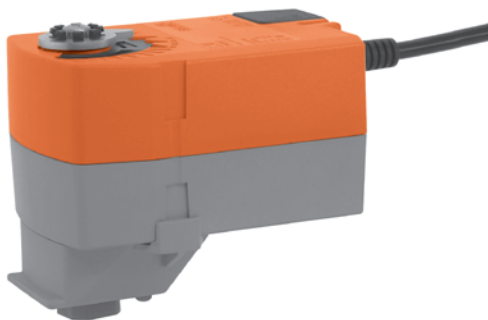


3-point rotary actuator with emergency control function for 2- and 3-way characterized control valves

- Torque 1.6 Nm
- Nominal voltage AC 24 V
- Control: 3-point
- TRFD24-2: Deenergised NC
- TRFD24-2-O: Deenergised NO



### Technical data

<b>Electrical data</b>	Nominal voltage	AC 24 V, 50/60 Hz
	Power supply range	AC 19.2 ... 28.8 V
	Power consumption	Spring return 2.5 W at nominal torque
	Holding position	1 W
	For wire sizing	4 VA
	Connection	Cable 1 m, 4 x 0.75 mm <sup>2</sup>
<b>Functional data</b>	Parallel connection	Yes (Note performance data for supply!)
	Torque (nominal torque)	Motor Min. 1.6 Nm at nominal voltage
	Spring return	Min. 1.6 Nm
	Direction of rotation	Motor Adjustable with switch ↺ resp. ↻
	Spring return	TRFD24-2 Deenergised NC, ball valve closed (A – AB = 0%)
		TRFD24-2-O Deenergised NO, ball valve open (A – AB = 100%)
	Manual override	No
	Angle of rotation	Max. 95°↯
	Running time	Motor 90 s / 90°↯
	Spring return	<25 s at –20 ... 50°C / max. 60 s at –30°C
	Noise level	Motor Max. 35 dB (A)
	Spring return	~62 dB (A)
<b>Safety</b>	Service life	Min. 60'000 emergency settings
	Position indication	Mechanical
	Protection class	III Extra low voltage
	Degree of protection	IP42 in all mounting positions
	EMC	CE according to 89/336/EEC
	Mode of operation	Type 1 (to EN 60730-1)
	Rated impulse voltage	0.8 kV (to EN 60730-1)
	Control pollution degree	3 (to EN 60730-1)
	Ambient temperature range	–30 ... +50°C
	Media temperature	+5 ... +100°C (in ball valve)
	Non-operating temperature	–40 ... +80°C
	Ambient humidity range	95% r.H., non-condensating (to EN 60730-1)
<b>Dimensions / Weight</b>	Maintenance	Maintenance-free
	Dimensions	See «Dimensions» on page 2
	Weight	Approx. 600 g (without ball valve)

### Safety notes



- The actuator has been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably trained personnel.  
All applicable legal or institutional installation regulations must be complied with.
- 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 is not allowed to be removed from the unit.
- 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

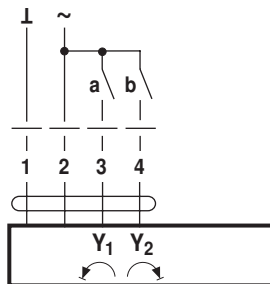
- Mode of operation** The actuator moves the damper to its normal working position while tensioning the return spring at the same time. If the power supply is interrupted, the energy stored in the spring moves the damper back to its safe position.
- Simple direct mounting** Straightforward direct mounting on the ball valve with only one screw. The mounting position in relation to the ball valve can be selected in 90° steps.
- High functional reliability** The actuator is overload-proof, requires no limit switches and automatically stops when the end stop is reached.
- Combination valve actuators** Refer to the valve documentation for suitable valves, their permitted media temperatures and closing pressures.

## Electrical installation

















### Wiring diagram / Direction of rotation

#### Note

- Connect via safety isolation transformer.
- Parallel connection of other actuators possible. Note performance data for supply.

