IN-LINE STOP VALVE SERIES STP L, STP C AND STP S

Part of the LINE ON LINE® range, the STP check valve is designed for modular integration, in series or parallel, with all components of the same family.
Typically installed on cylinder inlets, this valve enables air flow only when pneumatically piloted, controlled via a push-in fitting for a Ø 4 (5/32") tube. In the event of a drop in pressure in the control signal, cylinder movement is immediately interrupted. To facilitate installation in limited spaces, the pilot is also available in a horizontal version.
The valve operates in unidirectional mode: flow is blocked in only one direction, while remaining free in the opposite direction.
Thanks to this feature, it can also be used as a pneumatically actuated 2/2-way valve.
The valve is available in various types to adapt to any installation requirement:

In-line (STP L)
- with push-in fittings at both the inlet and outlet;
- with threaded inlet connection and push-in fitting at the outlet;
- with push-in fitting at the inlet and threaded outlet connection.

Angle (STP C)
- with threaded inlet connection and push-in fitting at the outlet.

Cartridge (STP S)
- for direct installation in appropriately worked seats.

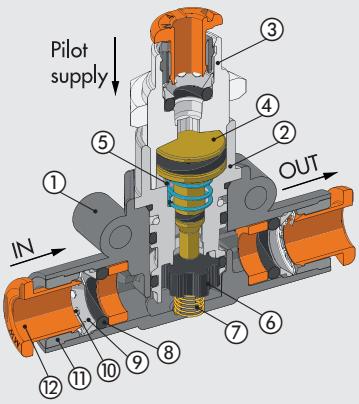
TECHNICAL DATA		STP L		STP C		STP S	
Threaded ports	G (BSP)	1/8"-1/4"	1/8"-1/4"-3/8"	1/8"	1/4"	1/8"	1/4"
Pipe coupling	Ø	6	8 ▲	4 ▲ - 6 - 8 ▲	6 - 8 ▲ - 10	–	–
Max. operating pressure	MPa	1					
	bar	10					
	psi	145					
Temperature range	°C	– 20 to + 60					
	°F	– 4 to + 140					
Recommended pipe		Rilsan PA 11 - Nylon 6 - Polyamide 12 - Polypropylene					
Fluid		Lubricated or unlubricated filtered compressed air; if used, must be continuous					
Compatibility with oils		See **chapter Z1**					

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"

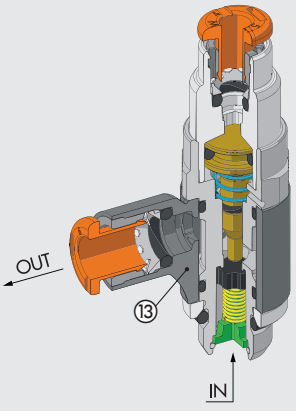
COMPONENTS

① Technopolymer body
② Nickel-plated brass insert
③ Nickel-plated brass pilot insert
④ AISI 303 steel rod
⑤ Stainless steel clamping spring
⑥ NBR seal
⑦ Stainless steel poppet spring
⑧ NBR seal
⑨ Technopolymer spring ring
⑩ Stainless steel clip-on spring
⑪ Technopolymer stop bushing
⑫ Technopolymer release bushing
⑬ Technopolymer swivel ring

