

- Very small footprint and size
- Media separation
- Precise flow rates
- Low power consumption



TECHNICAL DATA

Function	2/2 NC
Pneumatic connection	Cartridge
Orifice size	0.3 mm
Weight	~ 2.4 g
Mounting position	any direction
IP protection class (scope of delivery)	IP 60
Operating pressure	0 – 1.5 bar(g)
Maximum outlet pressure	0.2 bar (g)
Flow rate with air @ max. pressure	approx. 1.45 l/min
Flow coefficient kv	approx. 0.04 l/min
Switch-on time (electrical)-(media water)	< 1 ms ¹
Temperature range, environment	10 – 50 °C
Temperature range, medium	10 – 50 °C
Temperature range, storage	-10 – 60 °C
Internal volume	< 4.3 µl
Internal tightness (with air)	< 1 ml/min
External tightness (with air)	< 1 ml/min
Media quality	≤ 10 µm
Media	Air, oxygen, inert gases, liquids ²

Other versions upon request

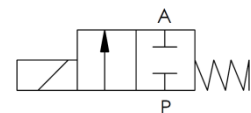


ELECTRICAL DATA

Electrical connection	Pins
Nominal voltage	12 V DC
Nominal coil resistance @ 20 °C	215 Ω
Nominal power consumption	0.7 W
Permitted Duty cycle (no flow)	100 %

