

- 2/2-Way NC with media isolation
- Precise flow rates and high repeatability
- Very small design with an outer diameter of 5 mm
- Long service life and very fast switching times



TECHNICAL DATA

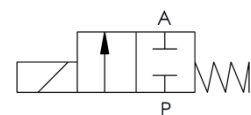
Function	2/2 NC
Pneumatic connection	Cartridge
Orifice size	0.1 mm
Weight	2,4 g
Mounting position	any
IP protection class (scope of delivery)	IP60
Operating pressure	0.1 – 1.3 bar(g)
Maximum outlet pressure	0.2 bar(g)
Pressure resistance	> 5 bar(g)
Flow rate with air @ max. pressure	0.16 l/min
Flow coefficient kv	0.01 l/min
Switch-on time (electrical)	1 ms ¹
Service life (switching cycles)	100 mio. cycles
Temperature range, environment	5 – 50 °C
Temperature range, medium	5 – 50 °C
Temperature range, storage	-30 – 80 °C
Internal volume	4.3 µl
Internal tightness	< 0,005000 ml/min
External tightness	< 0,005000 ml/min
Media quality	≤ 10 µm
Media	Air, oxygen, inert gases ²



ELECTRICAL DATA

Electrical connection	Pins
Length electrical connection	5,5 mm
Nominal voltage	12 V DC
Nominal coil resistance @ 20 °C	215 Ω
Nominal power consumption	0.65 W
Thermal resistance (no flow)	approx. 118 K/W
Permitted Duty cycle (no flow)	100 %

PNEUMATIC SYMBOL



WETTED MATERIALS

Housing	PEEK and Saphir
O-ring	FFKM
Diaphragm	FFKM

¹ Can be achieved if the valve is controlled with a higher voltage than the nominal voltage. Please refer to page 2 of the data sheet or contact us for further information.

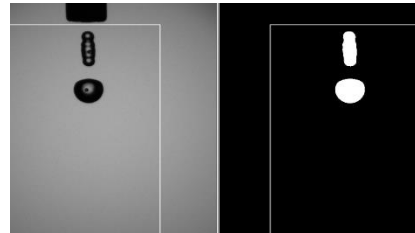
² Due to the use of resistant materials, the valve is suitable for many other media (including liquids) after prior testing. Please contact us for more information.

TECHNICAL RECOMMENDATION FOR PRECISION DISPENSING

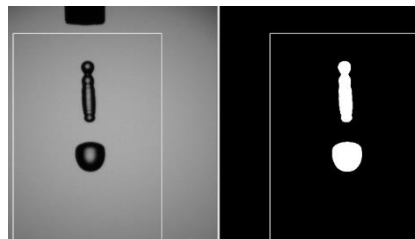
Voltage (overdrive)	24 V DC
Electronic requirement	min. 27 V Z-diode
Frequency range	1 – 100 Hz
Minimum pulse time	5 ms
Maximum duty cycle @ 24 V DC	50 %

EXAMPLE DISPENSING VOLUMES / SHOT VOLUMES

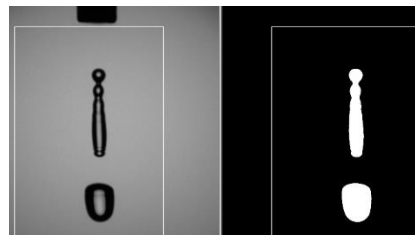
Droplet size	126 nl
CV%	1.05 %
Valve	0.1 mm orifice (613-000-013)
Needle	0.5 mm uncoated steel needle
Control	24 V DC / 10 Hz / 5.5 ms t_{on}
Media	150 mbar water



Droplet size	180 nl
CV%	1.3 %
Valve	0.2 mm orifice (613-000-012)
Needle	0.5 mm uncoated steel needle
Control	24 V DC / 10 Hz / 5.5 ms t_{on}
Media	150 mbar water



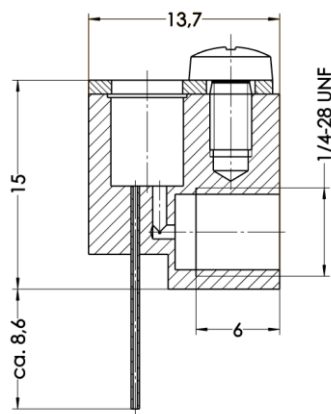
Droplet size	265 nl
CV%	2.1 %
Valve	0.3 mm orifice (613-000-011)
Needle	0.5 mm uncoated steel needle
Control	24 V DC / 10 Hz / 5.5 ms t_{on}
Media	150 mbar water



Please contact us for further examples, including parameter sets.