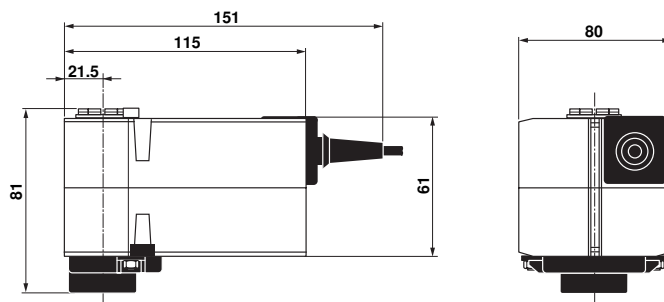


### Direction of rotation

		TRF24-2-O	TRF24-2	
		L	R	
		Reversing switch		
a (Y1)	b (Y2)			
				A – AB = 100%
		stop	stop	
				
				A – AB = 0%

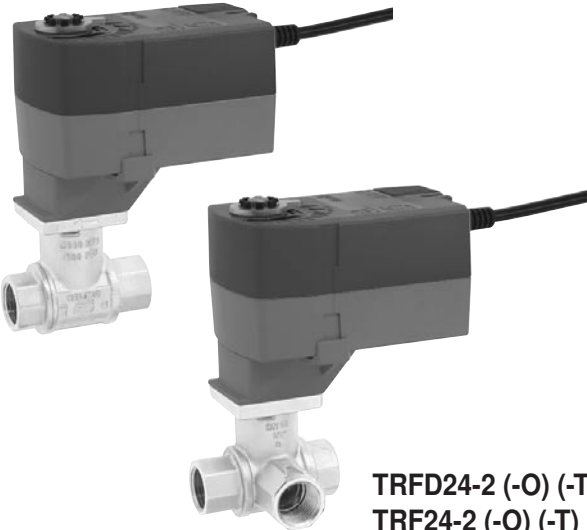
## Dimensions [mm]

### Dimensional diagrams



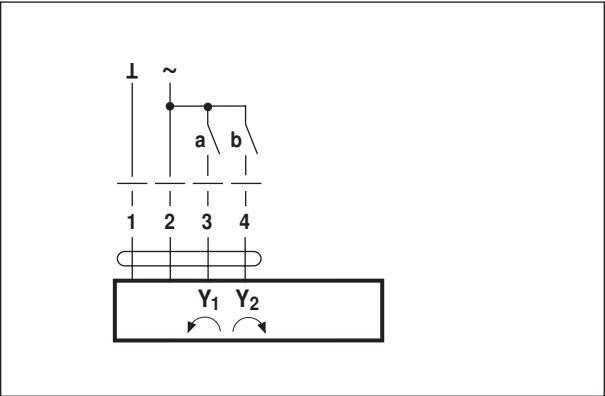
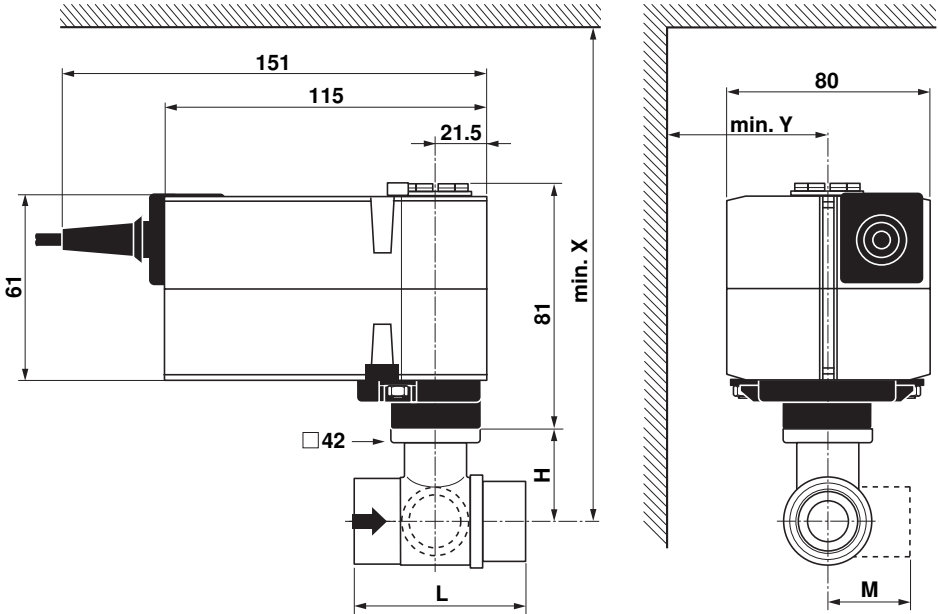
### Further documentations



