



# Actuators

## Electrical Explosion Proof actuators

Catalogue 2008

### Series EXNM – Modulating

- No spring return*
- Running time 35 sec*
- 10 NM*
- Working field 2...10V (standard)*
- Power supply 24V ac, 24V dc*
- In according to EN 50014, EN 50018*
- Zones 1, 2, 21, 22*

#### Applications

The EXNM actuators are intended for the operation of:

- Modulating control ball valves
- Air control Damper in ventilation and air condition system up to approx 2m<sup>2</sup>.

#### Features

Just powered, the actuator moves the damper to its start position, then it moves to the position set by the control signal. If the control signal is interrupted the motor return to the original 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
EXNM C B MF2 0 L 000	NMC24A-MF
EXNM C B MF1 0 L 000	NMC24A-MF
EXNM C B MF5 0 L 000	NMC24A-MF

Several Junction Boxes available, see pages 37 or 38  
For ROTARY direction see page 42 or 43  
on "Edelweiss catalogue 2008"

#### Options available on request:

Different angle of rotation  
Different wiring length



EEx d IIC T6

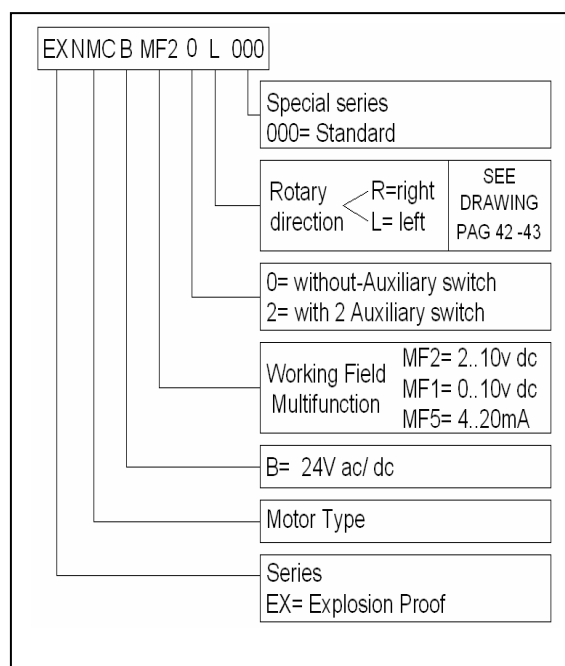
CENELEC  
EN 50014/50018  
Approvato CESI  
EX-99.E.059

**CE**

**NEMKO 0470**  
03ATEX1242

**Ex II 2GD EEx d IIC T6**  
For zone 1, 2, 21, 22

The product may differ from the illustration





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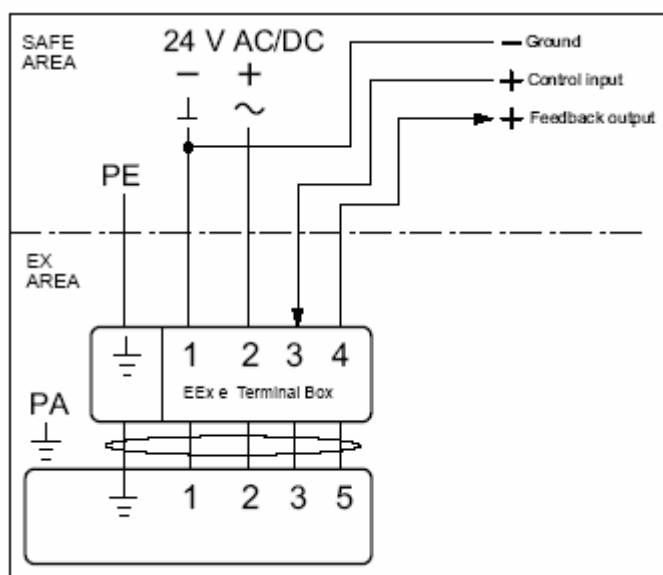
Technical data			
Torque	10 Nm	Power supply	AC/DC 24V 50/60 Hz
Control Mode	see table below	Nominal voltage range	AC 24V±20%V DC 24V+20% -10%
Working Field	see table below	Power consumption: running	4,0 W
Feedback	see table below	At rest	1,5 W
Angle of rotation	95°	Sizing	7,0 VA
Running time	35 Sec.		
Ambient temperature	-20°C + 50°C		
Degree of protection	IP66		
Housing material	Aluminium baked varnish		
Maintenance	None		
Fastening	Terminal block in EEx e box (optional)		
Wiring length	1m. cable		
Weight	5.5 Kg		
EMC	CE according to 2004/108/EC		
Low voltage directive	CE according to 73/23/EEC		
Halogen – Free wiring	According to CEI 20-37 and According to IEC 60754-1/2		

