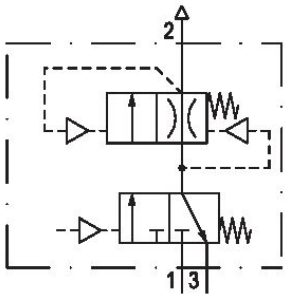
Filling unit, pneumatically operated, Series NL4-SSU

0821300954

General series information
Series NL4

- The AVENTICS Series NL maintenance units are suitable for all areas: as individual components or as assembled maintenance units, for centralized or decentralized compressed air preparation, in compact or powerful versions, for use in high or low temperatures. This line offers a complete, customizable compressed air preparation technology. It includes an option to combine every component in the Series to achieve the desired function, making it possible to adjust the components precisely to the application requirements.



Technical data

Industry	Industrial
Activation	Pneumatically
Parts	3/2-directional valve Filling valve
Nominal flow Qn	2500 l/min
Compressed air connection	G 1/2
Working pressure min.	0 bar
Working pressure max	16 bar
Connection type	Pipe connection
Sealing principle	Soft Seal

Type	Poppet valve
Pilot	Internal
Can be assembled into blocks	Can be assembled into blocks
Control pressure min.	2.5 bar
Control pressure max.	16 bar
Min. ambient temperature	-10 °C
Max. ambient temperature	60 °C
Medium	Compressed air Neutral gases
Max. particle size	5 µm
Compressed air connection, exhaust	G 1/2
Nominal flow Qn 1 to 2	2500 l/min
Nominal flow Qn 2 to 3	1600 l/min
Weight	1.69 kg

Material

Housing material	Die cast zinc
Seal material	Acrylonitrile butadiene rubber
Material, front cover	Acrylonitrile butadiene styrene
Material threaded bushing	Die cast zinc
Part No.	0821300954

Technical information

The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C .

Nominal flow Qn with secondary pressure p2 = 6 bar at Δp = 1 bar

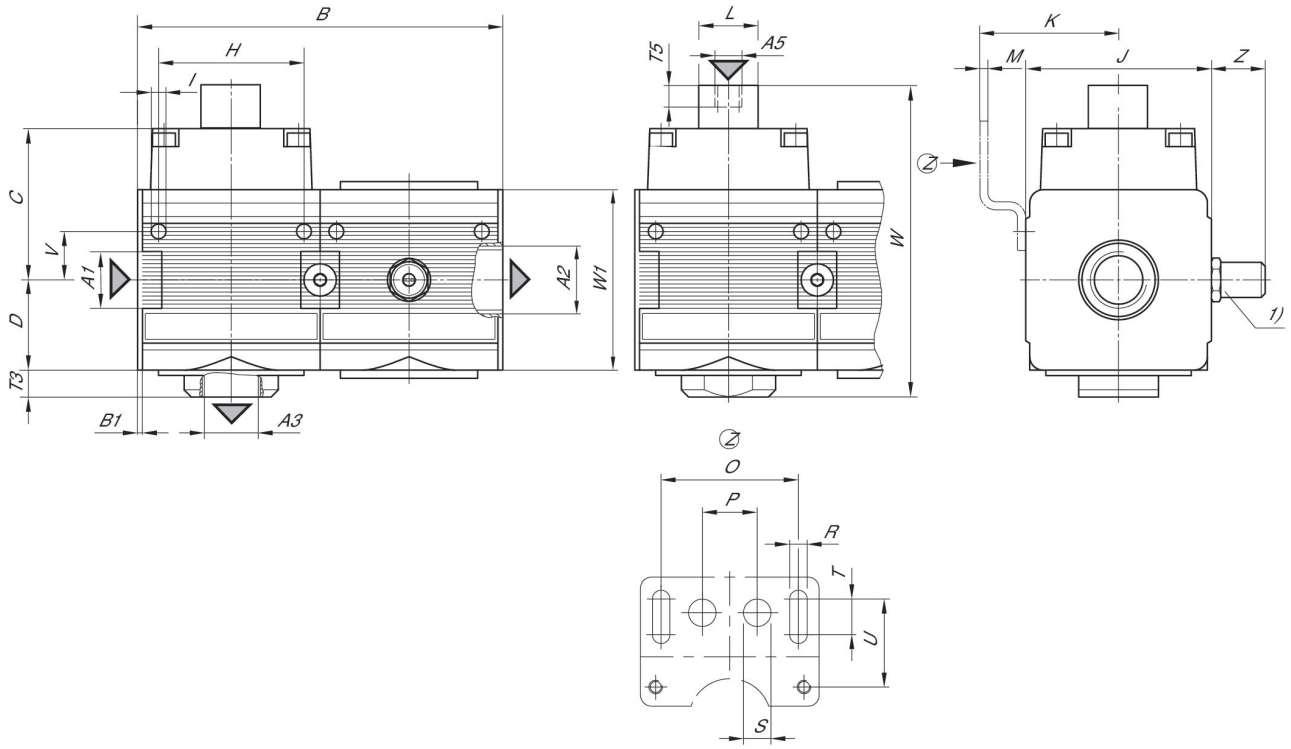
A change in the flow direction (from air supply on the left to air supply on the right) occurs by rotating installation by 180° about the vertical axis. Please see the operating instructions for further details.

