

EDELWEISS Actuators

Electrical Explosion Proof actuators

Catalogue 2013

Series EXSMD – on/off 3 p.

-  *No spring return*
-  *Running time 20 sec.*
-  *16 Nm*
-  *Control ON/OFF, 3 point.*
-  *Power supply 230V AC, 24V AC, 24V DC*
-  *In according to EN 60079-0, EN60079-1, EN 60079-31*
-  *Zone 1, 2, 21, 22*

Applications

The EXSM actuators are intended for the operation of air control damper in ventilation and air condition system up to approx 3.2 m².

Features

The actuator moves the damper to its working position until it is powered. If the power supply is interrupted the motor locks the damper position. The actuator is overload protected. The actuator can be mounted directly on the damper shaft if square, 12 x 12 mm or 10 x 10 mm (adaptor included); Several mounting brackets are available for applications where the actuator cannot be directly coupled to the damper shaft.

Products range

ITEM	Belimo type	Auxiliary Switch
EXSM D G 123 0 L 000	SMD230A	None
EXSM D G 123 0 R 000		
EXSM D G 123 2 L 000	SMD230A+ S2A	2 x SPDT
EXSM D G 123 2 R 000		
EXSM D B 123 0 L 000	SMD24A	None
EXSM D B 123 0 R 000		
EXSM D B 123 2 L 000	SMD24A+ S2A	2 x SPDT
EXSM D B 123 2 R 000		

Options available on request:

Different angle of rotation
Different wiring length



0948

NEMKO 03 ATEX 1242X



II 2G Ex d IIC T6 Gb



II 2D Ex tb IIIC T67 °C

For zone 1, 2, 21, 22

The product may differ from the illustration

EX SMDG 123 0 L 000

Special series
000= Standard

Rotary direction
R=right
L= left

0= without-Auxiliary switch
2= with 2 Auxiliary switch

Control with single- / 2-wire
contacts ON - OFF or 3 Point

G= 100..240V ac
B= 24 ac / dc

Motor Type

Series
EX= Explosion Proof

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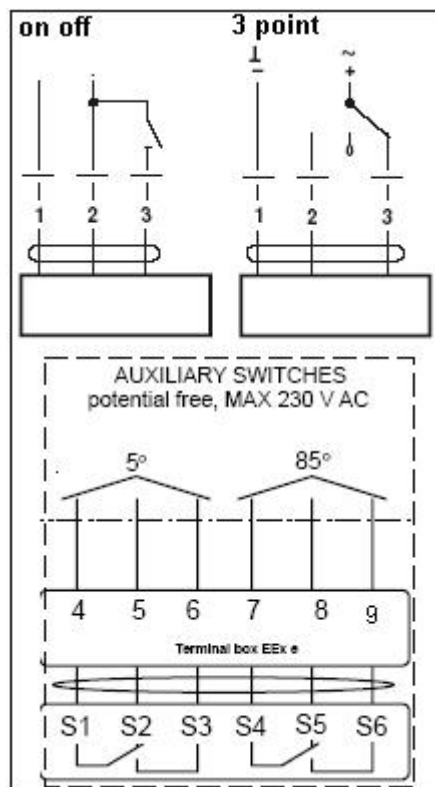
Series EXSMD – on/off 3 p.

Technical data	
Torque	16 Nm
Control Mode	ON/OFF, 3 point.
Rotation angle	95°
Running time	20 Sec.
Ambient temperature	-20°C + 50°C
Degree of protection	IP66
Housing material	Aluminium baked varnish
Maintenance	None
Fastening	Terminal block in Ex e box
Wiring length	1 m. cable
Weight	5.5 kg
Auxiliary micro switches	3A (0,5A) max 250 V ac Switching point at 5° e 85°
EMC	CE according to 2004/108/EC
Low voltage directive	CE according to 2006/95/EEC
Halogen – Free wiring	According to IEC 60332-1/3 and According to IEC 60754-1/2

Technical data	
EXSMD G Version	
Power supply	100..240 VAC 50/60Hz
Nominal voltage range	AC 85...265 V
Power consumption: running	4,5 W
At rest	1,0 W
Sizing	8.0 VA