#### Attention:

Only with MFT multifunction technology :  
Running time motor 35 s adjustable  
Control DC 0...10 V, 0...32 V adjustable  
Operating range DC 2...10 V, 0...32 V (adjustable)  
Position feedback DC 2...10 V, 0...10V, (adjustable)

Table	MF1	MF2	MF5
Control Mode	DC 0...10V	DC 0...10V	4...20mA
Working Field	DC 0...10V	DC 2...10V	4...20mA
Feedback	DC 0...10V	DC 2...10V	DC 2...10V

#### 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.
- EEx 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 guarantee explosion proof and warranty.
- For any problem contact your supplier.



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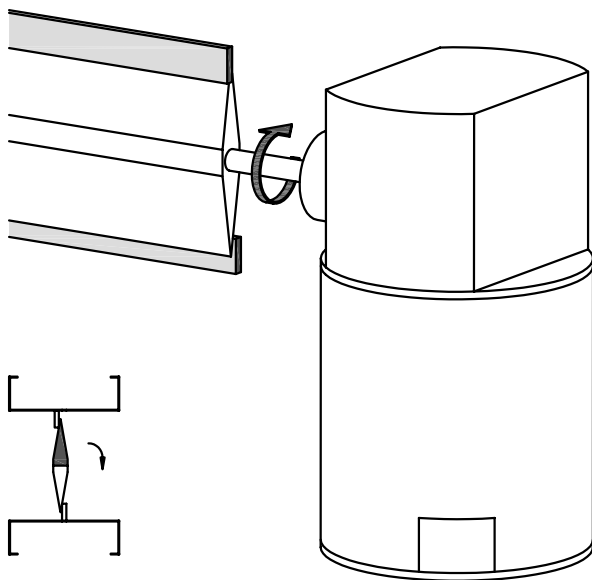
Rotary Direction "R" For Damper normally closed N.C.

MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

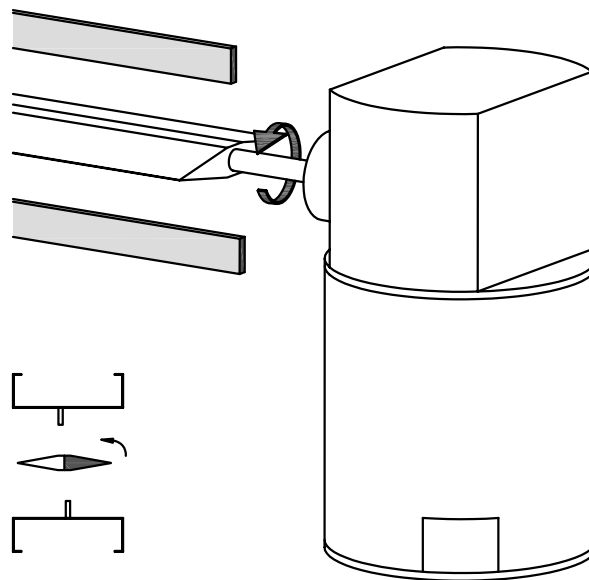


MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V



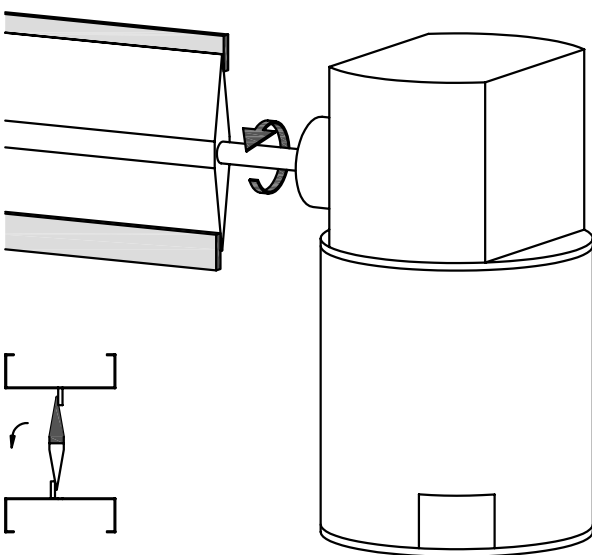
Rotary Direction "L" For Damper normally closed N.C.

MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

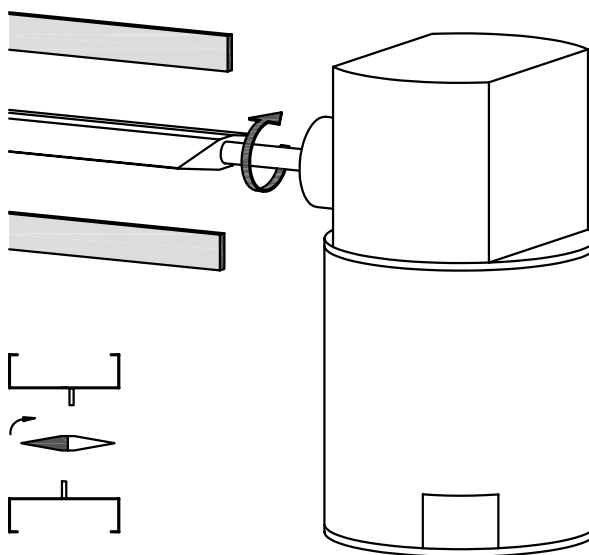


MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V





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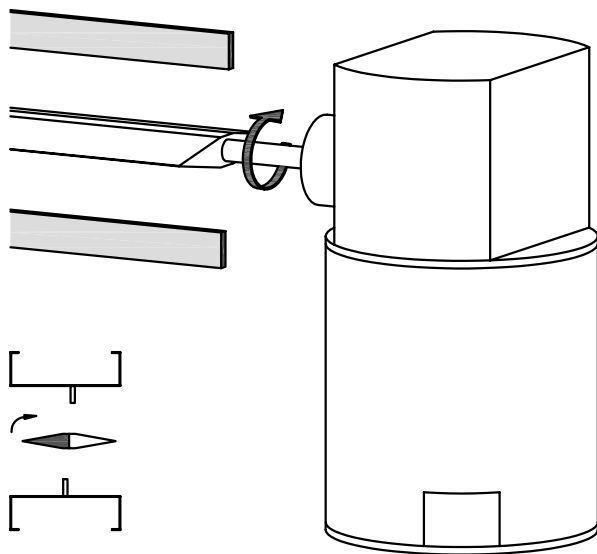
Rotary Direction "R" For Damper normally open N.O.

## MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

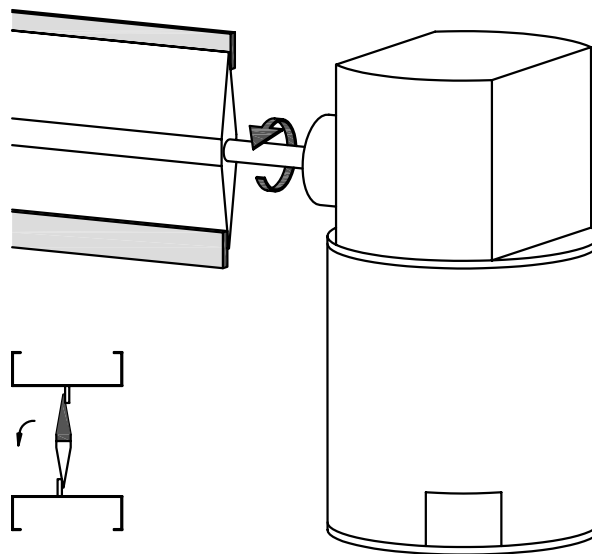


## MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V



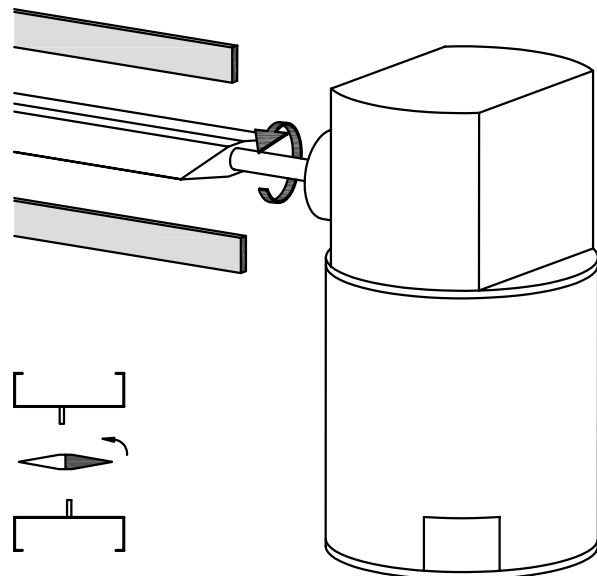
Rotary Direction "L" For Damper normally open N.O.

## MOTOR

Power: ON

Power: on WIRE 2

Control: 2...10V

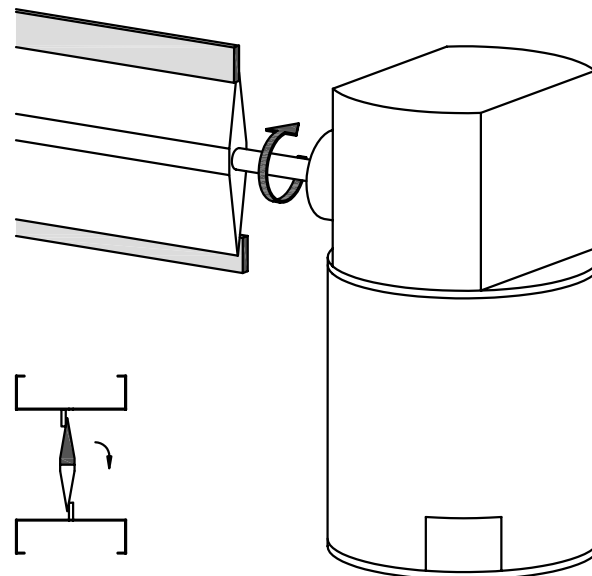


## MOTOR or SPRING RETURN

Power: OFF

Power: on WIRE 3

Control: 10...2V





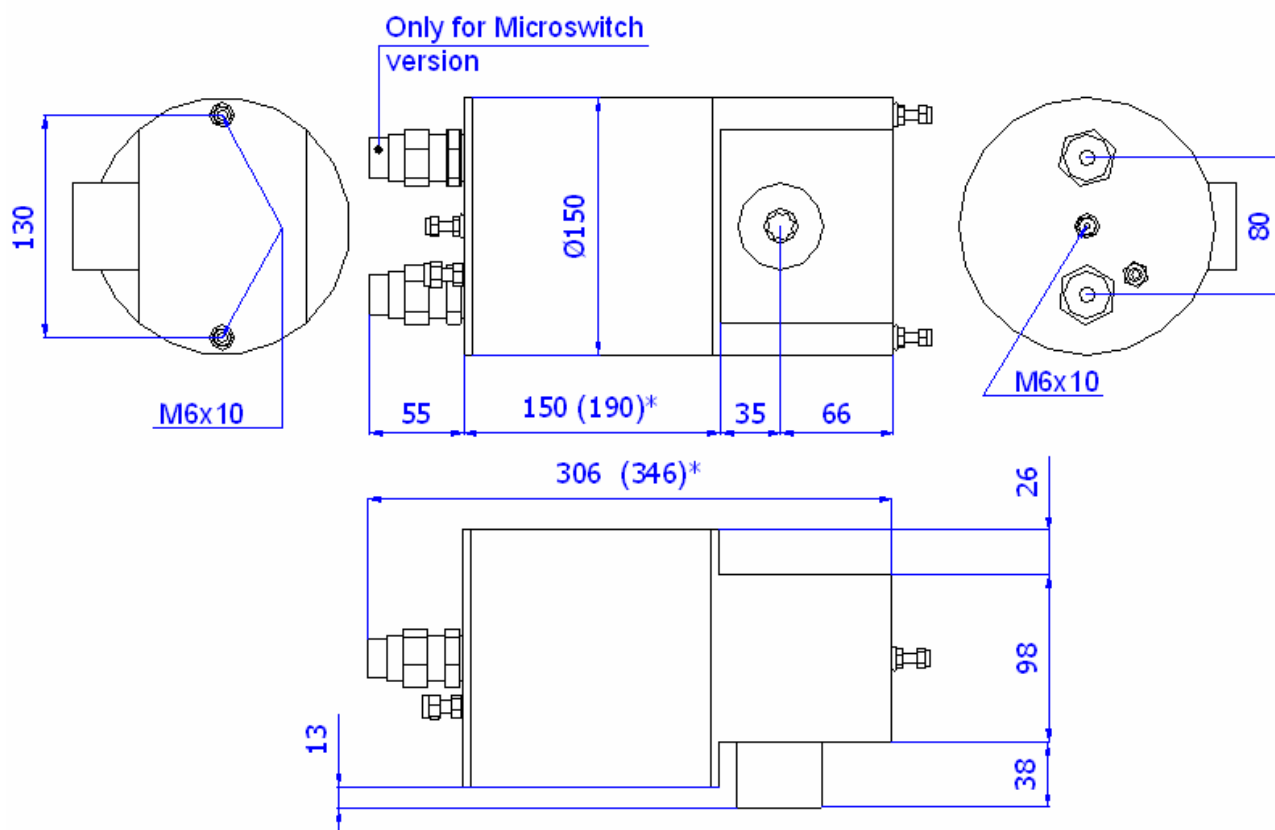
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Dimensions and Mounting instructions