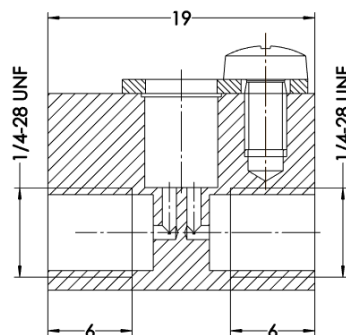
ACCESSORIES

PEEK dispensing block



Dispensing needle 0.5 mm: 569-000-130

PEEK mounting block



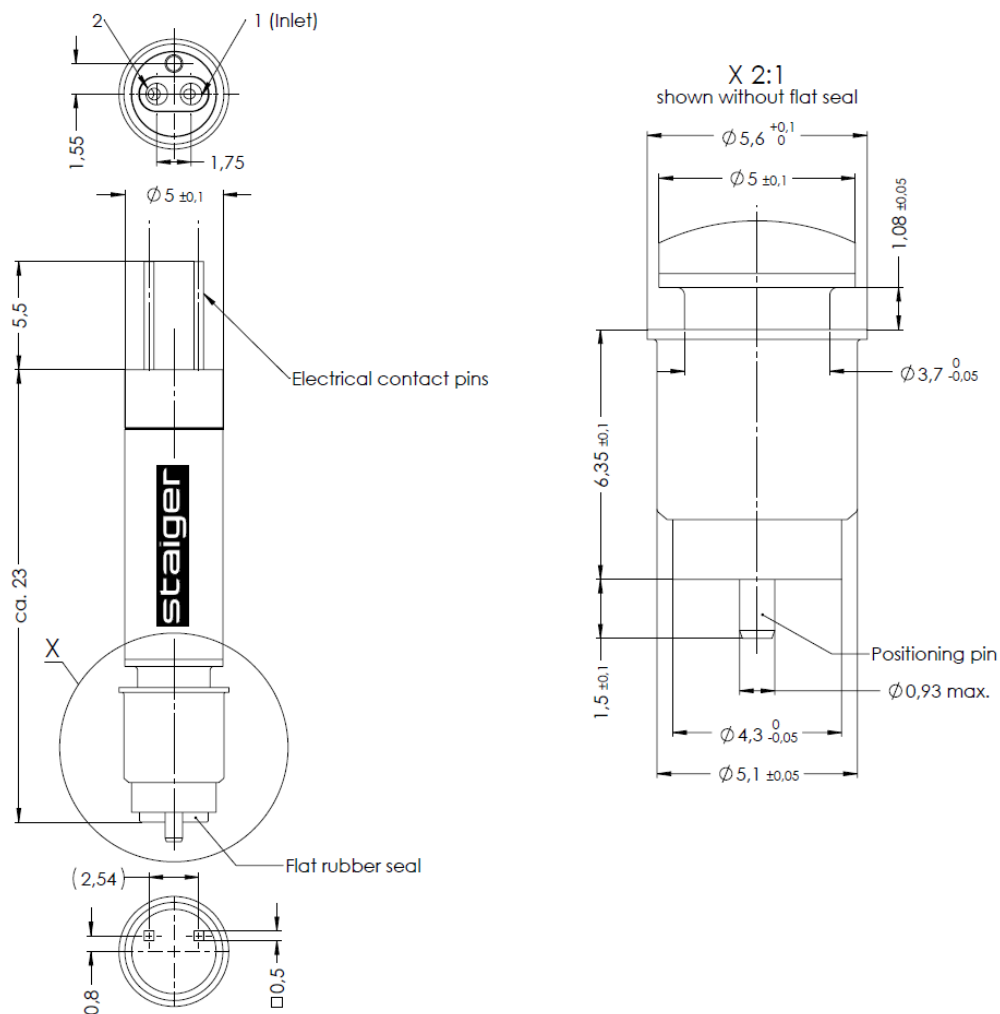
1/4-28 UNF: 569-000-131

Flange adapter

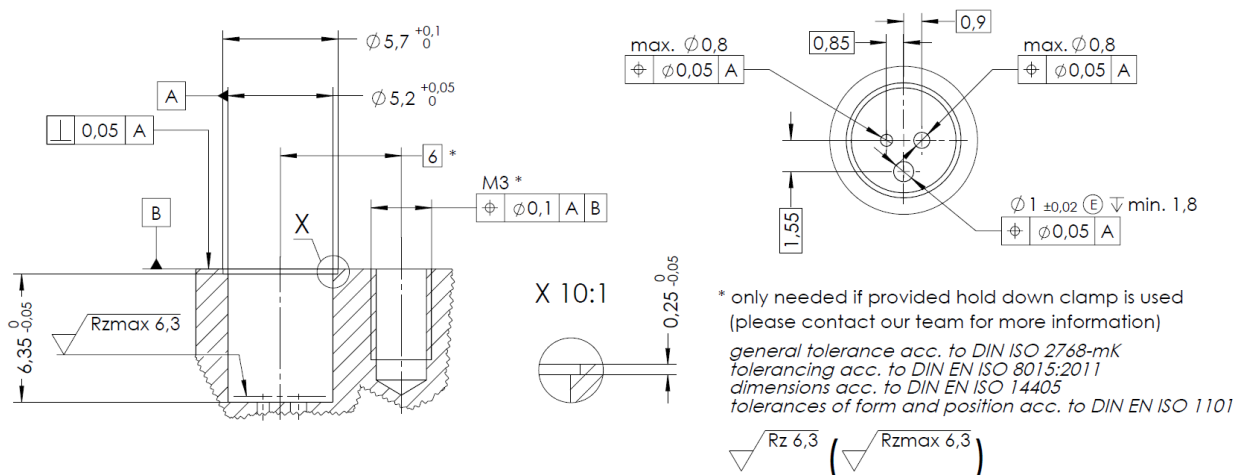


Flange adapter: 569-000-132

VALVE DIMENSIONS



INSTALLATION RECOMMENDATION



The maximum assembly force with which the valve can be pressed into the receptacle is 10 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: 2026-04-02