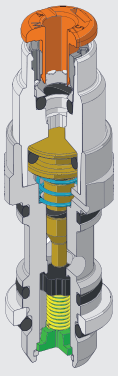
STP L



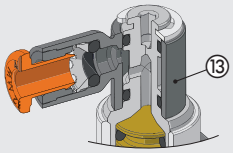
STP C



STP S

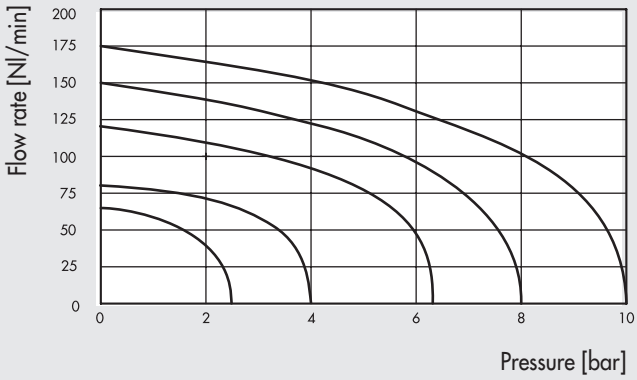


STP L - STP C - STP S
Horizontal pilot

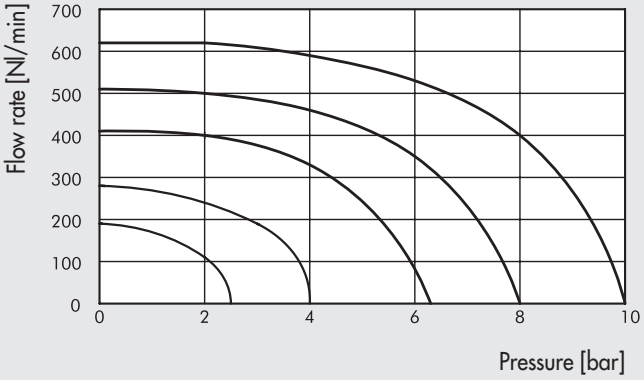


FLOW CHARTS

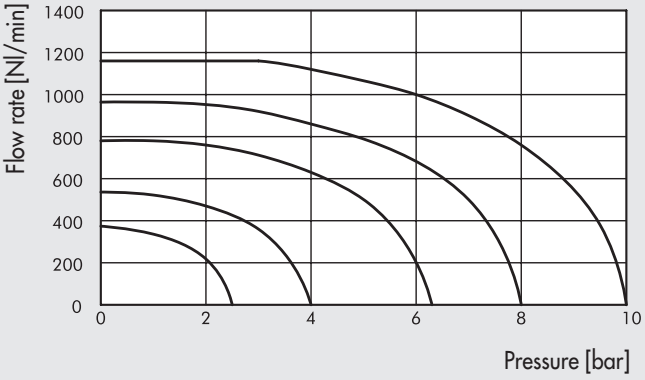
STP C Ø 4 (Ø5/32") -1/8"



STP L Ø 6
STP C Ø6 1/8" - STP C Ø 8 1/8"
STP S 1/8"

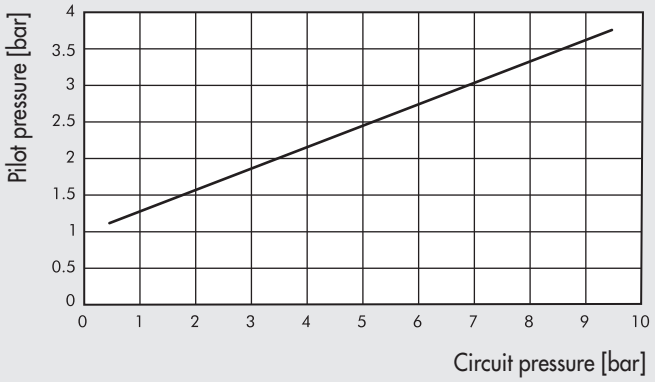


STP L Ø 8 (Ø5/16")
STP C Ø6 1/4" - STP C Ø 8 1/4"
STP S 1/4"

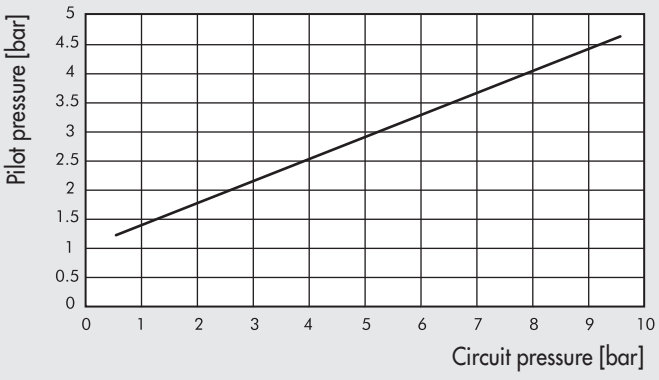


MINIMUM PILOT PRESSURE

STP L Ø 6
STP C 1/8" Ø4 (Ø5/32"), Ø6, Ø8 (Ø5/16")
STP S 1/8"



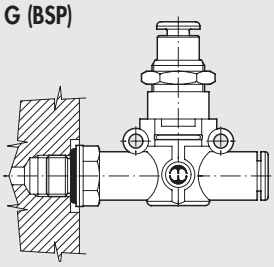
STP L Ø 8
STP C 1/4" Ø6, Ø8 (Ø5/16")
STP S 1/4"