The filling valve builds up pressure slowly in the pneumatic systems, i.e. prevents a sudden pressure build-up during a recommissioning after a mains pressure failure or avoids emergency OFF switching. This allows dangerous abrupt cylinder motions to be avoided.

Do not position filling valves or filling units upstream of open consumers, such as nozzles, air barriers, air curtains, since these may prevent through connection of components.

Filling with fixed diaphragm

Dimensions



A1 = input
A2 = output
A3 = ventilation port
A3 = ventilation port
A5 = Control pressure connection
1) Adjustment screw for filling time

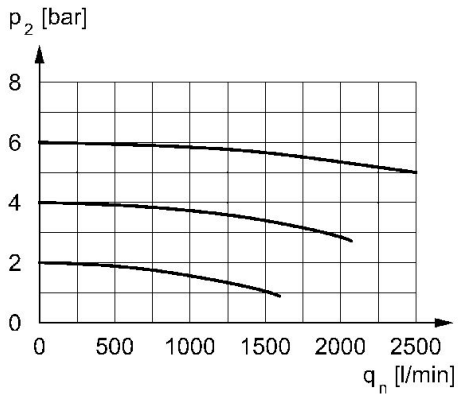
Dimensions in mm

Part No.	A1	A2	A3	A5	B	B1	C	D	H
0821300954	G 1/2	G 1/2	G 1/2	G 1/8	135.6	1.8	56.5	33.5	54
0821300949	G 1/2	G 1/2	G 1/2	G 1/8	135.6	1.8	56.5	33.5	54

Part No.	I	J	K	L	M	O	P	R	S
0821300954	5.5	69	54.5	22	3	50	20	6.4	20
0821300949	5.5	69	54.5	22	3	50	20	6.4	20

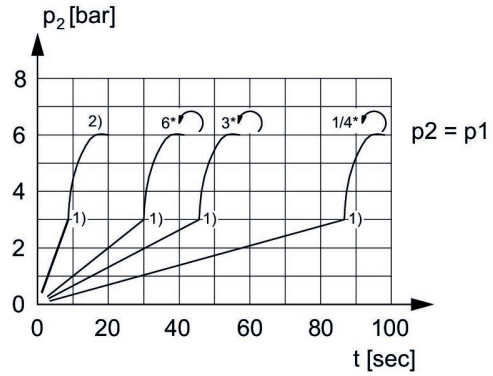
Part No.	T	T3	T5	U	V	W	W1	Z
0821300954	10	10	13	27.5	12.3	96	52	–
0821300949	10	10	13	27.5	12.3	96	52	20

Flow rate characteristic, p2 = 0,05 - 7 bar



p2 = Secondary pressure
qn = Nominal flow

Secondary pressure while filling



p1 = Working pressure
p2 = Secondary pressure
t = filling time, adjustable via adjustment screw (throttle)
1) Switching point: adjustable filling time, fixed change-over pressure ≈ 0.5 x p1 (50%)
2) Throttle fully opened
* Adjustment screw rotations