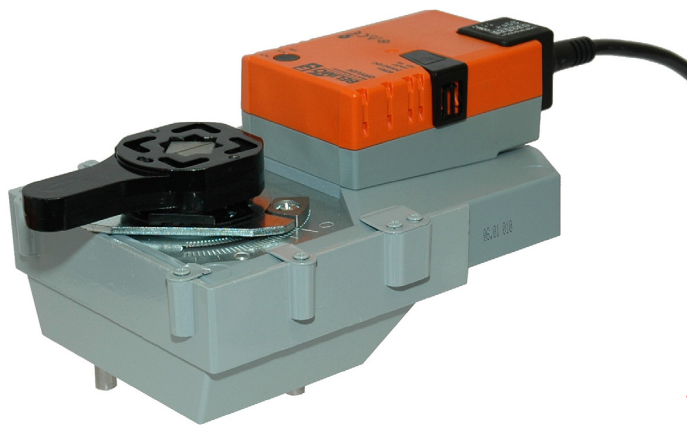


Rotary actuator for LONWORKS®
for butterfly valves

- Torque 40 Nm
- Nominal voltage AC/DC 24 V
- Communications via LONWORKS® (FTT-10A)
- Conversion of sensor signals
- Integrated temperature controller



Technical data

Electrical data

Nominal voltage	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	Operation 4.5 W @ nominal torque
	At rest 1.5 W
	For wire sizing 7 VA
Connection	Cable 1 m, 6 x 0.75 mm ²

Data for LONWORKS®

Certified	in accordance with LONMARK® 3.3
Processor	Neuron 3150
Transceiver	FTT-10A, compatible with LPT-10
Functional Profile as per LONMARK®	Damper actuator object #8110 Open Loop Sensor Object #1 Thermostat Object #8000
LNS plug-in for actuator / sensor / controller	Can be run with any LNS-based integration tool (min. for LNS 3.x)
Service button and status LED	in accordance with guidelines LONMARK®
Conductors, cables	Conductor lengths, cable specifications and topology of the LONWORKS® network in accordance with the ECHELON® guidelines

Functional data	Factory settings	Variable	Setting
Torque (nominal torque)	Min. 40 Nm @ nominal voltage	25%, 50%, 75% reduced
Uni-rotation	±5%		
Running time	90 s / 90° \triangleleft	90 ... 290 s
Automatic adjustment of running time, operating range and measuring signal U to match the mechanical angle of rotation	Manual triggering of the adaption by pressing the «Adaption» button or with the PC-Tool	Automatic adaption whenever the supply voltage is switched on, or manual triggering
Angle of rotation limiting	MAX (maximum position) = 100% MIN (minimum position) = 0% ZS (intermediate position, only AC) = 50%	MAX = (MIN + 30° \triangleleft) ... 100% MIN = 0° ... (MAX - 30° \triangleleft) ZS = MIN ... MAX
Sound intensity	Max. 45 dB (A)	With a running time of 75 s = 50 dB (A) 290 s < 40 dB (A)	
Position indication	Mechanical, pluggable		

Safety

Protection class	III Safety low voltage
Degree of protection	IP54 in any mounting position
EMC	CE according to 2004/108/EC
Mode of operation	Type 1 (acc. to EN 60730-1)
Rated impulse voltage	0.8 kV (acc. to EN 60730-1)
Control pollution degree	3 (acc. to EN 60730-1)
Ambient temperature	+0 ... +50 °C
Medium temperature	-20 ... +100 °C in the butterfly valve
Non-operating temperature	-40 ... +80 °C
Ambient humidity range	95% r.h., non-condensating (EN 60730-1)
Maintenance	Maintenance-free

Technical data (continued)

Dimensions / Weight

Dimensions	See «Dimensions» on page 3
Weight	Approx. 2500 g



Safety notes



- The rotary actuator was designed for use in stationary, heating, ventilation and air conditioning systems and may not be used outside of the specific field of application, especially in aircraft or in any other airborne means of transport.
- They may only be installed by suitably trained personnel.
Any legal regulations or regulations issued by authorities must be observed during assembly.
- The switch for changing the direction of rotation may only be operated by authorised personnel.
- The device may only be opened at the manufacturer's site. It does not contain any parts that can be replaced or repaired by the user.
- The cable must not be removed from the device.
- The device contains electrical and electronic components and is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product features

