

Electrical Rotary Actuator - On/Off or programmable analog signal input

- Direct mounting on quarter-turn valves
- Manual override standard
- Adjustable limit switches
- Multi-voltage
- Position indicator as standard

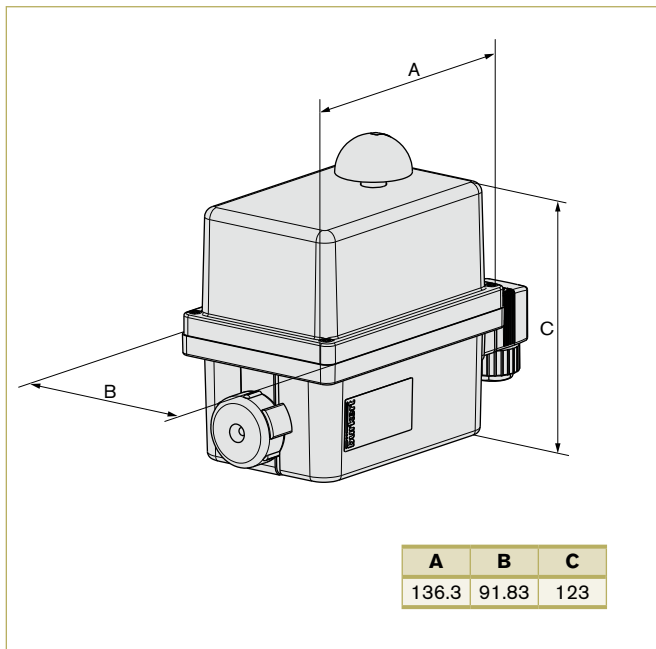


The electrical rotary actuator, Type 3003, is a compact and powerful actuator system which provides a long service life. Materials and components have been chosen for maintenance-free operation even in aggressive environments and ensure low thermal loading on the actuator. The modular design offers many additional features to be added to the basic device such as extra limit switches, potentiometers and emergency power. With the control actuator version the input signals (e.g. 4-20 mA, 0-20 mA, 0-10 V) as well as the output signals can be programmed. Heating resistor and torque limiter are in standard, the housing is made of flame resistant material classified according to UL 94 V0

Technical Data

Materials	Cover/body: Nylon / PA 6.6, Axis screws: stainless steel Transmission: stainless steel and PC
Torque	20, 35, 60 and 100 Nm (see ordering chart)
Angle of rotation	90° (+/- 5°) (extra angle on request)
90° rotation time	See ordering chart
Duty rating	According to IEC34 S4 = 50%
Power supply	15 - 30 V AC 50/60 Hz / 12 - 48 V DC 100 - 240 V AC 50/60 Hz / 100 - 350 V DC
Power consumption	15 W to 45 W (see ordering chart)
Motor protection	Torque limiter
Standard signal (programmable)	Input: 0-10 V, 4-20 mA, 0-20 mA Output: 0-10 V, 4-20 mA, 0-20 mA
Mechanical limit	Standard
Electrical connection	Cable plug acc. to EN175301-803 (supply voltage) (included) Cable glands ISO M20
Mounting	acc. ISO 5211 Motor 20 Nm F05 (removable fixation plate F03/F04/F05) Motor 35, 60, 100 Nm F05/F07
Drive	Motor 20 Nm Female star 14 mm; conversion sleeve 14/11 mm and 14/9 mm enclosed Motor 35, 60 Nm Female star 22 mm; conversion sleeve star 22/14 mm enclosed Motor 100 Nm Female star 22 mm; conversion sleeve star 22/17 mm enclosed
Ambient temperature	-10 °C to +55 °C (emergency power version -10 °C to +40 °C)
Limit switches	4 adjustable (2 for the motor and 2 additional for feedback), max. 250 V AC/5 A
Protection class	IP66 with mounted cable plug
Installation	Do not mount the actuator upside down!
Installation site	up to 2000 m high