Other versions upon request

PNEUMATIC SYMBOL



WETTED MATERIALS

Housing	Sapphire, PEEK
Sealing	FFKM

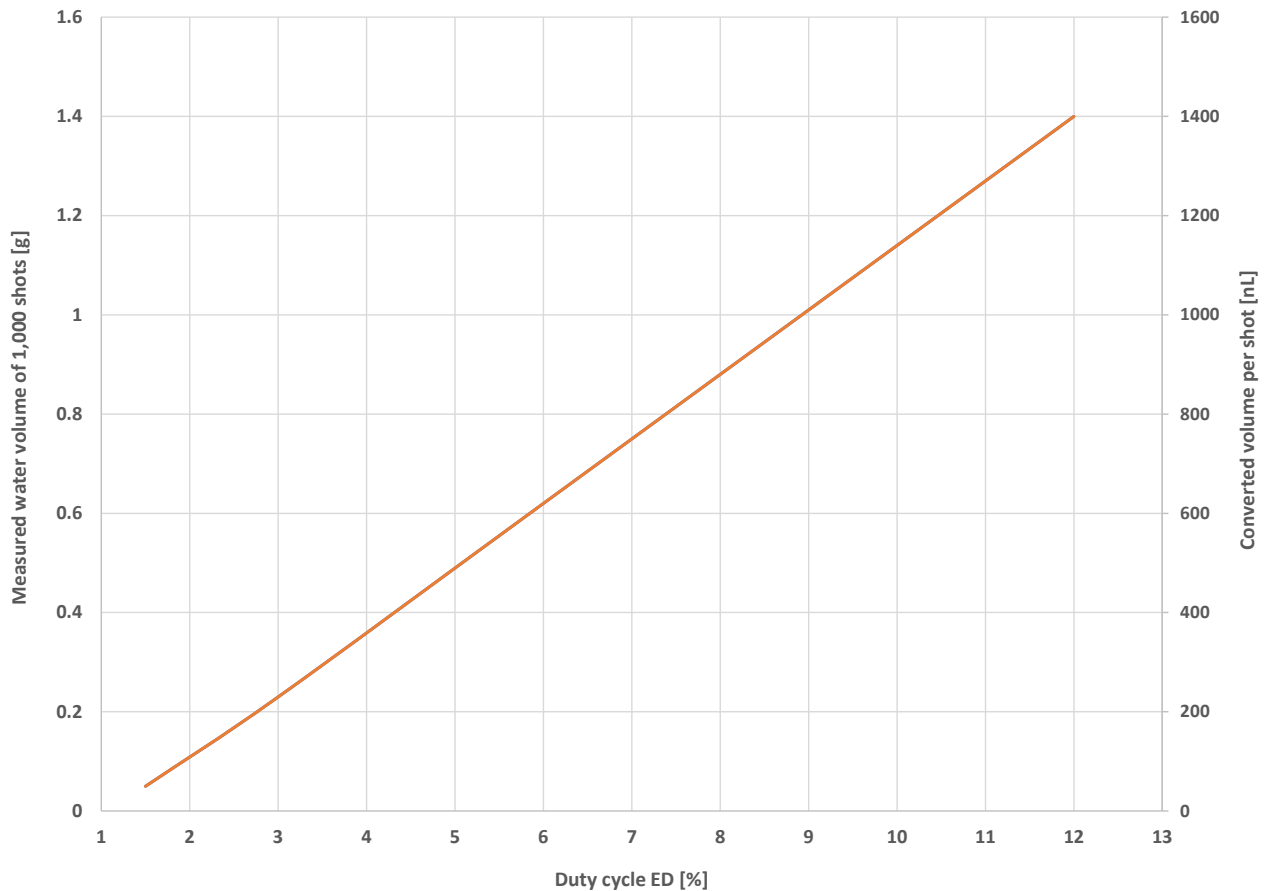
Other versions upon request

¹ Can be achieved if the valve is controlled with a higher voltage than the nominal voltage. Please 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.

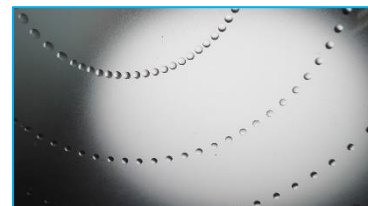
EXEMPLARY LIQUID QUANTITIES / SHOT VOLUMES

Measured water weight after 1,000 shots / inlet pressure 0.1 bar / 24 V DC / 10 Hz / needle 0.3 mm



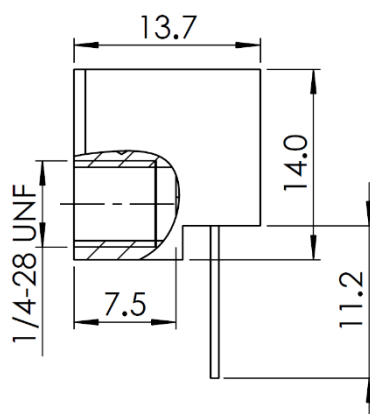
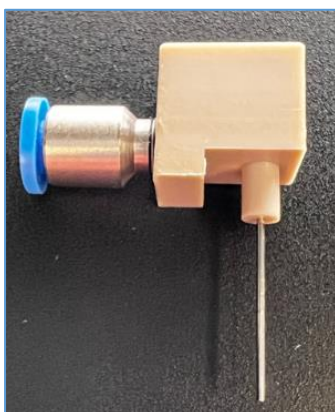
TECHNICAL RECOMMENDATIONS

Dosing range	Valve orifice	Needle diameter
< 50 nL	0.1 mm	0.1 mm
50 – 100 nL	0.2 mm	0.2 mm
> 100 nL	0.3 mm	0.3 – 0.6 mm