EXSMD B Version	
Power supply	AC 24 V 50/60 Hz, DC 24 V
Nominal voltage range	AC 19,2...28,8 V DC 21,6...28,8 V
Power consumption: running	4,0 W
At rest	0,5 W
Sizing	6.5 VA

Electric diagram



NOTE:

- Read the note about the use and torque requirements of the damper manufacturer
- All electrical wirings must be according to local standards.
- Electrical connections by power off only.
- Ex e junction box must not be opened under any circumstances when the power is on.
- Actuator cable must be installed in a fixed position and protected against damage.
- Avoid excessive vibrations.
- Before switching-on, check that no other equipment is damaged and make sure that supply voltage corresponds with the Actuator's specification.
- Before switching-off check for possible effects on other equipments.
- The Actuator cannot and is not to be opened to guarantee explosion proof and warranty.
- For any problem contact Edelweiss Actuators.
- The equipment shall be marked "X" since flameproof joint is other than the relevant minimum or maximum according to CEI EN 60079-1. Information on dimension of flameproof joints available at Edelweiss Actuators.srl
- Equipment has permanently connected cable. Free end of the cable should be connected to the Ex-protected junction box, according to any type of protection from IEC 60079-0 or outside the hazardous area.

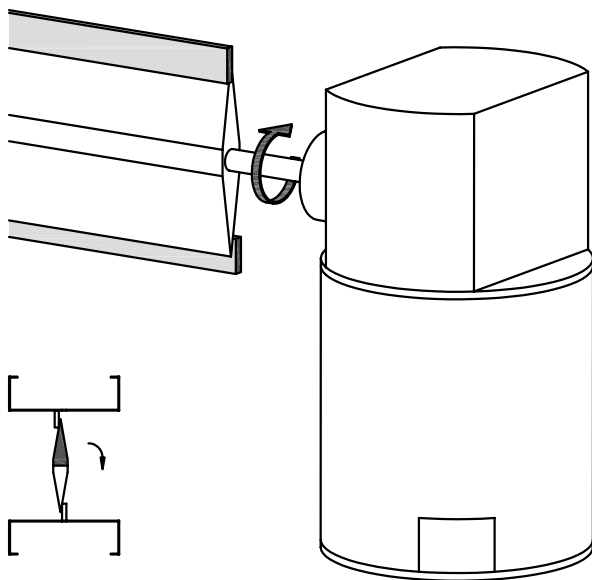
Rotary Direction "R" For Damper normally closed N.C.

MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

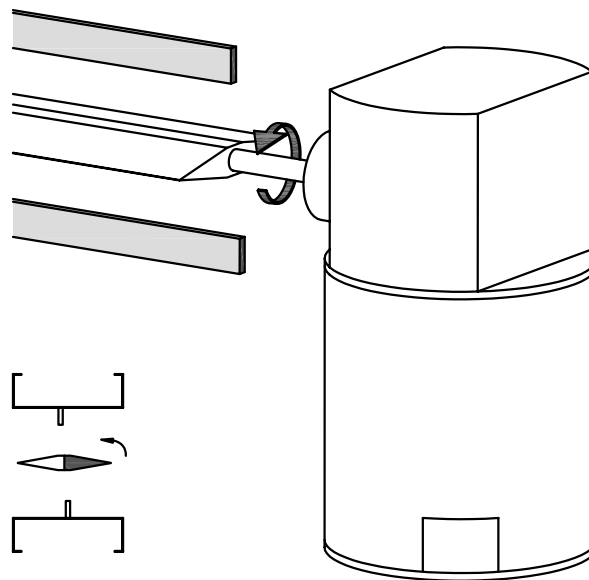


MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V



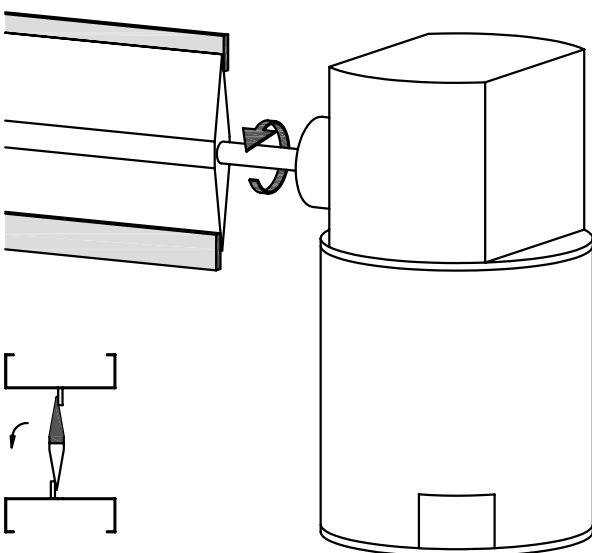
Rotary Direction "L" For Damper normally closed N.C.

MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

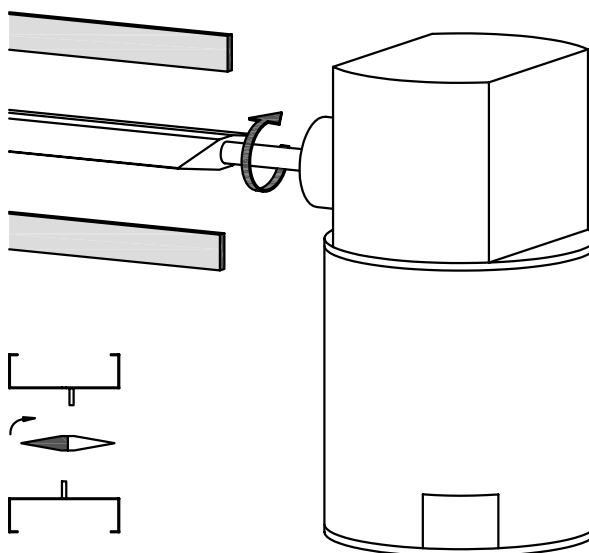


MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V



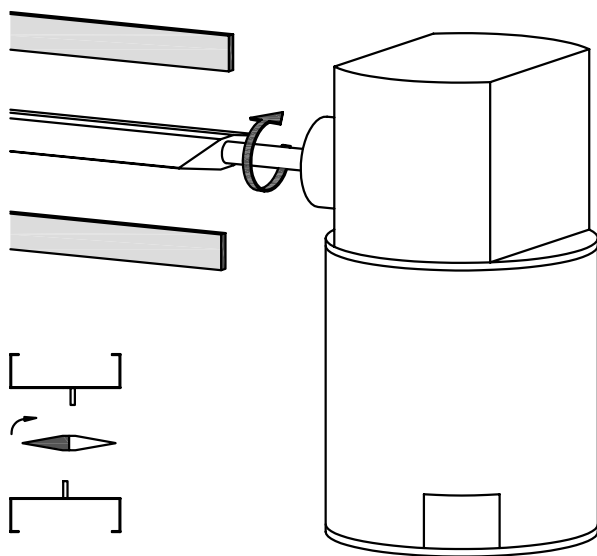
Rotary Direction "R" For Damper normally open N.O.

MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

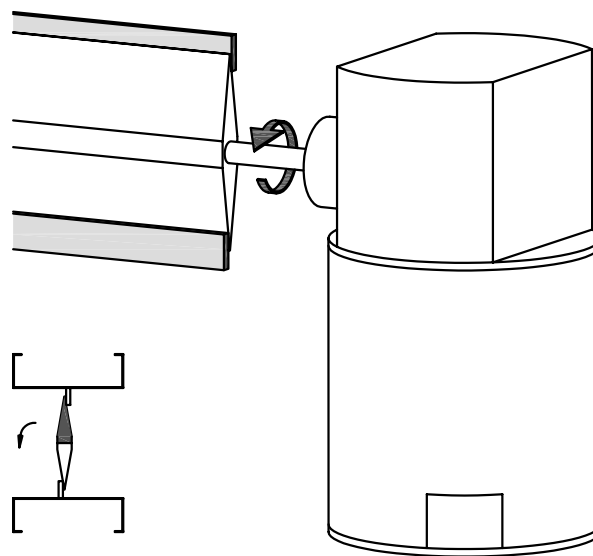


MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V



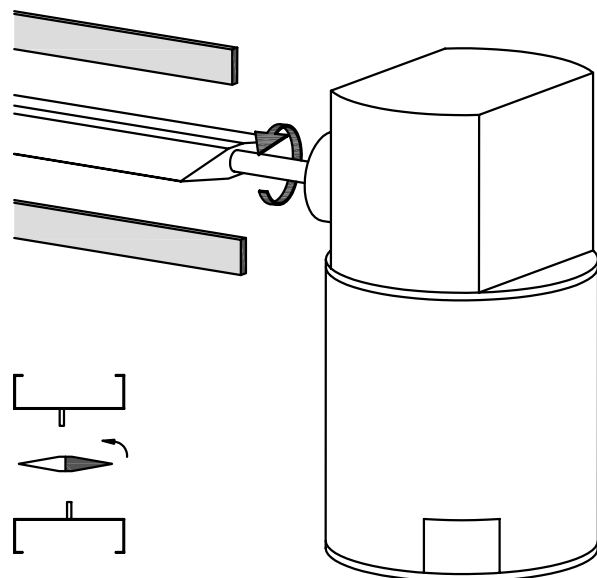
Rotary Direction "L" For Damper normally open N.O.

MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

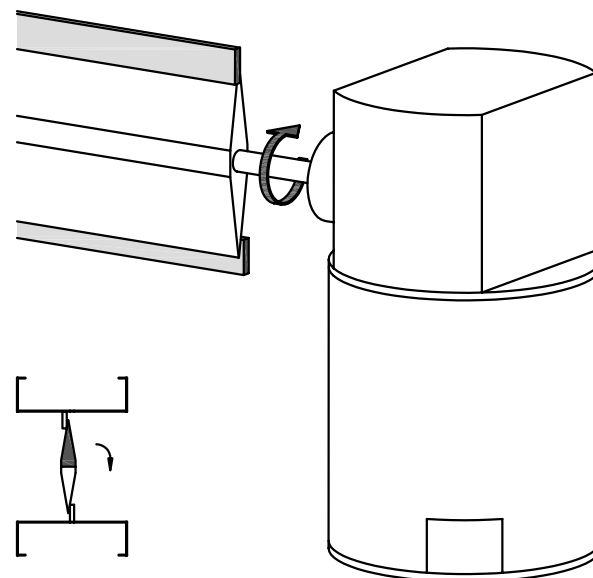


MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V



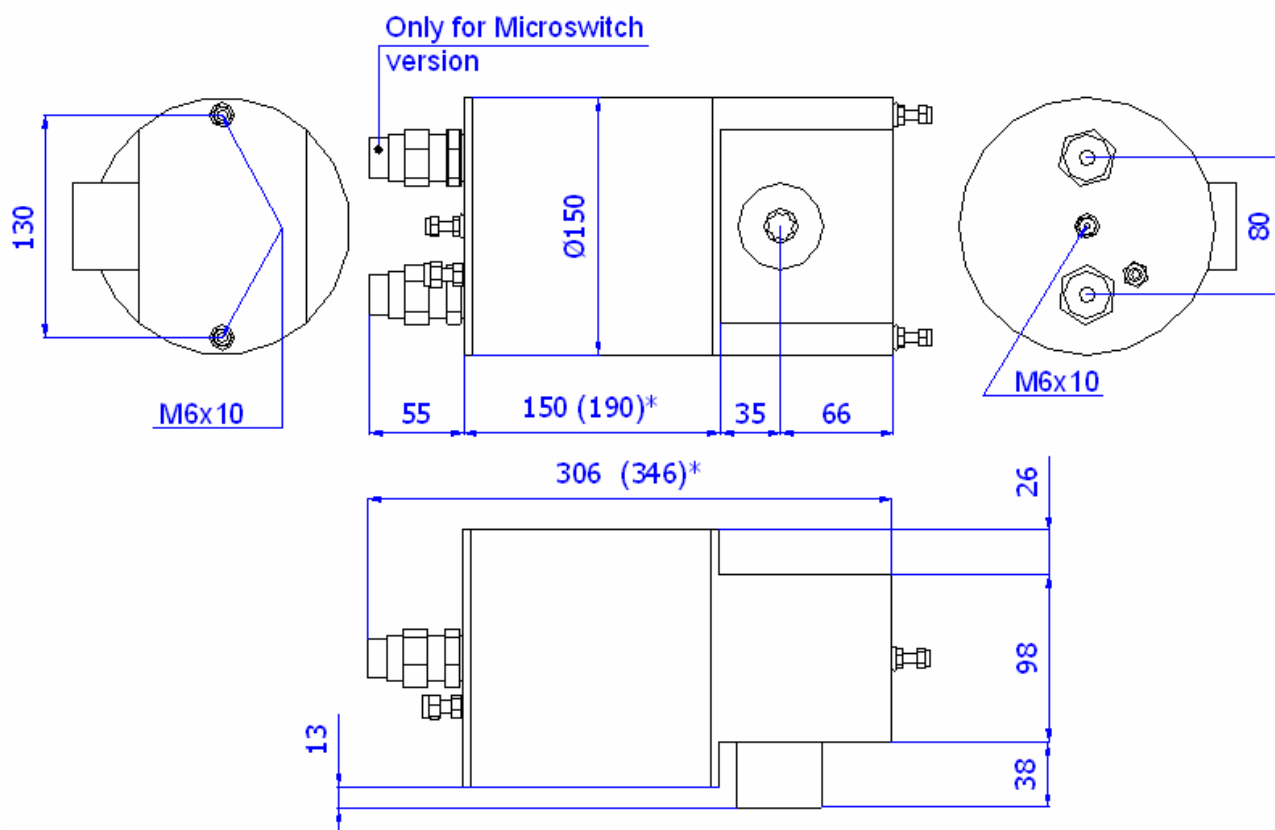
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Dimensions and Mounting instructions

