

- Mechanical Fail-Safe Rotary Actuators for:
- Torque: 2Nm
- Modulating control: TRF24-SR (AC/DC 24V)
- 3-point control: TRF24-2 (AC/DC 24V)
- Open/Close control: TRF24(-S) (AC/DC 24V)
TRF230(-S) (AC 100...240V)



Technical data

Basic technical data			
	Torque		Min. 2Nm @ nominal voltage
	Angle of rotation		90°
	Direction of rotation	-motor	Selected by mounting side of L/R
		-spring return	Selected by mounting side of L/R or reversing
	Sound power level		Motor: max. 50dB(A), spring return: max. 62dB(A)
	Position indicator		Mechanical
	Ambient temp.		-30...+50°C
	Non-operation temp.		-40...+80°C
	Temp. of medium		+5...+100°C (in control ball valve)
	Humidity		5...95% RH, non-condensing
	Degree of protection		IP42
	EMC		CE according to 2004/108/EC
	Maintenance		Maintenance-free
TRF24-SR	Nominal voltage range		AC 19.2...28.8V, 50/60Hz / DC 21.6...28.8V
	Power consumption	-running	2.5W @ nominal torque
		-holding	1W
	For transformer sizing		4VA
	Connecting cable		Cable 1m, 4x0.75mm ²
	Control signal Y		DC (0)2...10V @ input impedance 100kΩ
	Position feedback signal U		DC 2...10V
	Protection class		III (Extra-low voltage)
	running time	-motor	90s
		-spring return	< 25s (-5...+50°C) / max. 60s (-30°C)
TRF24-2	Weight		0.6kg
	Nominal voltage range		AC 19.2...28.8V, 50/60Hz / DC 21.6...28.8V
	Power consumption	-running	2.5W @ nominal torque
		-holding	1W
	For transformer sizing		4VA
	Connecting cable		Cable 1m, 4x0.75mm ²
TRF24(-S)	Protection class		III (Extra-low voltage)
	Running time	-motor	90s
		-spring return	< 25s (-5...+50°C) / max. 60s (-30°C)
	Weight		0.6kg
	Nominal voltage range		AC 19.2...28.8V, 50/60Hz / DC 21.6...28.8V
	Power consumption	-running	2.5W @ nominal torque
	-holding	1.5W	
TRF230(-S)	For transformer sizing		5VA
	Connecting cable	-motor	Cable 1m, 2x0.75mm ²
		-S	Cable 1m, 3x0.75mm ²
	Protection class		III (Extra-low voltage)
	Auxiliary switch (TRF24-S)		1XSPDT, 1mA...3(0.5)A, AC 250V, 0...100% adjustable
	Running time		Motor: 40...75s; spring return: <75s
	Weight		0.6kg
	Nominal voltage range		AC 85...265V, 50/60Hz
	Power consumption	-running	2.5W @ nominal torque
		-holding	1.5W
TRF230(-S)	For transformer sizing		5VA
	Connecting cable	-motor	Cable 1m, 2x0.75mm ²
		-S	Cable 1m, 3x0.75mm ²
	Protection class		II (Totally insulated)
	Auxiliary switch (TRF24-S)		1XSPDT, 1mA...3(0.5)A, AC 250V, 0...100% adjustable
	Running time		Motor: 40...75s; spring return: <75s
	Low voltage directive		CE according to 2006/95/EC
	Weight		Approx. 0.6kg

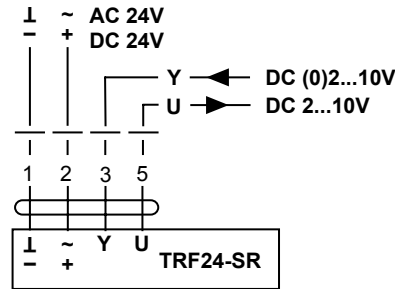
Product features

- Simple direct mounting** Simple direct mounting on the Ball Valve using only one screw.
- Manual operation** No manual operation.
- High function reliability** The actuator is overload-proof, needs no limit switches and stops automatically at the end stops.

Wiring diagram

TRF24-SR

Modulating control

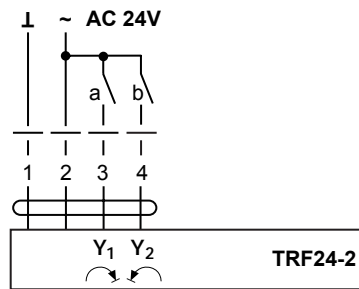


Notes:

- Connection via safety isolating transformer.
- Other actuators can be connected in parallel.
- Please note the performance data.

TRF24-2

3-point control



Notes:

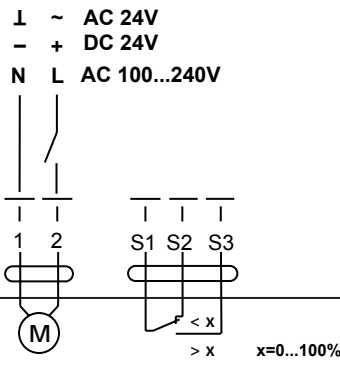
- Connection via safety isolating transformer.
- Other actuators can be connected in parallel.
- Please note the performance data.

Direction of rotation

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

**TRF24(-S)
TRF230(-S)**

Open/Close control



Notes:

- Caution: Power supply voltage!
- Connection via safety isolating transformer.
- Other actuators can be connected in parallel.
- Please note the performance data.