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

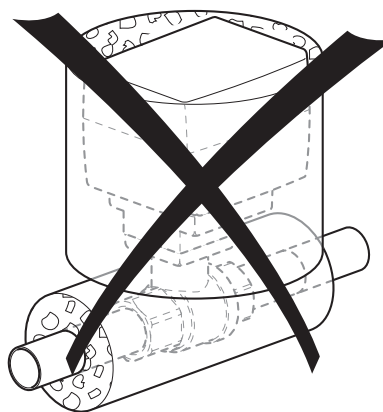
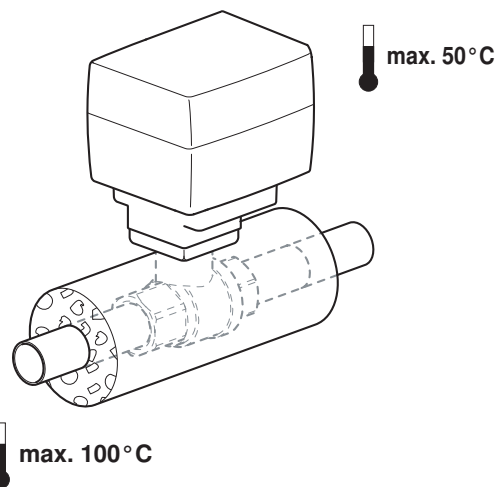


TRFD24-2 (-O) (-T)  
TRF24-2 (-O) (-T)

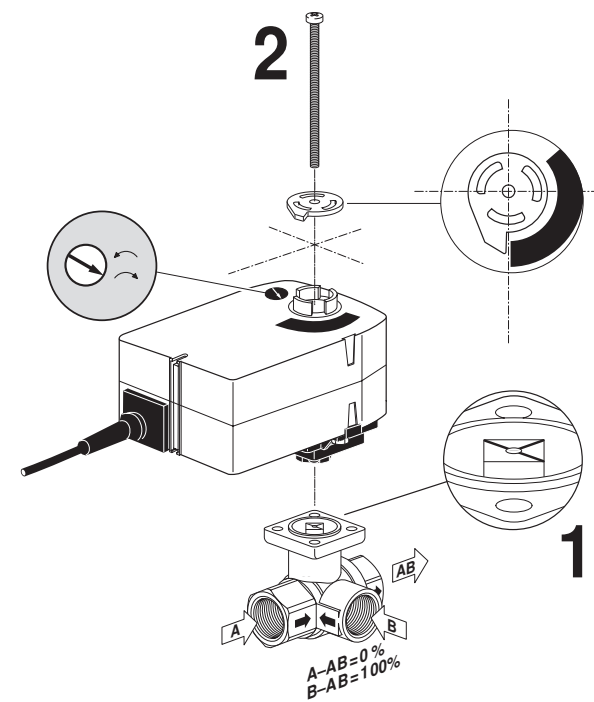
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		DN		Rp	G	PN	mm			TRFD..(-O)(-T)		TRF..(-O)(-T)	
		mm	"				L	H	M	X	Y	X	Y
R2..K	R3..K	10	3/8	3/8			52	35	28	180	80		
R4..K	R5..K	10	3/8		3/4		69	31.5	34	180	80		
R2..	R3..	15	1/2	1/2			67	45	39			190	80
R4..	R5..	15	1/2		1		74	44	38			190	80
R6..R	R7..R	15	1/2			6	101.5	45	73			190	80



TRFD..(-T)  
TRF..(-T)



TRFD..-O (-T)  
TRF..-O (-T)