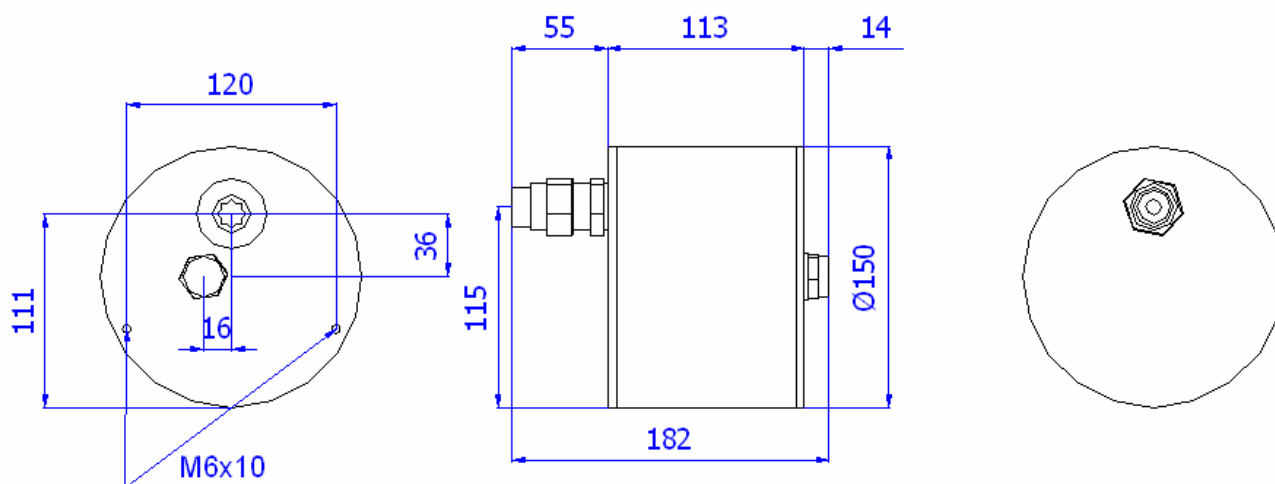
EXAF - EXBF - EXBE - EXBG - EXSM - EXAM - EXSM - EXSMD