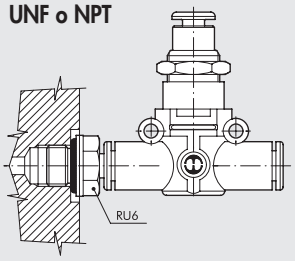
ASSEMBLY OPTIONS STP L / STPC

Ⓐ

G (BSP)



UNF o NPT



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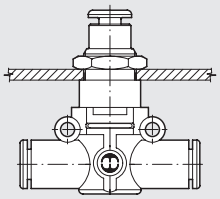

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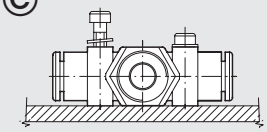

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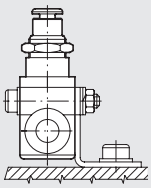

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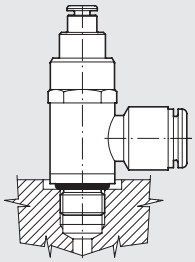
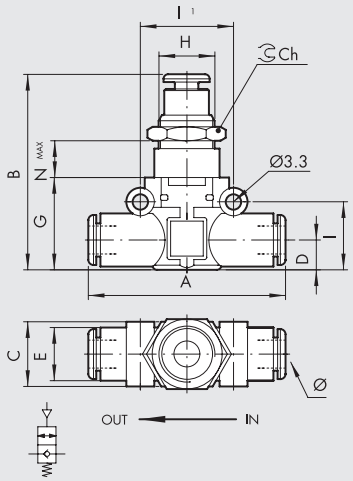


How to mount the STP L/STP C:

- Fig. Ⓐ **G (BSP)**: With the male threaded port it is possible to mount the STP L straight onto the actuator or the control valve.
  UNF or NPT: Adding a RU6 fitting, with his male UNF or NPT thread, it is possible to mount the STP L straight on to the actuator or the control valve.
- Fig. Ⓑ The ring nut is screwed onto the threaded metal part of the STP L body for panel mounting
- Fig. Ⓒ There are two robust rings on the plastic body for fixing the STP L straight onto the wall.
- Fig. Ⓓ Fixing to the plate with the special SQU L bracket.
- Fig. Ⓔ For maintaining the tube the most parallel possible to the system , had been designed a specific version (STP C) with inlet and outlet at 90°.

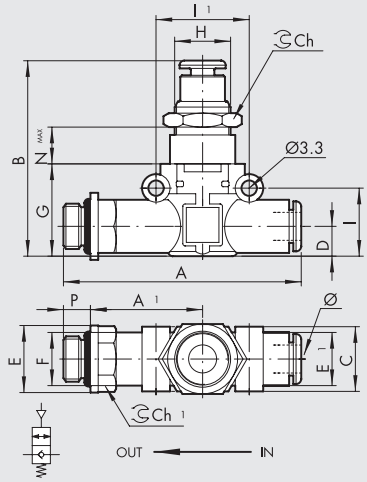
STP L 2/2 PIPE - PIPE



Code	Ref.	Ø	A	B	C	D	E	G	H	I	I1	Ch	Nmax
9065616	STP L 2/2 Ø6 - Ø6	6	49.4	43.2	14.7	6.4	11.4	20	M12x0.75	14.6	20	15	12
9065624	STP L 2/2 Ø8 - Ø8	8 ▲	57.3	49.7	18.7	9.1	13.8	26	M15x1	18.7	24	17	11.8

▲ **Ø8** = Ø5/16"

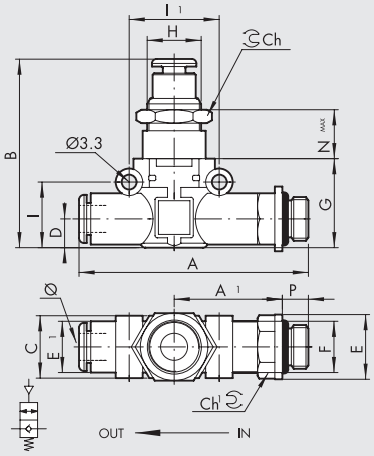
STP L 2/2 PIPE - G (BSP) THREAD



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9065808	STP L 2/2 Ø6 - 1/8	6	1/8	6	58.5	27.8	43.2	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	12
9065809	STP L 2/2 Ø6 - 1/4	6	1/4	8	61.5	28.8	43.2	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	12
9065810	STP L 2/2 Ø8 - 1/8	8 ▲	1/8	6	66.2	31.8	49.7	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	11.8
9065811	STP L 2/2 Ø8 - 1/4	8 ▲	1/4	8	70.6	34.2	49.7	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	11.8
9065812	STP L 2/2 Ø8 - 3/8	8 ▲	3/8	9	72.2	34.8	49.7	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	11.8

