



SL1-8 DN...

## Sample Lines Type SL1-8 DN...

for applications in gas analysis technology

### Special Features

- Different materials
- Low tube tolerances
- Different diameters

### Application

The exactly dimensioned M&C flexible tubes SL1-8 DN... are used in gas analysis technology as flexible or stationary mounted transport lines for sample gas, test gas, compressed air, exhaust gas, ventilation, condensate and liquid samples in connection with the corresponding connection fittings from our delivery program. The flexible tubing is available in various cross-sections and materials to suit the different areas of application.

### Description

The M&C sample lines SL1-8 DN... are delivered in the available stock lengths and can be subject to manufacturing tolerances of  $\pm 5$  m [ $\approx \pm 16.4$  ft] from 40 m [ $\approx 131.2$  ft] coil length.

The material and diameter of the sample line must be selected according to the available operating data. Please refer to the technical data with regard to the temperature and pressure ranges. The table "Pressure drop and delay time for gases" contains further data on pressure loss and delay time depending on nominal diameter, tube length and flow rate.

Flexible Tubes	Type SL1-...					Type SL2-...		
Material/trademark	PTFE (polytetrafluorethylene)/Teflon®					FKM (fluorocarbon rubber)/Viton®		
Part No.	01U0010	02B1000	02B2000	02B2500	02B3000	90A0055	01T1000	01T1005
Flexible tube types-DN	SL1-0.7/2	SL1-4/6	SL1-6/8	SL1-8/10	SL1-10/12	SL2-2/4	SL2-4/6	SL2-6/8
Hose/tube ø ID x OD	0.7 x 2.0 mm	4 x 6 mm	6 x 8 mm	8 x 10 mm	10 x 12 mm	2 x 5 mm	4 x 6 mm	6 x 8 mm
Tolerance ø/wall thickness	DIN 7715-2					DIN 7715-2		
Operating temperature, max.	-190 to +200 °C [-310 to +392 °F]					-20 to +180 °C [-4 to +356 °F]		
Operating pressure, max. at 20 °C [68 °F]	0 to 11 bar abs.	0 to 11 bar abs.	0 to 9 bar abs.	0 to 7 bar abs.	0.5 to 5 bar abs.	0.1 to 7 bar abs.	0.3 to 5 bar abs.	0.4 to 4 bar abs.
Weight per meter	9 g/m	34 g/m	47 g/m	60 g/m	75 g/m	18 g/m	29 g/m	40 g/m
Length of tubes in stock	1/2/50 m [≈ 3.3/6.6/164 ft]	50/100 m [≈ 164/328 ft]	50/100 m [≈ 164/328 ft]	50/100 m [≈ 164/328 ft]	50 m [≈ 164 ft]	2/40 m [≈ 6.6/131 ft]	40 m [≈ 131 ft]	40 m [≈ 131 ft]
Smallest bending radius	10 mm [≈ 0.4"]	40 mm [≈ 1.6"]	70 mm [≈ 2.8"]	100 mm [≈ 3.9"]	150 mm [≈ 5.9"]	30 mm [≈ 1.2"]	40 mm [≈ 1.6"]	70 mm [≈ 2.8"]
Analysis quality, natural pure	Yes					Yes		
Non-adhesive surface	Yes					No		
UV-resistant	Yes					Yes		
Color	White translucent					Black		

