

Actuators for fire and smoke shutters 15Nm Spring return actuators 2 points control



- Lufberg presents 15 NM actuator designed specifically for fire and smoke applications.
- The actuator motorized the damper or other devices when power on and spring back to it original position when power is cut off or trip by the thermal sensor.

Advantages

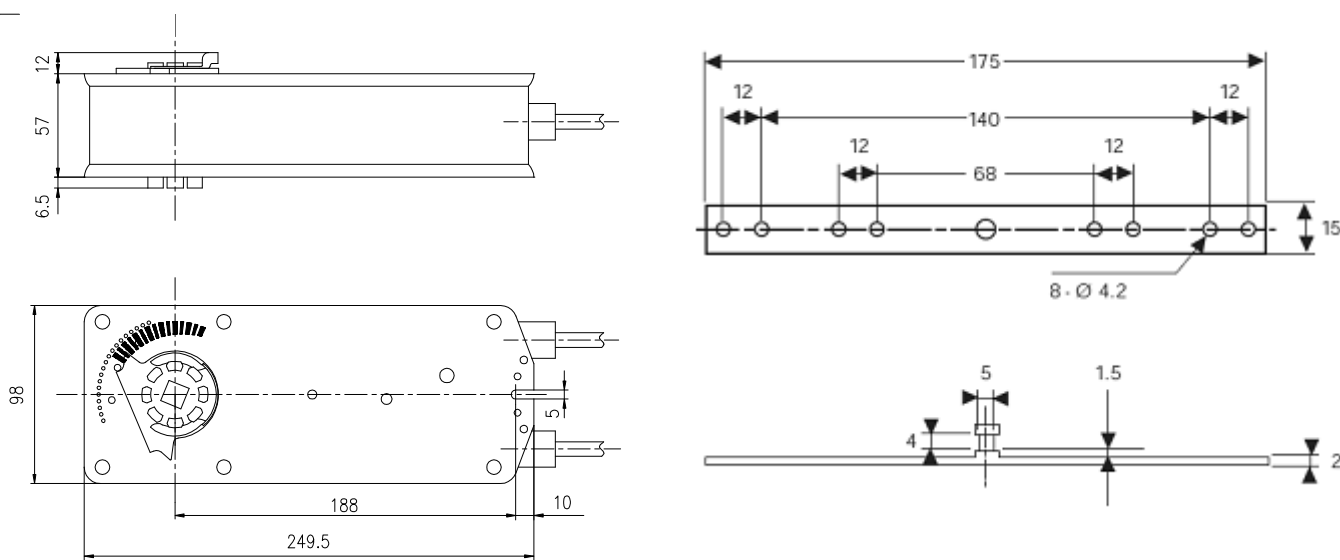
- 2 points on/off control
- Simply application by multi-purpose adapter for:
 - 2 Square bars with dimensions 12 mm.
- Manual Over ride by crank handle when required
- Low level of noise in operation
- Anti-rotation bracket provided for stability
- Selectable direction of rotation by reversing actuator
- 2 SPDT Fixed auxiliary switches as standard
- Low energy intensity in the final position
- Thermal Sensor when requested
- Manual over ride by crank handle when required
- Equipped by cable 1m

Selection model table

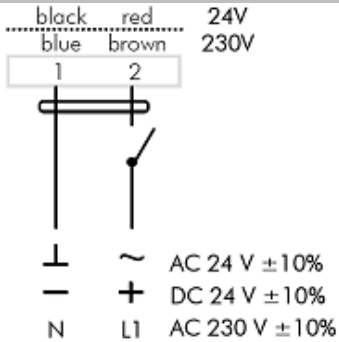
Torque	Runing time	Shutter 's area	Voltage	Auxiliary switches	Model
15 Nm	180 sec Spring return <35 sec	max 3m ²	24V AC/DC	2 SPDT*	FS15S24S
				2 SPDT* + thermosensor	FS15S24ST
			230V AC	2 SPDT*	FS15S220S
				2 SPDT* + thermosensor	FS15S220ST

*SPDT (Single-Pole Double-Throw) - monopolar group of switching contacts

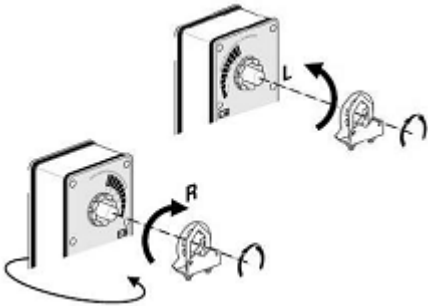
Dimensions and connecting dimension (mm)



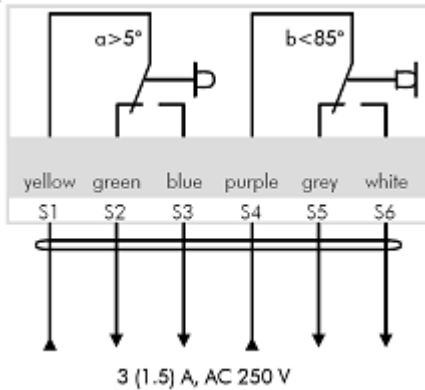
Wiring diagram



Change of direction of the rotation



Auxiliary switches



Technical specification

Model	FS15S24...	FS15S220...
Torque	15Nm/15Nm	15Nm/15Nm
Shutter's area	3m ²	3m ²
Voltage	24V AC/DC	230V AC
Frequency	50/60 Hz	50/60 Hz
Required performance:		
- turning:	6 W	6,5 W
- extreme points:	2.5 W	2,5 W
Computation power	10.0 VA	10.0 VA
Turning angle	-5~90°	-5~90°
Adjustment of angle	5°~85° (5° step)	5°~85° (5° step)
Required voltage for auxiliary switches	3 (1.5)A/230V	3 (1.5)A/230V
Weight	3,1 kg	3,1 kg
Noise (at work), 1m	<50 dB(A) engine <62 dB(A) spring return	<50 dB(A) engine <62 dB(A) spring return
Control signal	2 points	2 points
Feedback signal	no	no
Connection cable	1 m	1 m
Level of protection	IP54	IP54
Protection class	III (Safety Low Pressure)	II (all insulated)
Life cycles	60000 cycles	60000 cycles
Outside temperature	-30~+50 °C	-30~+50 °C
Suitable humidity	5~95%, Without condensation	5~95%, Without condensation
Standards	CE, ISO9000, GOST	CE, ISO9000, GOST
Assembling methods	Non specified	Non specified



- When torque calculated is necessary to consider the technical information from producer of the air shutter especially voltage, type and place of installation, technical requirements of flowing air.
- Actuator is allowed to be moud and used with voltage condition only when all requirements mentioned in charter have met.
- Actuator Is allowed to used only with conditions met in the class of protection required by producer

Thermal Sensor

- Thermal Sensor consist of both Ambient (TS1) and Duct sensor (TS2).
- TS1 will trip open when the ambient temperature rise above 72°C.
- TS2 will trip open when the duct temperature rise above 72°C.

