

## Type 1209 Electromotive Rotary Actuator - 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 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

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

### DIMENSIONS (mm)

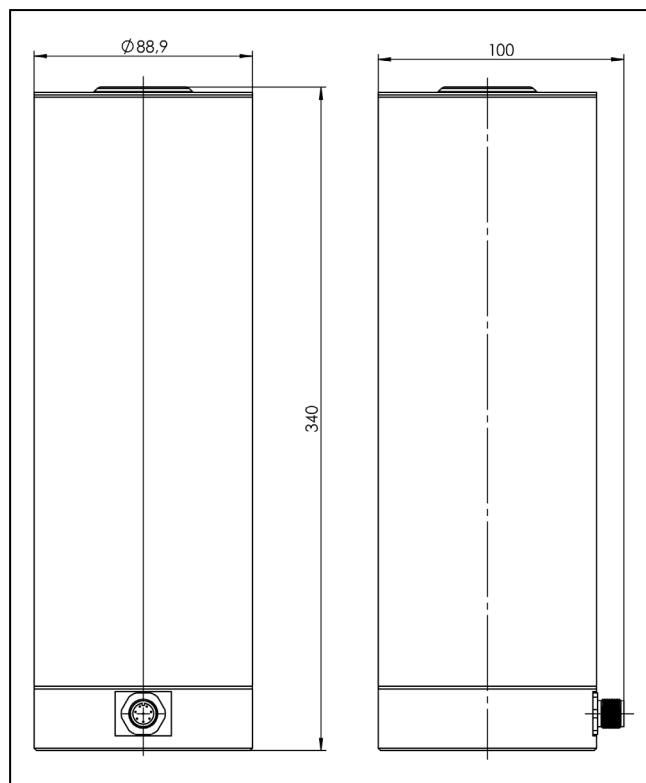


Fig.: Dimensions type 1209

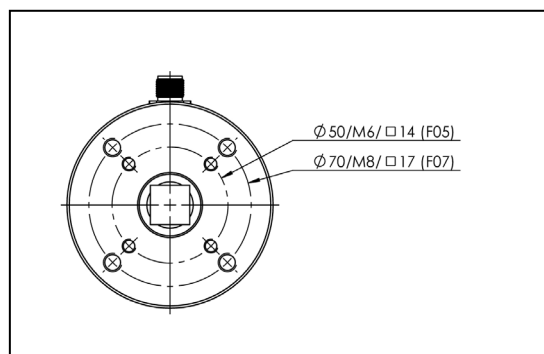


Fig.: Dimensions of interface based on DIN 5211

### 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 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 <sup>3</sup> /h
15 mm	16.3 m <sup>3</sup> /h
20 mm	29.5 m <sup>3</sup> /h
25 mm	43 m <sup>3</sup> /h
32 mm	62 m <sup>3</sup> /h
40 mm	103 m <sup>3</sup> /h
50 mm	163 m <sup>3</sup> /h
60mm	386 m <sup>3</sup> /h
75 mm	514 m <sup>3</sup> /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