▲ **Ø8** = Ø5/16"

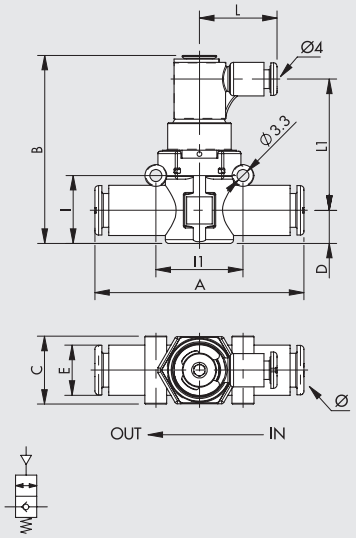
STP L 2/2 G (BSP) THREAD - PIPE



Code	Ref.	F	Ø	P	A	A1	B	C	D	E	E1	G	H	I	I1	Ch	Ch1	Nmax
9065708	STP L 2/2 1/8 - Ø6	1/8	6	6	58.5	27.8	43.2	14.7	6.4	14	11.4	20	M12x0.75	14.6	20	15	12	12
9065709	STP L 2/2 1/4 - Ø6	1/4	6	8	61.5	28.8	43.2	14.7	6.4	18	11.4	20	M12x0.75	14.6	20	15	14	12
9065710	STP L 2/2 1/8 - Ø8	1/8	8 ▲	6	66.2	31.8	49.7	18.7	9.1	15	13.8	26	M15x1	18.7	24	17	14	11.8
9065711	STP L 2/2 1/4 - Ø8	1/4	8 ▲	8	70.6	34.2	49.7	18.7	9.1	18	13.8	26	M15x1	18.7	24	17	14	11.8
9065712	STP L 2/2 3/8 - Ø8	3/8	8 ▲	9	72.2	34.8	49.7	18.7	9.1	22	13.8	26	M15x1	18.7	24	17	17	11.8

▲ **Ø8** = Ø5/16"

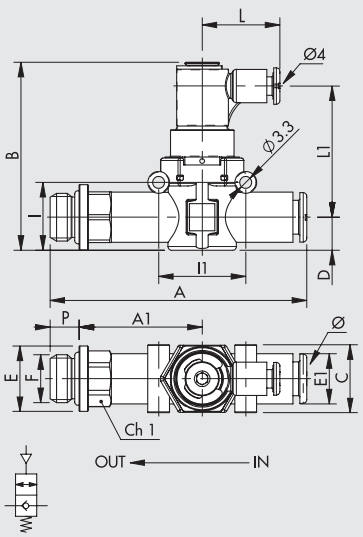
STP L 2/2 PIPE - PIPE, HORIZONTAL PILOT



Code	Ref.	Ø	A	B	C	D	E	I	I1	L	L1
90656B8	STP L 2/2 Ø6 - Ø6 HORIZ. PILOT	6	49.4	36.3	14.7	6.4	11.4	14.6	20	19.5	30
90656B9	STP L 2/2 Ø8 - Ø8 HORIZ. PILOT	8 ▲	57.3	52	18.7	9.1	13.8	18.7	24	21.4	36.2

▲ **Ø8** = Ø5/16"

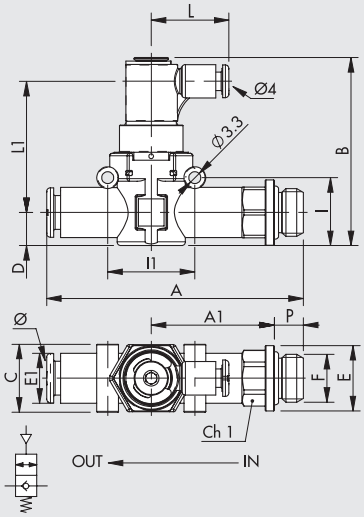
STP L 2/2 PIPE - G (BSP) THREAD, HORIZONTAL PILOT



