

- 2/2 way proportional NC valve
- Low weight and compact geometry with an outside diameter of 8 mm
- Precisely controllable
- Current controlled



TECHNICAL DATA

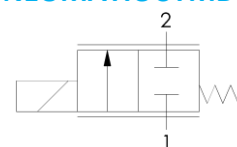
Function	2/2 NC
Pneumatic connection	Cartridge
Orifice size	3 mm
Weight	5 g
Mounting position	any
IP protection class (scope of delivery)	IP60
IP protection class (suitable plug)	IP65
Operating pressure	0 – 10 bar(g)
Pressure resistance	> 30 bar(g)
Flow rate with air @ 10 bar(g) and 20 °C	7.3 ± 0.7 l/min
Flow coefficient kv	up to 0.05 l/min
Service life (switching cycles)	100 million cycles
Temperature range, environment	5 – 50 °C
Temperature range, medium	5 – 50 °C
Temperature range, storage	-40 – 80 °C
Internal tightness	< 1 ml/min
External tightness	< 1 ml/min
Media quality	≤ 10 µm
Media	Air and inert gases, others upon request ¹



ELEKTRICAL DATA

Electrical connection	Flying leads
Length electrical connection	80 mm
Nominal voltage	32 V DC (± 5 %)
Current range	0 – 70 mA
Nominal coil resistance @ 20 °C	308 Ω
Current hysteresis (related to max. current)	< 10 %
Nominal power consumption @ 20 °C	max. 1.5 W
Thermal resistance (without flow)	ca. 90 K/W
Duty cycle (without flow)	67.4 % @ I < 70 mA

