC 0...10V
Input Resistance Ri100k Ohm

Factory Default Setting

Control Signal 5 DC 2...10V
Input Resistance Ri500k Ohm



On Request


ANGLE OF ROTATION LIMITING



IMPORTANT REMARK

For special requirement, consult your local Swisotec's representative.

  This actuator includes electrical and electronic components and may not be disposed as household garbage. Please consider the local valid legislation.

 AC / DC 24 V: Connect via safety isolating transformer.
AC 230 V: To isolate from the main power supply, the system must incorporate a device which disconnects the phase conductor (with at least a 3mm contact gap.)

The performance specifications are nominal and conform to acceptable industry standards. Swisotec shall not be liable for damages resulting from misapplication or misuse of its products.