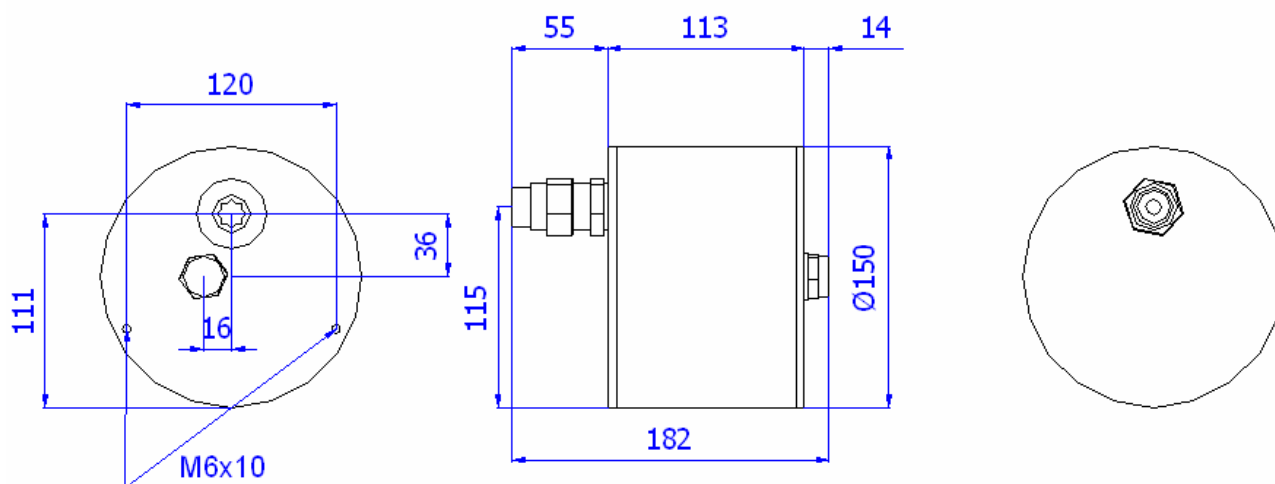
EXAF - EXBF - EXBE - EXBG - EXSM - EXAM



\*= Only series EXAF, EXBF, EXBG, EXBE

Note: dimension are specified in millimeters

EXNM



Note: dimension are specified in millimeters



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Dimensions and Mounting instructions

EXAF - EXBF - EXBE - EXBG – EXSM - EXAM

Direct mount on square shaft, 12 x 12 mm