*= Only series EXAF, EXBF, EXBG, EXBE

Note: dimension are specified in millimeters

EXNM



Note: dimension are specified in millimeters

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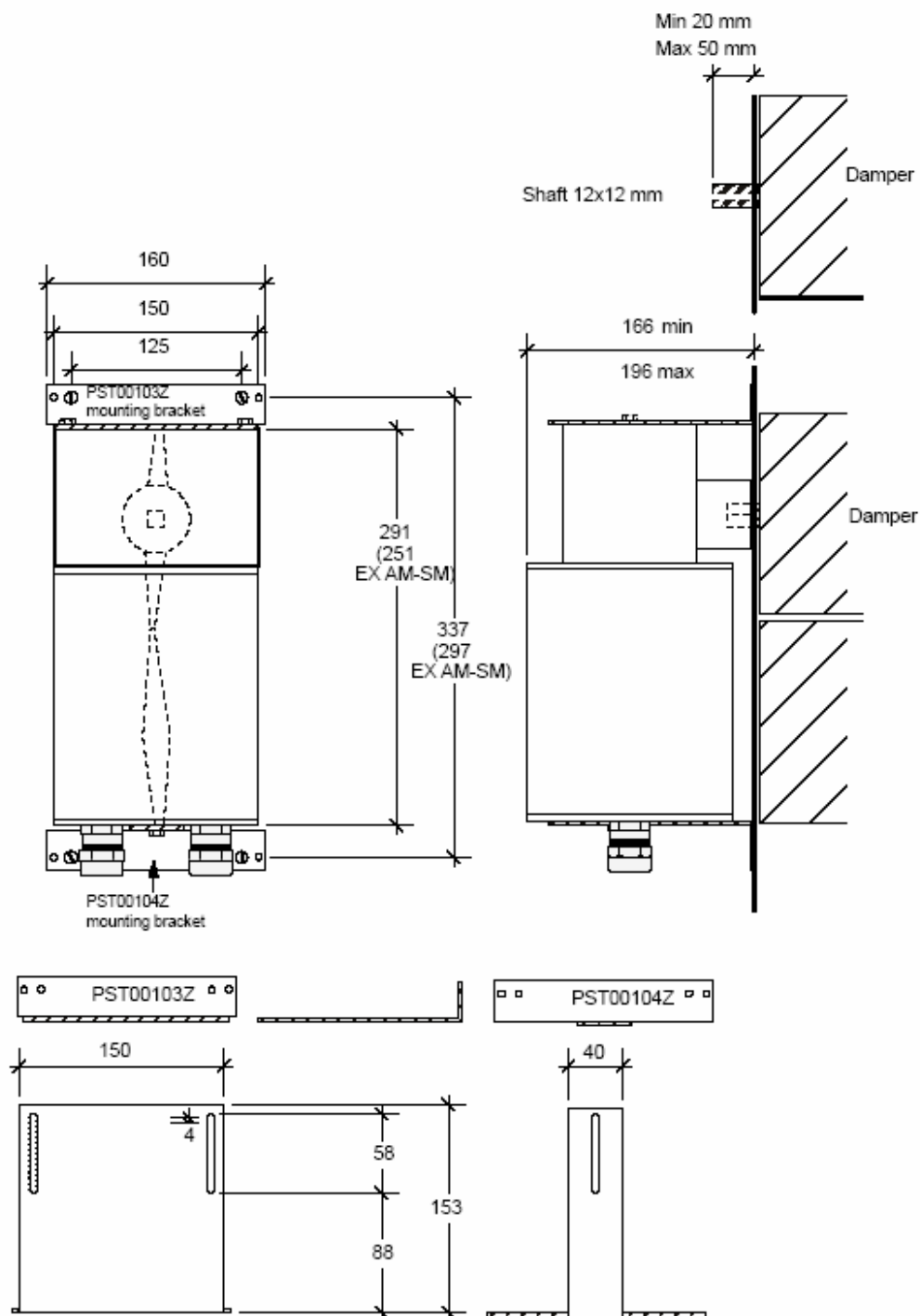
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Dimensions and Mounting instructions