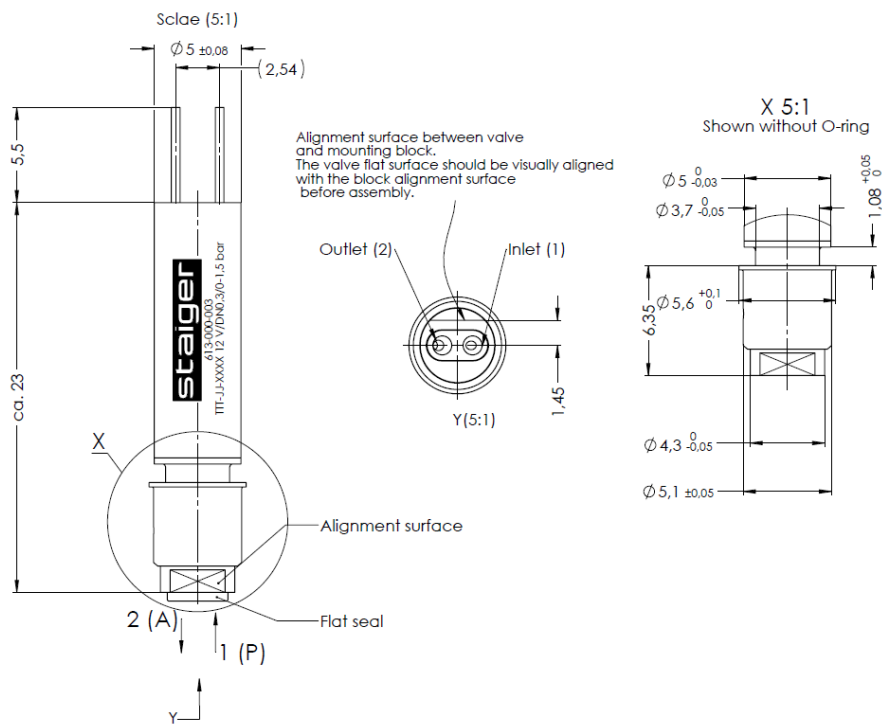


ACCESSORIES

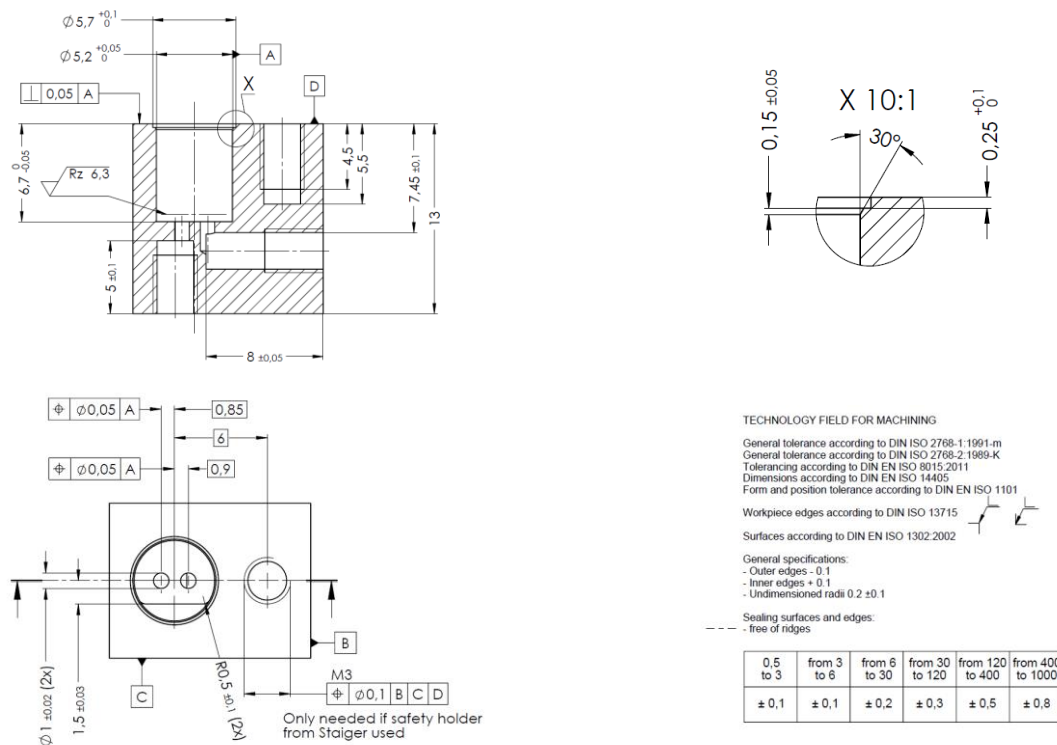
Valve manifold for integration of a needle, made of PEEK. Other dimensions and threads on request.



VALVE DIMENSIONS



INSTALLATION RECOMMENDATION



TECHNOLOGY FIELD FOR MACHINING
 General tolerance according to DIN ISO 2768-1:1991-m
 General tolerance according to DIN ISO 2768-2:1989-K
 Tolerancing according to DIN EN ISO 8015:2011
 Dimensions according to DIN EN ISO 14405
 Form and position tolerance according to DIN EN ISO 1101
 Workpiece edges according to DIN ISO 13715
 Surfaces according to DIN EN ISO 1302:2002
 General specifications:
 - Outer edges - 0.1
 - Inner edges + 0.1
 - Undimensioned radii 0.2 ± 0.1
 Sealing surfaces and edges:
 - free of ridges

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).

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Operating pressure	0 – 1.5 bar(g)
Maximum outlet pressure	0.2 bar (g)
Flow rate with air @ max. pressure	approx. 0.7 l/min
Flow coefficient kv	approx. 0.019 l/min
Switch-on time (electrical)-(media water)	< 1 ms ¹
Temperature range, environment	10 – 50 °C
Temperature range, medium	10 – 50 °C
Temperature range, storage	-10 – 60 °C
Internal volume	< 4.3 µl
Internal tightness (with air)	< 1 ml/min
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Media	Air, oxygen, inert gases, liquids ²

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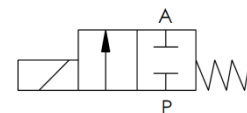