Flexible tubes	Type SL3-...	Type SL4-...			Type SL5-...
Material/trademark	Novoprene	PVC (polyvinylchloride)			Tygon®
Part No.	01T2000	01T4000	01T4100	01T4200	01T4500
Flexible tube types-DN	SL3-3.2/6.4	SL4-4/6	SL4-4/8	SL4-6/8	SL5-3.2/6.4
Hose/tube ø ID x OD	3.2 x 6.4 mm	4 x 6 mm	4 x 8 mm	6 x 8 mm	1/8" x 1/4"
Tolerance ø/wall thickness	DIN 7715-2	DIN 7715-2			DIN 7715-2
Operating temperature, max.	-10 to +100 °C [14 to 212 °F]	-10 to +60 °C [14 to 140 °F]			-40 to +70 °C [-34 to +158 °F]
Operating pressure, max. at 20 °C [68 °F]	0 to 11 bar abs.	0.4 to 7 bar abs.	0 to 11 bar abs.	0.5 to 5 bar abs.	0.2 to 9 bar abs.
Weight per meter	43 g/m	22 g/m	40 g/m	31 g/m	33 g/m
Length of tubes in stock	1/10 m [≈ 3.3/33 ft]	100 m [≈ 328 ft]	5/100 m [≈ 16.4/328 ft]	100 m [≈ 328 ft]	5/15 m [≈ 16.4/49.2 ft]
Smallest bending radius	40 mm [≈ 1.6"]	40 mm [≈ 1.6"]	70 mm [≈ 2.8"]	70 mm [≈ 2.8"]	40 mm [≈ 1.6"]
Analysis quality, naturally pure	Yes	Yes			Yes
Non-adhesive surface	No	No			No
UV-resistant	Yes	Yes			Yes
Color	Beige	Clear			Clear

PVC tubes are not applicable for continuous use with overpressure.

Flexible tubes	Type SL6-...	Type SL7-...			Type SL8-...
Material	PFA (perfluoroalkoxy)	PA (polyamide), Nylon flexible			PE (polyethylene)
Part No.	01T5000	01T6000	01T6100	01T6200	01T7000
Flexible tube types-DN	SL6-4/6	SL7-4/6	SL7-6/8	SL7-8/10	SL8-4/6
Hose/tube ø ID x OD	4 x 6 mm	4 x 6 mm	6 x 8 mm	8 x 10 mm	4 x 6 mm
Tolerance ø/wall thickness	DIN 7715-2	DIN 7715-2			DIN 7715-2
Operating temperature, max.	-180 to +200 °C [-292 to +392 °F]	-10 to +70 °C [14 to 158 °F]			-20 to +60 °C [-4 to +140 °F]
Operating pressure, max. at 20 °C [68 °F]	0 to 11 bar abs.	0 to 26 bar abs.	0 to 19 bar abs.	0 to 15 bar abs.	0 to 9 bar abs.
Weight per meter	34 g/m	17 g/m	23 g/m	30 g/m	15 g/m
Length of tubes in stock	25 m [≈ 82 ft]	50 m [≈ 164 ft]	50 m [≈ 164 ft]	50 m [≈ 164 ft]	50 m [≈ 164 ft]
Smallest bending radius	100 mm [≈ 3.9"]	40 mm [≈ 1.6"]	70 mm [≈ 2.8"]	100 mm [≈ 3.9"]	40 mm [≈ 1.6"]
Analysis quality, naturally pure	Yes	Yes			Yes
Non-adhesive surface	Yes	No			No
UV-resistant	Yes	Yes			No
Color	Semi-clear white	Semi-clear white			Semi-clear white

Other materials, dimensions or colored versions are available.

To cut the tube accurately, we recommend: Hose cutter, PartNo. 10T1000

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## Pressure drop and delay time for gases

In tubes depending on inside diameter, tube length and flow rate.

Hose-/Tube inside ø mm	Tube length m	Volume l	Flow rate NI/hr	Pressure drop mbar	Delay time* approx. sec.
4	15	0.188	200	40	3
			400	90	1.7
			600	170	1.1
			800	280	<1
4	30	0.376	200	70	7
			400	170	3.4
			600	275	2.3
			800	>500	1.7
4	60	0.752	200	200	13.7
			400	>500	6.8
6	15	0.424	200	6	7.7
			400	12	3.8
			600	25	2.5
			800	42	1.9
			1000	60	1.5
			1200	84	1.3
6	30	0.848	200	13	5.4
			400	27	7.6
			600	50	5
			800	80	3.8
			1000	110	3
			1200	145	2.5
6	60	1.696	200	25	30.8
			400	53	15.2
			600	90	10
			800	132	7.6
			1000	187	6.0
			1200	300	5.1
			1400	>500	4.8

\* Only change of one sample volume, to reach 90% response time approx. 3 changes of sample volume are required