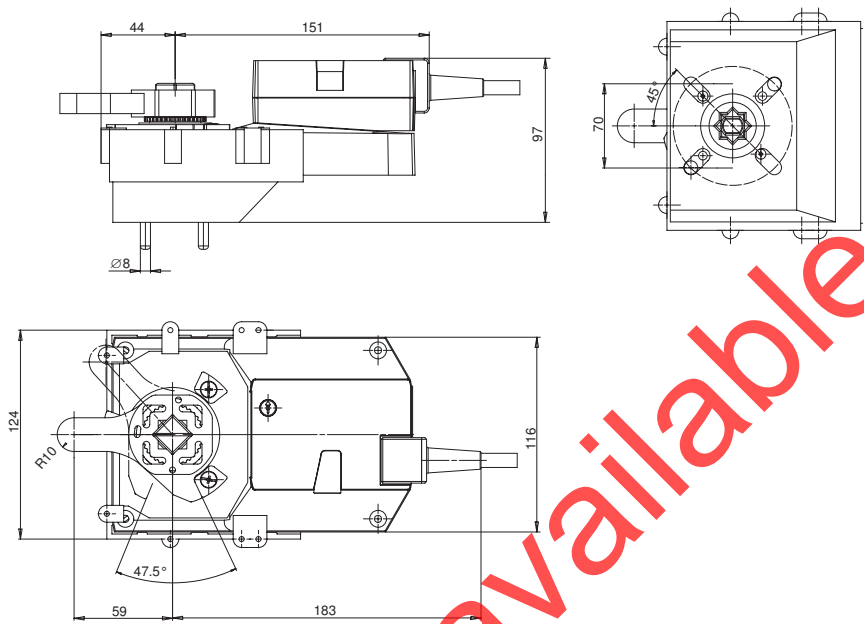
Mode of operation	The actuator is equipped with an integrated interface for LONWORKS®. The actuator can be connected and controlled directly with LONWORKS® via transceiver FTT-10A.
Converter for sensors	Connection option for a sensor (passive or active sensor or switching contact). In this way, the analogue sensor signal can be easily digitised and transferred to LONWORKS®.
Integrated temperature controller	The actuator has an integrated temperature controller (Thermostat Object LONMARK® #8060). This makes it easy to implement individual room control solutions. The temperature controller can be set using the LNS Plug-In available from Belimo.
Parameterisable actuators	The factory settings cover the most common applications. As desired, individual parameters can be adapted for specific systems or servicing with an MFT parameterisation device (e.g. PC-Tool MFT-P).
Simple direct mounting	Straightforward direct mounting on the ball valve with only one screw. The assembly tool is integrated in the plug-in position indication. The mounting position in relation to the ball valve can be selected in 90° steps.
Manual override	Manual control with pushbutton possible - temporary, permanently The gear is disengaged and the actuator decoupled for as long as the button is pressed / latched.
Adjustable angle of rotation	Adjustable angle of rotation with mechanical end stops.
High operational reliability	The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
ISO 5211 - F07 Butterfly valve D6..	For BELIMO F07 butterfly valve D6 and other dampers with the following mechanical specifications: - Square stem head (17 mm) for form-fit attachment of the rotary actuator. - Hole circle (d = 70 mm) for assembly with the butterfly valve.
Home position	When the supply voltage is switched on for the first time, i.e. at commissioning or after pressing the "gear disengagement" switch, the actuator moves to the home position. Factory setting: Y2 (counter-clockwise rotation)

Rotary actuator	Rotary valve
 Y2	A - AB = 0%
 Y1	A - AB = 100%

The actuator then moves into the position defined by LONWORKS®.

Dimensions [mm]

Dimensional drawings



Product no longer available

Further documentations

- Complete overview of actuators, water
- Data sheets for characterised control valves
- Installation instructions for actuators or ball valves, respectively
- Notes for project planning (hydraulic characteristic curves and circuits, installation regulations, commissioning, maintenance, etc.)