

Type 1209 Electromotive Rotary Actuator – 20 up-to 40 Nm Torque - to G3 "(NW 75 mm)



Type 1209



Type 2109

DESCRIPTION

The rotary movement of the stepping motor is converted into a 90° positioning movement with the aid of a 10-turn multi-coil potentiometer and a transmission ratio of 1:40, generating a constant torque of 20 up-to 40 Nm.

Optionally, rotary valves such as 2/2 or 3/2-way ball valves, as well as flaps up to G3" can be used.

The drive housing is made of V4A stainless steel.

TECHNICAL DATA

Operating voltage	24 VDC
Rated current	2 A
Power consumption	48 W
Torque	20 up-to 40 Nm (acc. to spec.)
Pressure range	0 to 64 bar
Actuating speed	adjustable by stepper motor control (min. 4 sec. to max. 30 sec.)
Stepping motor	Nanotec ST 6018K 2008-B / Nanotec ST 6018D 4508-B
Planetary transmission	Nanotec GPLE60-2S-40 / -20
Positioning angle	90° or 180°
Electrical connection	M12x1 panel connector, 8-pin
Control	Standardized signal 4-20 mA or 0-10V Classic ON/OFF
Type of protection	IP 67
Nominal operation type	Intermittent operation 50% duty cycle
Mounting position	any
Material of drive housing	Stainless steel V4A (316/316L)
Valves	2/2 or 3/2-way ball valve and butterfly valves
Material of valves	VA, brass or PVC
Drive connection with actuator	Interface F05 or F07 according to DIN 5211
Ambient temperature	-20°C to +60°C

DIMENSIONS (mm)

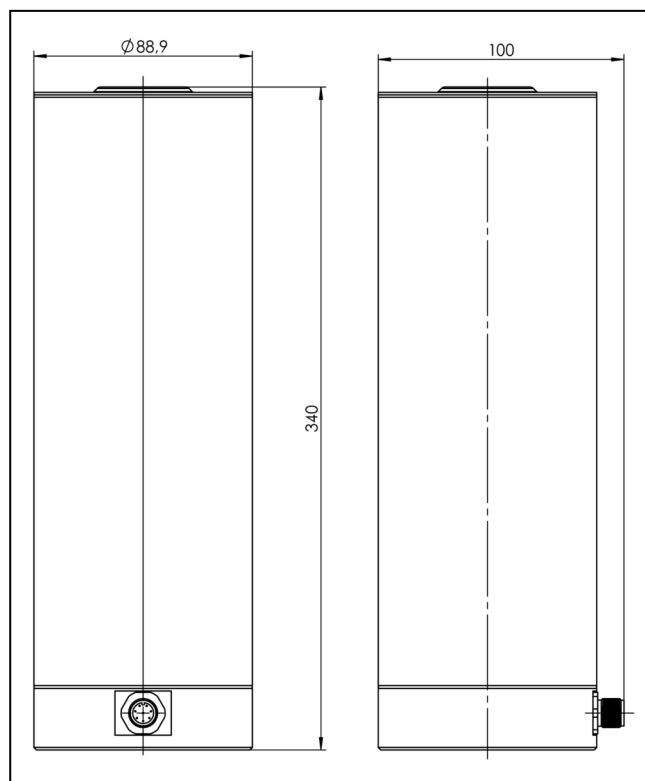


Fig.: Dimensions type 1209

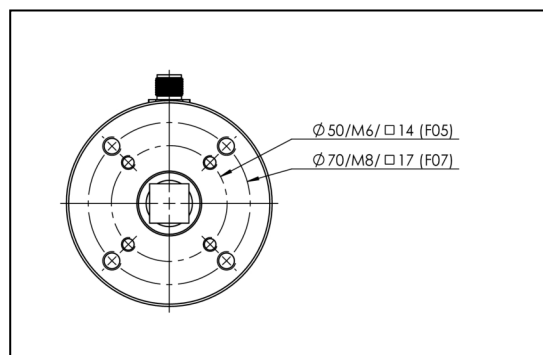


Fig.: Dimensions of interface based on DIN 5211

AREAS OF APPLICATION AS ACTUATOR

- Gas supply systems with higher pressures
- Food industry
- Analytical technology
- Biotechnology
- General system construction

GENERAL DESCRIPTIONS

The basic device, the electromotive rotary actuator type 1209, can be extended by many options, thanks to its modular construction, and is then referred to as type 2109.

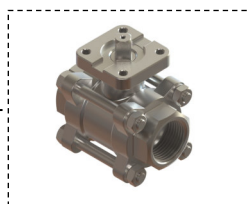
The rotary drive is designed for direct current 24 V DC and has a constant torque of 20 up-to 40 Nm. The materials used ensure maintenance-free operation and ensure a low thermal load. The drive operates in a controlled environment. The controls can be selected from 0-10 V and 4-20 mA. The standard OPEN/CLOSE function can also be selected.

The rotary drive type 2109 can be used for a wide range of applications with neutral and aggressive media.

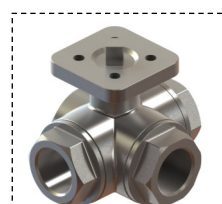
TYPE 1209 CAN BE COMBINED WITH



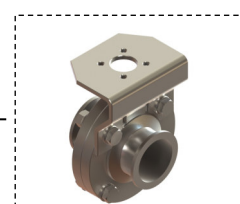
Ball valve 2/2 way
Plastic



Ball valve 2/2 way
Stainless steel (2 or 3-part)



Ball valve 3/2 way
Stainless steel



Flap valve

FLOW: KV VALUE TABLE 2- AND 3-WAY BALL VALVES - FULL PASSAGE

Nominal diameter	Ball valve Kv value
10 mm	7.0 m ³ /h
15 mm	16.3 m ³ /h
20 mm	29.5 m ³ /h
25 mm	43 m ³ /h
32 mm	62 m ³ /h
40 mm	103 m ³ /h
50 mm	163 m ³ /h
60mm	386 m ³ /h
75 mm	514 m ³ /h

Table: Kv values for water at + 20 ° C and 1 bar at the valve inlet and free outlet

OPTIONALLY AVAILABLE

- 230 VAC power supply unit; 4 A, IP 67
- Cable M12x1, 8-core with cable lengths of 1.5m or 3m or 5m
- Connector M12x1, 8-pin for self-assembly
- Stepping motor control software including USB port LPC