PNEUMATIC SYMBOL

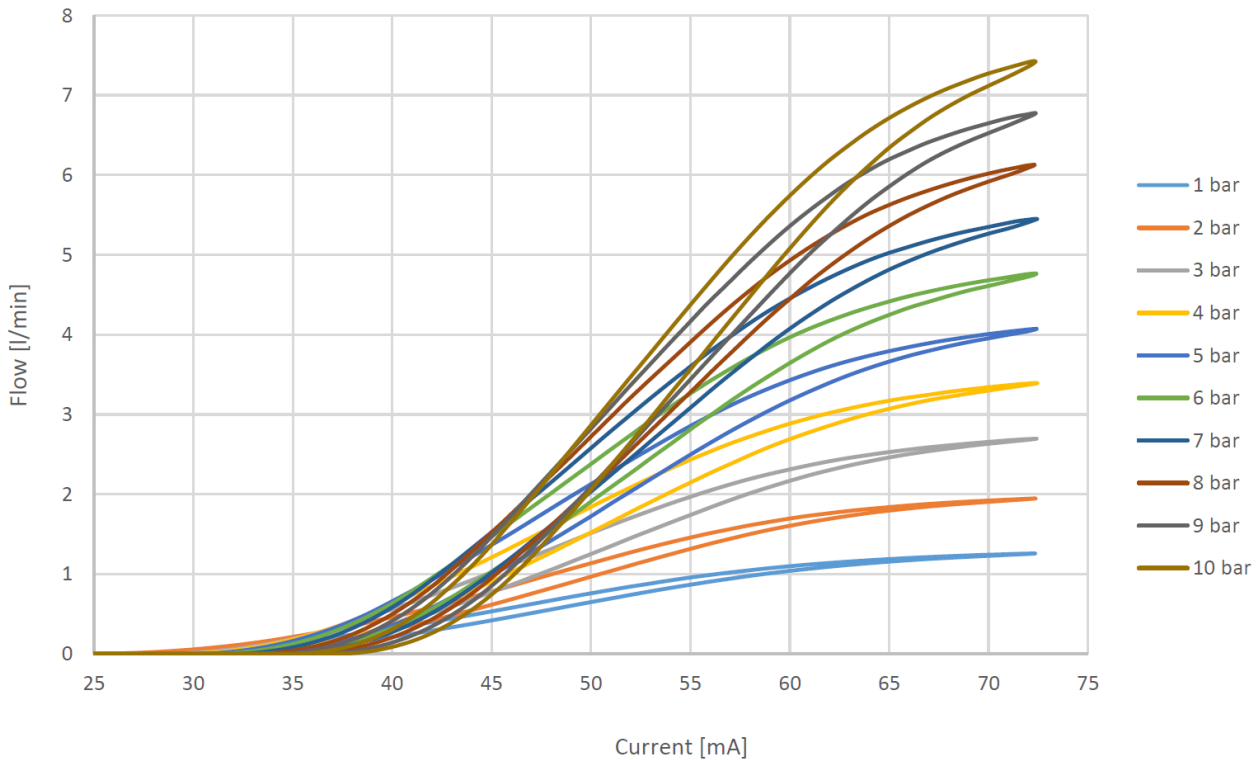


MATERIALS IN CONTACT WITH MEDIUM

1.4305, 1.4105, 1.4310, 1.4104
 FKM, FFKM, Loctite 603

¹ Due to the use of stainless steel, the valve is suitable for many other media (including liquids) after prior testing. Please contact us for more information.

TYPICAL FLOW-CURRENT DIAGRAM WITH AIR



EXTENDED DATA FOR VALVE CONTROL

CURRENT DRIVING [A] (recommended)

Continuous operating current @ 20 °C without flow	≤ 58 mA
Continuous operating current @ 50 °C without flow	≤ 52 mA
Continuous operating current @ 50 °C with flow ≥ 0,5 l/min	≤ 70 mA

VOLTAGE DRIVING [V] (The permitted current range must not be exceeded)

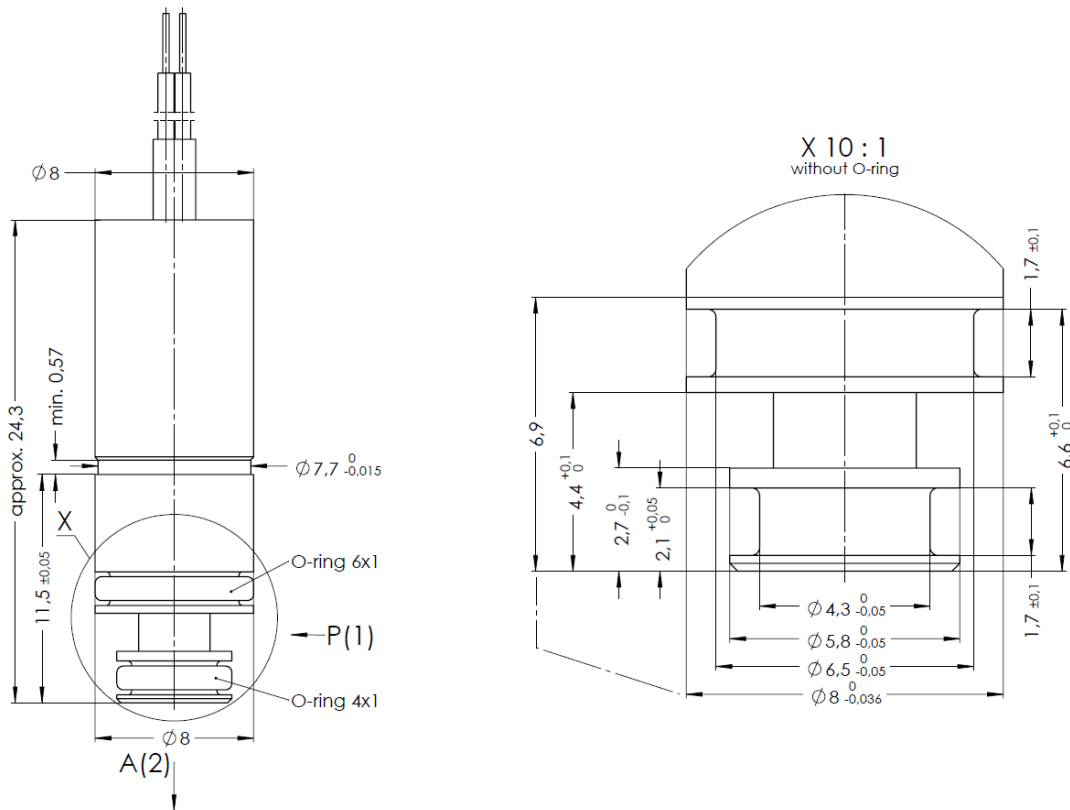
Continuous operating voltage @ 20 °C without flow	≤ 28 V DC
Continuous operating voltage @ 50 °C without flow	≤ 25 V DC
Continuous operating voltage @ 50 °C with flow ≥ 0,5 l/min	≤ 32 V DC