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	I	I1	L	L1	Ch1
90658B3	STP L 2/2 Ø6 - 1/8 HORIZ. PILOT	6	1/8	6	58.5	27.8	36.3	14.7	6.4	14	11.4	14.6	20	19.5	30	12
90658B4	STP L 2/2 Ø6 - 1/4 HORIZ. PILOT	6	1/4	8	61.5	28.8	36.3	14.7	6.4	18	11.4	14.6	20	19.5	30	14
90658B5	STP L 2/2 Ø8 - 1/8 HORIZ. PILOT	8 ▲	1/8	6	66.2	31.8	52	18.7	9.1	15	13.8	18.7	24	21.4	36.2	14
90658B6	STP L 2/2 Ø8 - 1/4 HORIZ. PILOT	8 ▲	1/4	8	70.6	34.2	52	18.7	9.1	18	13.8	18.7	24	21.4	36.2	14
90658B7	STP L 2/2 Ø8 - 3/8 HORIZ. PILOT	8 ▲	3/8	9	72.2	34.8	52	18.7	9.1	22	13.8	18.7	24	21.4	36.2	17

▲ **Ø8** = Ø5/16"

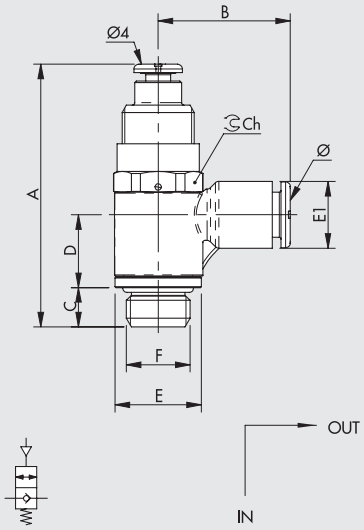
STP L 2/2 G (BSP) THREAD - PIPE, HORIZONTAL PILOT



Code	Ref.	Ø	F	P	A	A1	B	C	D	E	E1	I	I1	L	L1	Ch1
90657B3	STP L 2/2 1/8 - Ø6 HORIZ. PILOT	6	1/8	6	58.5	27.8	36.3	14.7	6.4	14	11.4	14.6	20	19.5	30	12
90657B4	STP L 2/2 1/4 - Ø6 HORIZ. PILOT	6	1/4	8	61.5	28.8	36.3	14.7	6.4	18	11.4	14.6	20	19.5	30	14
90657B5	STP L 2/2 1/8 - Ø8 HORIZ. PILOT	8 ▲	1/8	6	66.2	31.8	52	18.7	9.1	15	13.8	18.7	24	21.4	36.2	14
90657B6	STP L 2/2 1/4 - Ø8 HORIZ. PILOT	8 ▲	1/4	8	70.6	34.2	52	18.7	9.1	18	13.8	18.7	24	21.4	36.2	14
90657B7	STP L 2/2 3/8 - Ø8 HORIZ. PILOT	8 ▲	3/8	9	72.2	34.8	52	18.7	9.1	22	13.8	18.7	24	21.4	36.2	17

▲ **Ø8** = Ø5/16"

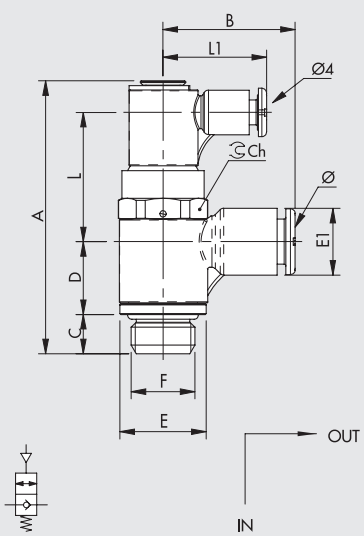
STP C 2/2



Code	Ref.	Ø	F	A	B	C	D	E	E1	Ch
9065A02	STP C 1/8 - Ø4	4 ▲	1/8	49.7	21	7.1	12.9	14	9.2	14
9065A08	STP C 1/8 - Ø6	6	1/8	49.7	22.3	7.1	12.9	14	11.3	14
9065A10	STP C 1/8 - Ø8	8 ▲	1/8	49.7	25.6	7.1	12.9	14	13.8	14
9065A09	STP C 1/4 - Ø6	6	1/4	54.3	24.3	9	15	18	11.3	17
9065A11	STP C 1/4 - Ø8	8 ▲	1/4	54.3	27.2	9	15	18	13.8	17
9065A12	STP C 1/4 - Ø10	10	1/4	54.3	28.6	9	15	18	16	17

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"