Envelope Dimensions [mm]



Ordering Charts

Drive stars [mm]	Conversion sleeve star [mm]	Connection flange	Torque	90° rotation time* +/-1s (Information on load)	Power consumption	Voltage / frequency	Item no.
Multi-voltage version without analogue signal input							
Remark: For the actuator choice, we recommend a safety torque equal to 1.5 times of the valve maximal torque (standard).							
14	14/11 and 14/9	F05 (F03-F04)	20 Nm	12 s	15 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 192
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 193
22	22/14	F05-F07	35 Nm	7 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 194
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 195
			60 Nm	12 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 196
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 197
	22/17	F05-F07	100 Nm	23 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 198
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 225
Multi-voltage version with emergency reset switch							
Remark: For the actuator choice, we recommend a safety torque equal to 1.5 times of the valve maximal torque (standard).							
14	14/11 and 14/9	F05 (F03-F04)	20 Nm	12 s	15 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 207
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 208
22	22/14	F05-F07	35 Nm	7 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 209
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 210
			80 Nm	12 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 211
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 212
	22/17	F05-F07	100 Nm	23 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 213
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 214
Multi-voltage version with analogue signal input							
Remark: For the actuator choice, we recommend a safety torque equal to 2 times of the valve maximal torque.							
14	14/11 and 14/9	F05 (F03-F04)	20 Nm	25 s	15 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 199
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 200
22	22/14	F05-F07	35 Nm	40 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 201
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 202
			60 Nm	79 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 203
						100-240 V AC, 50/60 Hz / 100-350 V DC	225 204
	22/17	F05-F07	100 Nm	119 s	45 W	15-30 V AC, 50/60 Hz / 12-48 V DC**	225 205
						100-240 V AC, 50/60 Hz / 100-350 V DC**	225 206

* other rotation time and rotation angle on request

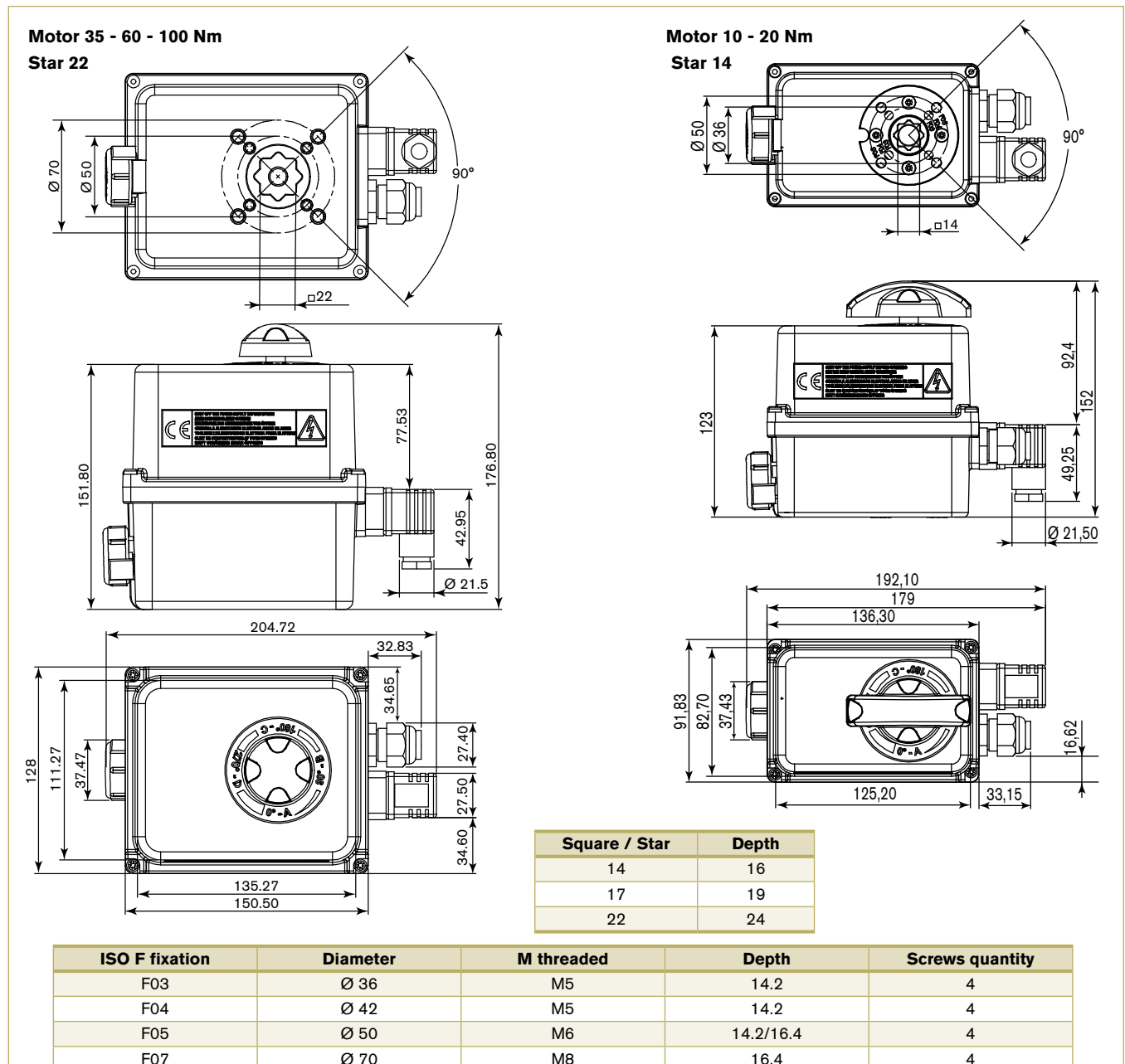
** The operating voltage must not fall below 11.5 V