EXAF - EXBF - EXBE - EXBG – EXSM - EXAM - EXSM - EXSMD

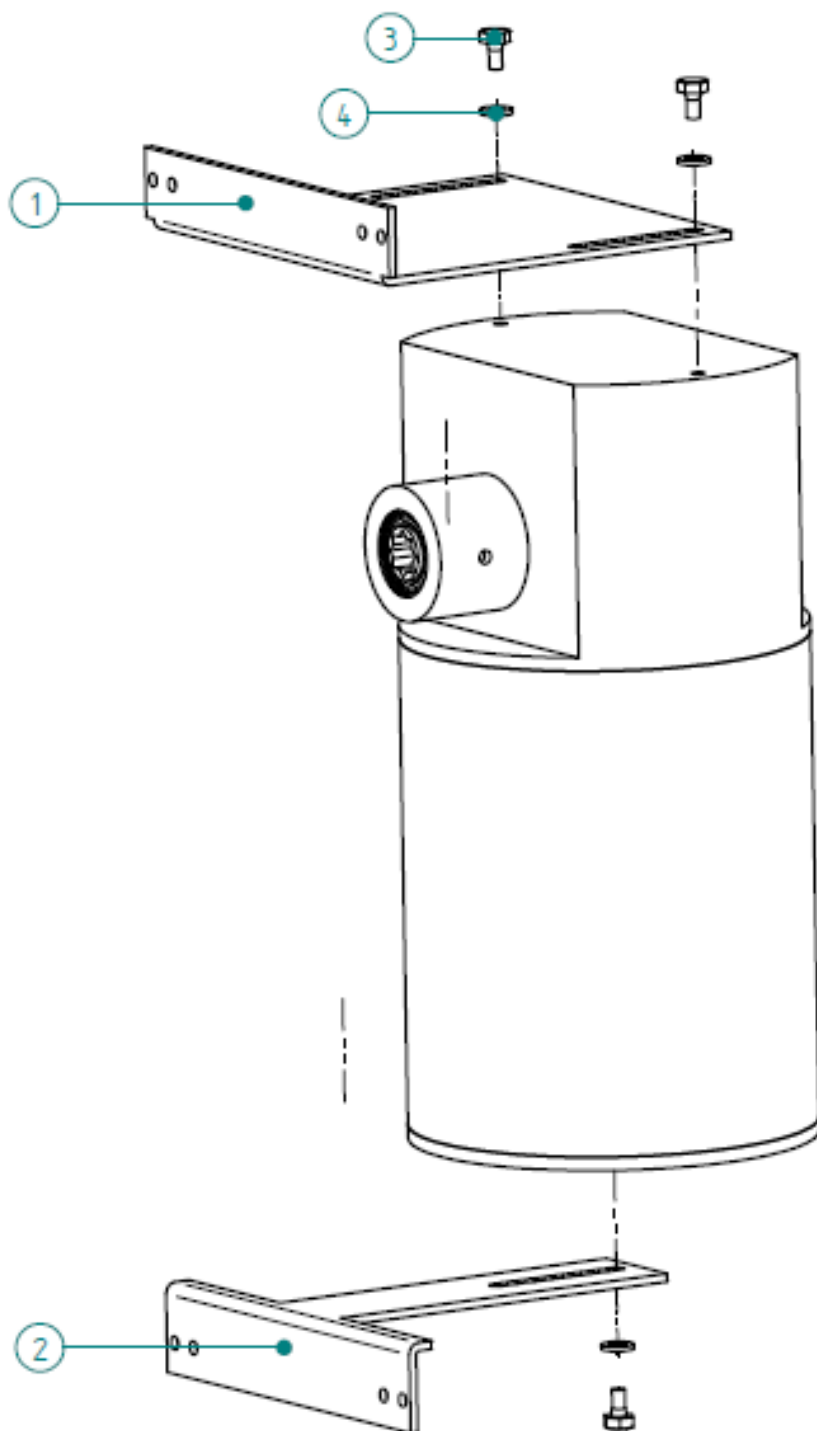
Direct mount on square shaft, 12 x 12 mm



EDELWEISS *Actuators*

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n°	Code-Description
1	PST00103Z
2	PST00104Z
3	TDE M6X10
4	Flat washer

Mount the bracket as shown in the picture above.

Threaded hole depth: 8mm. Do not replace standard screws with other one; or ensure that screws does not penetrate more than 7mm into the enclosure.

Flat washer dimension : Di= 6,4mm De=12mm h=1,6mm