PULSE-WIDTH MODULATION² (The permitted current range must not be exceeded)

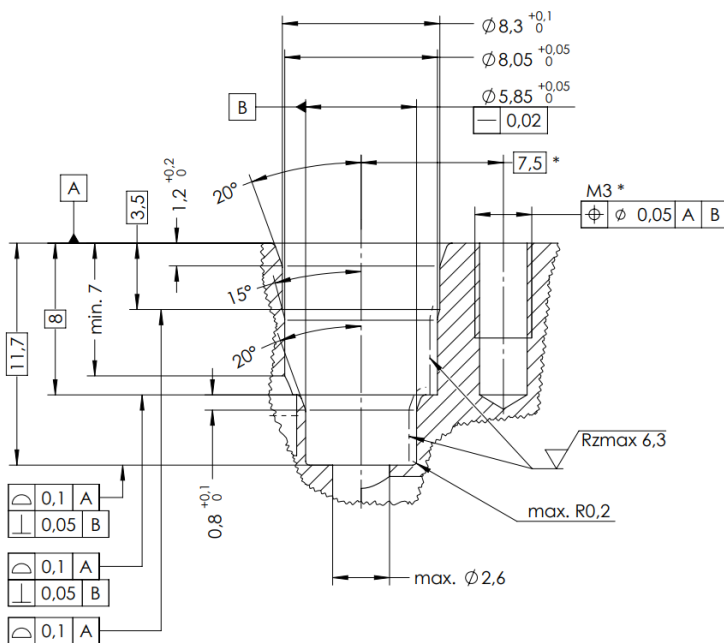
Frequency of the PWM signal	≥ 5 kHz
Nominal duty factor @ 70 mA and @ 20 °C	67.4 %
Continuous duty factor @ 20 °C without flow	≤ 87.5 %
Continuous duty factor @ 50 °C without flow	≤ 78.1 %
Continuous duty factor @ 50 °C with flow ≥ 0,5 l/min	≤ 100 %

² PWM duty factor calculation: Operating voltage / Open-circuit voltage * 100 %

VALVE DIMENSIONS



INSTALLATION GEOMETRY SUGGESTION



Übergänge an den Innendurchmessern müssen abgerundet und gratfrei sein.
 Edges on the inside diameters must be rounded and free of burrs.

* nur erforderlich, wenn mitgelieferter Niederhalter verwendet wird (bitte kontaktieren Sie unser Team für weitere Informationen)

* only needed if provided hold down clamp is used (please contact our team for more information)

Allgemeintoleranz nach DIN ISO 2768-mK
 Tolerierung nach DIN EN ISO 8015:2011
 Maße nach DIN EN ISO 14405
 Form- und Lagetoleranz nach DIN EN ISO 1101
 general tolerance acc. to DIN ISO 2768-mK
 tolerancing acc. to DIN EN ISO 8015:2011
 dimensions acc. to DIN EN ISO 14405
 tolerances of form and position acc. to DIN EN ISO 1101

$\sqrt{Rz 6,3}$ ($\sqrt{Rzmax 6,3}$)

The maximum assembly force with which the valve can be pressed into the receptacle is 30 N. It is recommended to lubricate the valve or the O-rings during assembly (e.g. with alcohol or DI water, depending on compatibility restrictions).

The technical information given describes the usual properties of our products and does not constitute a warranty statement. All values were determined under laboratory conditions and must be verified by the customer for his specific purpose. Due to continuous technical progress, all rights to changes and additions are reserved.

Status: 2024-03-14