STP C 2/2 HORIZONTAL PILOT

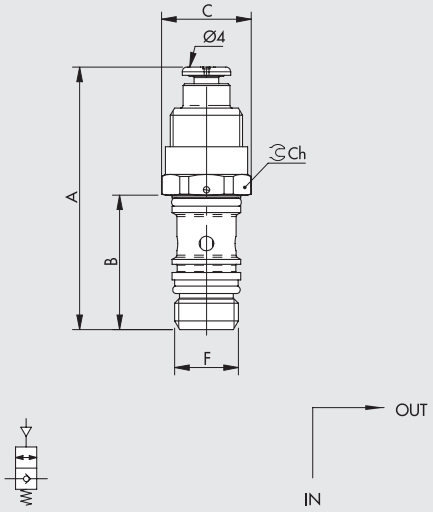


Code	Ref.	Ø	F	A	B	C	D	E	E1	L	L1	Ch
9065B02	STP C 1/8 - Ø4 HORIZ. PILOT	4 ▲	1/8	48	21	7.1	12.9	14	9.2	23	19.5	14
9065B08	STP C 1/8 - Ø6 HORIZ. PILOT	6	1/8	48	22.3	7.1	12.9	14	11.3	23	19.5	14
9065B10	STP C 1/8 - Ø8 HORIZ. PILOT	8 ▲	1/8	48	25.6	7.1	12.9	14	13.8	23	19.5	14
9065B09	STP C 1/4 - Ø6 HORIZ. PILOT	6	1/4	56.4	24.3	9	15	18	11.3	26.7	21.4	17
9065B11	STP C 1/4 - Ø8 HORIZ. PILOT	8 ▲	1/4	56.4	27.2	9	15	18	13.8	26.7	21.4	17
9065B12	STP C 1/4 - Ø10 HORIZ. PILOT	10	1/4	56.4	28.6	9	15	18	16	26.7	21.4	17

▲ **Ø4** = Ø5/32"; **Ø8** = Ø5/16"

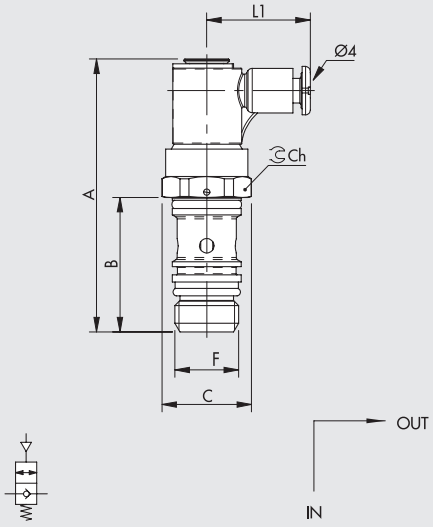
METAL WORK PNEUMATIC

STP S 2/2



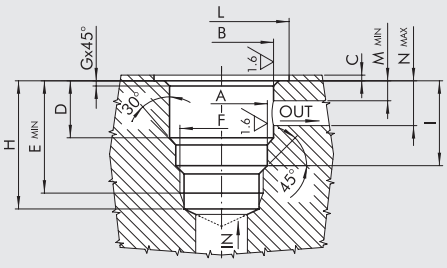
Code	Ref.	F	A	B	C	Ch
90650A1	STP S 1/8	1/8	49.7	24.3	15	14
90650A2	STP S 1/4	1/4	54.3	27.8	18.5	17

STP S 2/2 HORIZONTAL PILOT



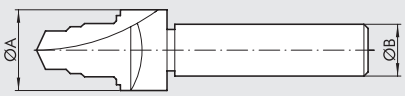
Code	Ref.	F	A	B	C	L1	Ch
90650B1	STP S 1/8 HORIZ. PILOT	1/8	48	24.3	15	23	14
90650B2	STP S 1/4 HORIZ. PILOT	1/4	56.4	27.8	18.5	26.7	17

SEDE STP S



Ref.	F	A	B	C	D	E	G	H	I	L	M	N
STP S	1/8	9.8 +0.1/-0	11.2 ±0.05	0.5 ±0.5	15.6 ±0.07	24.6	0.3	27	18.1 ±0.2	15.4	3.5	12
STP S	1/4	13.5 +0.1/-0	14.4 ±0.05	0.5 ±0.5	17.5 ±0.07	28	0.4	31.2	20.8 ±0.2	19.4	3.5	13.5

TOOL FOR STP S SEAT



Code	Ref.	Ø A	Ø B
9062001	UT.SE 1/8	16	12
9062002	UT.SE 1/4	20	15