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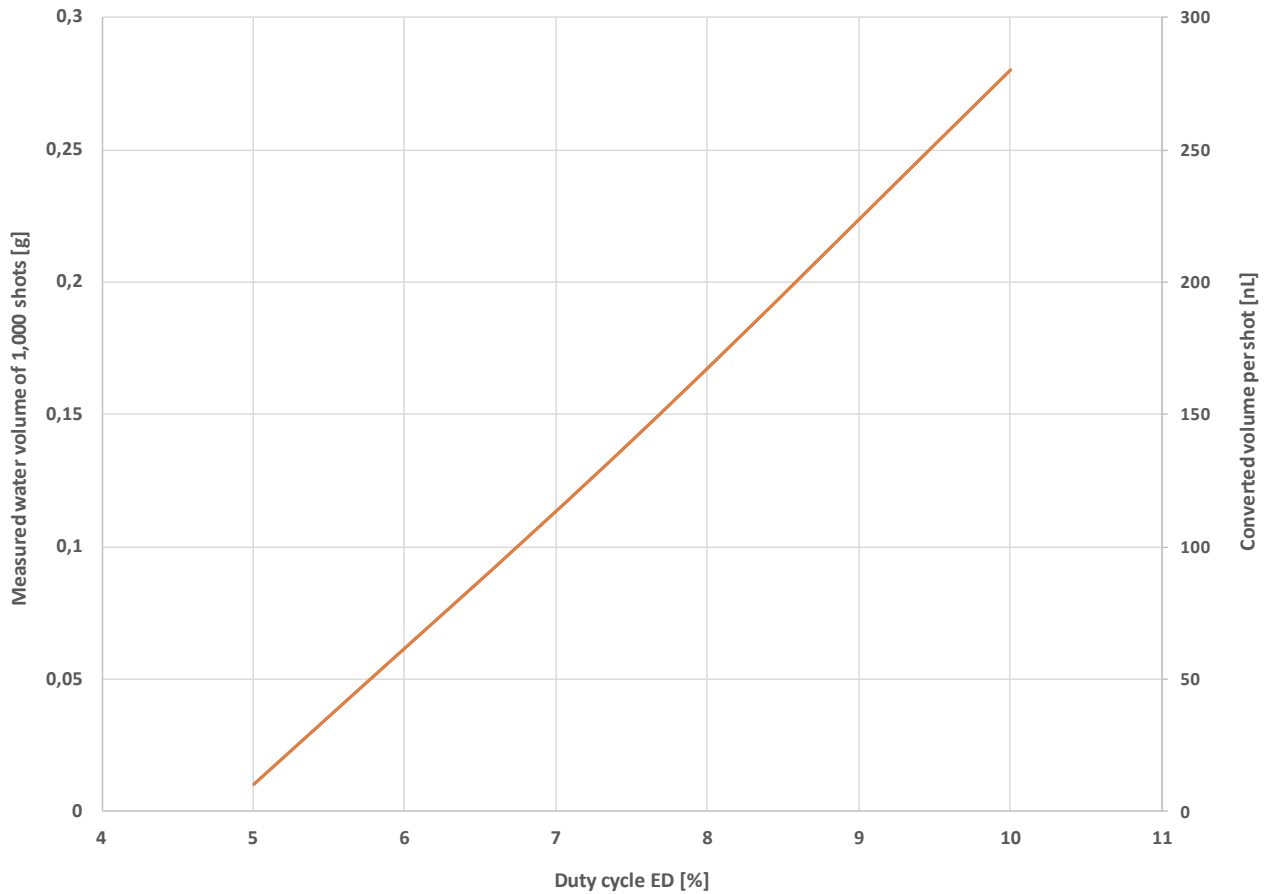
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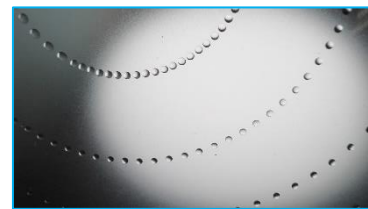
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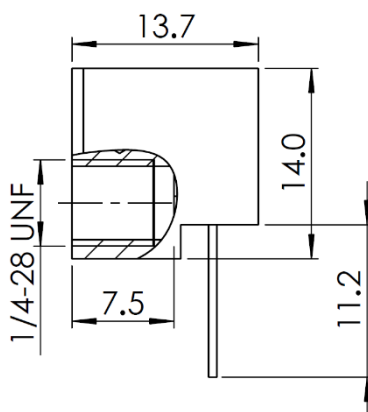
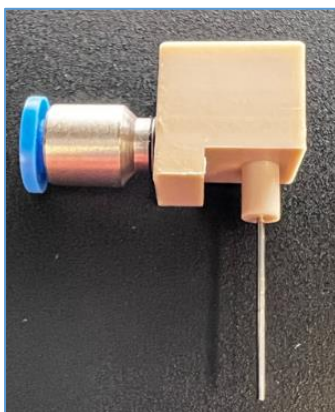
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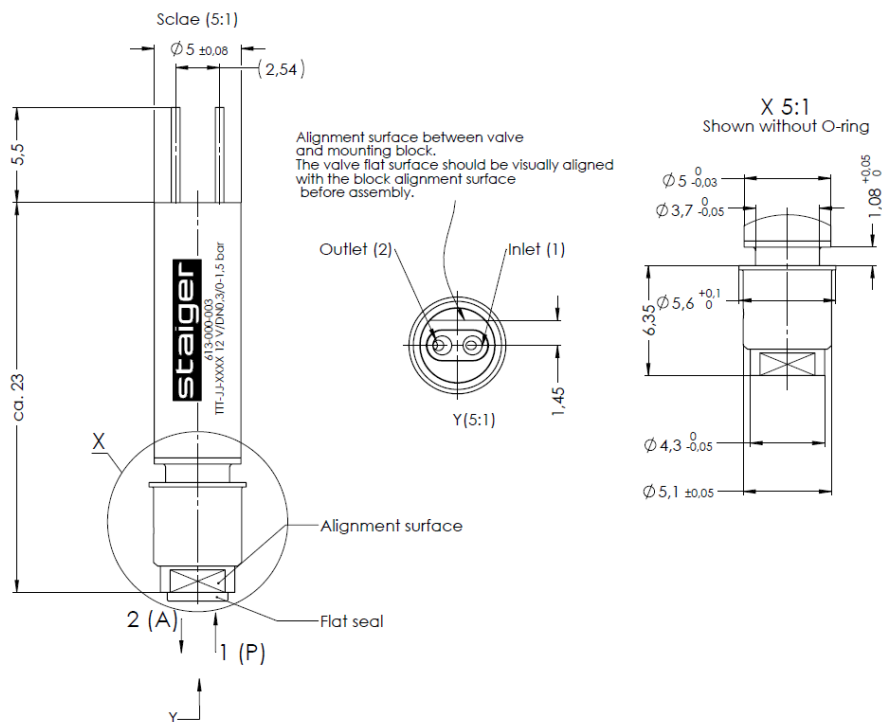