Accessories

3003

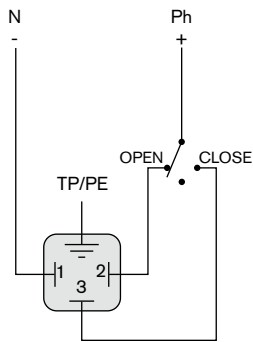
Description	Item no.
Removable flange plate F04 for actuators with torque 10 and 20 Nm	665 293
Key to adjust the limit switches	679 946
Conversion sleeve star/square 14/9 mm	665 288
Conversion sleeve star/square 14/11 mm	665 289
Conversion sleeve star/star 22/14 mm	666 684
Conversion sleeve star/square 22/17 mm	684 858
Conversion sleeve square/square 17/14 mm	665 290
Adapter external square 14/10 mm (for actuators with torque 10 and 20 Nm)	668 234
Adapter external square 14/10 mm (for actuators with torque from 35 Nm)	677 877

Envelope Dimensions [mm] (For additional information see datasheet)

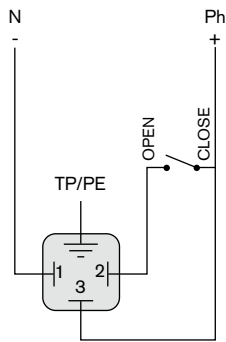


Open/Close version

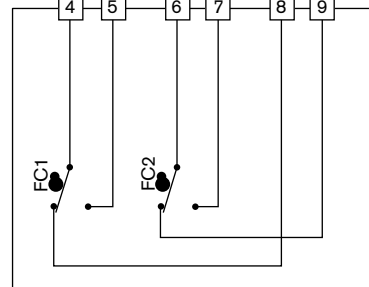
3 points Mode



On/Off Mode



FEEDBACK



Symbol	Designation
FCO	Open limit switch
FCF	Close limit switch
FC1	Auxiliary 1 limit switch
FC2	Auxiliary 2 limit switch

Version with analogue signal input

