

Melt pressure sensor / Melt pressure transmitter

(Price on demand)

Ratings

Type designation

S-MD-st-u-vwxy-z

Spacer	Technical execution
s	Connecting thread
1	½ " 20 UNF 2A
2	M18 x 1.5
t	Shaft length
1	152 mm rigid
2	250 mm rigid
3	318 mm rigid
4	152 mm rigid + 457 mm flexible capillary tubes
u	Pressure range
50	0...50 bar
100	0...100 bar
200	0...200 bar
350	0...350 bar
400	0...400 bar
500	0...500 bar
600	0...600 bar
700	0...700 bar
800	0...800 bar
1000	0...1000 bar
v	Transfer medium
1	NaK-liquid metal
2	Mercury
w	Precision
1	±0.5 % of final value
2	±1 % of final value
x	Sensitivity / Analogue output
1	1 mV/V
2	2 mV/V
3	3.33 mV/V
4	4 - 20 mA / 2-conductor
5	0 - 10 V / 4-conductor
6	2 - 10 V / 4-conductor
4.4	4 - 20 mA / 4-conductor
y	Type of material of diaphragm
1	stainless steel, material no. 1.4545, coated with TiN ceramics
2	Hastelloy, material no. 2.4610, coated with TiN ceramics
3	Inconel, material no. 2.4668, coated with TiN ceramics
4	reinforced diaphragm of stainless steel, material no. 1.4545, coated with TiN ceramics
5	reinforced diaphragm of Inconel, material no. 2.4668, coated with TiN ceramics
z	Options
0	Options are not defined.



Ratings

Model:	S-MD-xx-x-1 / S-MD-xx-x-2
Filling medium:	Mercury / Sodium- Potassium (NaK)
max. diaphragm temperature:	400°C / 550°C
Pressure range:	0 - 50 ...0 -2000 bar / 0 - 50 ...0 -700 bar
max. overload:	1.5 x measuring range up to 1000 bar 1.25 x measuring range bigger than 1000 bar
Total measuring error:	≤0.5% of full scale or ≤1%
Resolution:	infinite
Bridge resistance:	350 Ohm ±3%
Supply voltage:	with all mV/V signals: max. 12 VDC with analogue output 4: 12 ... 30 VDC with analogue output 4.4: 24 VDC ±10%
Null balance:	±5% of full scale
Output signal:	1 mV/V / 2 mV/V / 3.33 mV/V ±3% 0 (2)...10 V 4 - 20 mA
Internal calibration point:	80%
Reproducibility:	±0.20% of full scale / ±0.20% F. S.

Temperature influences at the diaphragm:

Change of zero point: ≤ ±0.015% of full scale / K

Change of sensitivity: ≤ ±0.010% of full scale / K

Temperature influences at the measuring head:

Change of zero point: ≤ ±0.020% of full scale / K / ≤ ±0.03% of full scale

Change of sensitivity: Measuring range / range ≥ 100 bar 0.02% / K
Measuring range / range ≥ 50 bar 0.03% / K