ACCESSORIES

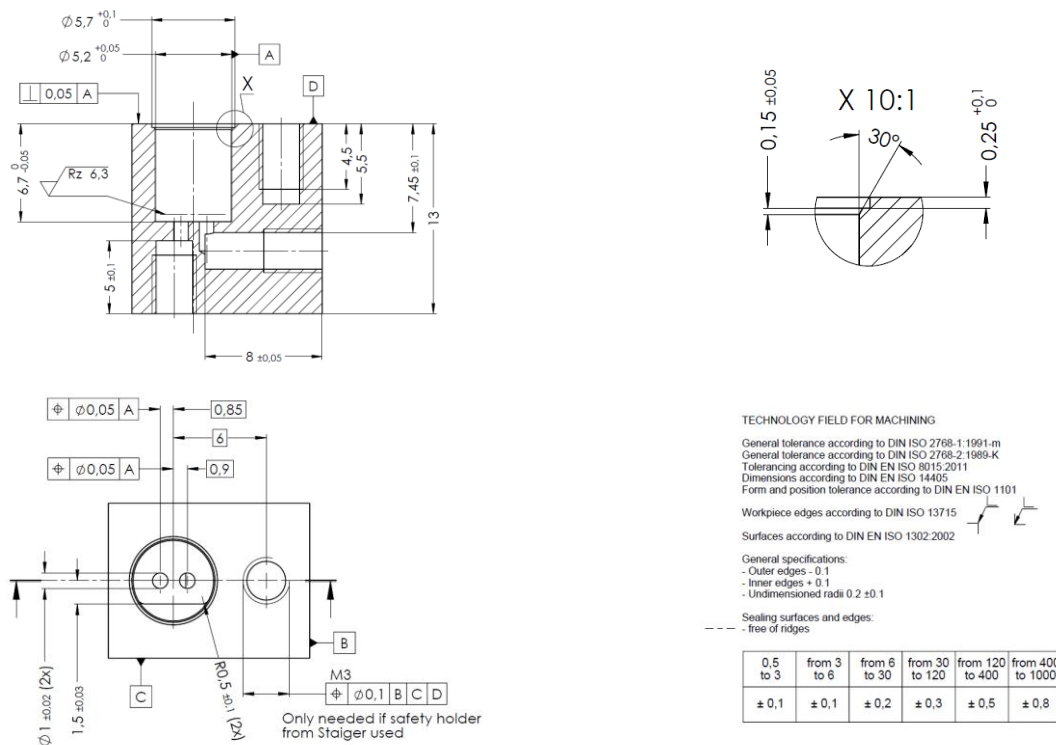
Valve manifold for integration of a needle, made of PEEK. Other dimensions and threads on request.



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