

SERIE GMD/GL-DAI "GREENLINE"

Melt Pressure Transducers with
mA or V output signal

Features

- Output signal 4-20mA / 0-10VDC
- Pressure range 0 up to 2000bar
- Accuracy 0,50% (linear)
- Temperature compensated
- Free of Mercury or NAK
- Operating point calibration at 200 °C
- 6-Point calibrated
- MADE IN GERMANY



General explanations



Gräff Melt Pressure Transducers of the "SERIES GMD / GREENLINE" are particularly characterized by increased service life, high material quality, precise measurement behavior and as a food-grade transmission medium. Our sensors are made entirely of stainless steel. Thanks to the use of a special and new type of membrane, the known errors of a membrane tear during melt shrinkage are a thing of the past. A special coating protects the membrane against sticky and abrasive substances. The result of selected materials, a special manufacturing process and the high-precision electronics unit ensure a stable measuring process without the known disturbance of temperature drift, such as with the NaK filling medium! By dispensing with environmentally harmful materials, our sensors can also be used in the food and pharmaceutical sectors (FDA compliant). All Gräff melt pressure transducers are manufactured exclusively in Germany. We guarantee very short delivery times of max. 2-3 weeks! All Gräff Melt Pressure Transducers are already available in different shaft lengths and in different capillary lengths!

Technical Data (overview)

- | | |
|---|---|
| <ul style="list-style-type: none"> ● Output signal
4 - 20 mA / 0 - 10 VDC ● Supply voltage
12 - 36 VDC ● Prozess connection
1/2"-20UNF / M18x1,5 / M10x1 ● Calibration point
80% f.EV. ● Variable shaft lengths (RIGID Version)
38mm bis 457mm in standard | <ul style="list-style-type: none"> ● Variable capillary lengths (FLEXIBLE Version)
Stainless steel tube up to max. 2000mm ● Process temperature of the diaphragm
max. +450°C depending on the filling liquid ● Version of the diaphragm
High flexible, special coated stainless steel diaphragm ● Max temperature of the electronic head
max. +125°C ● Maximum pressure overload
2 times the measuring range |
|---|---|

HOUSING

Material - Housing

Stainless steel 1.4571

Plug

Amphenol 6pole Bajonett (Standard)

Diaphragm

Stainless steel, high flexible

Coating

Special coating, Anti adhesive

TECHNICAL DETAILS

Pressure measuring range

0bar to 2000bar

Calibration point

80% of measuring range

Accuracy

Better 0,50%, Linear

Maximum overload

2-times the measuring range

Zero adjustment during Temperature change at the membrane

Max. 0,02bar vom Ew./°C

Zero adjustment at Temperature change on Connection head

Max. 0,003% from ev./°C

Max. Diaphragm temperature

+450°C depending on the filling liquid / version

Maximum Temperature Measuring head

+125°C

Filling liquid

Mercury free (max. 300°C operating temp.)

NAK or Mercury (max.450° operating temp.)

Bridge resistance

350 Ohm

Reproducibility in % v.EV.

+/-0,1%

Insulation resistance

1000MOhm at 50°C

IN-/ OUTPUT SIGNALS

Supply

12...36VDC

Output signals

4-20mA / 0-10VDC, 2-/3-/4-wire

ENVIRONMENTAL CONDITIONS

Operating temperature

+300 °C / +450°C (Shaft temperature)

Relative humidity

20...95 %, no condensation

Storage temperature

-20...+125 °C

Protection type

IP-65 (Housing) IP-55 (Plug)

Measures

Check drawings

Electrical connection

PIN	2-wire	3-wire	4-wire
A	Sp./Sig.+	Sig.+	Sig.+
B	Sp./Sig.-	Sp.Sig.AZ-	Sig.AZ-
C	FREE	Sp.+	Sp.+
D	AZ+	FREE	Sp.AZ-
E	80%+	AZ+	AZ+
F	AZ/80%-	80%+	80%+

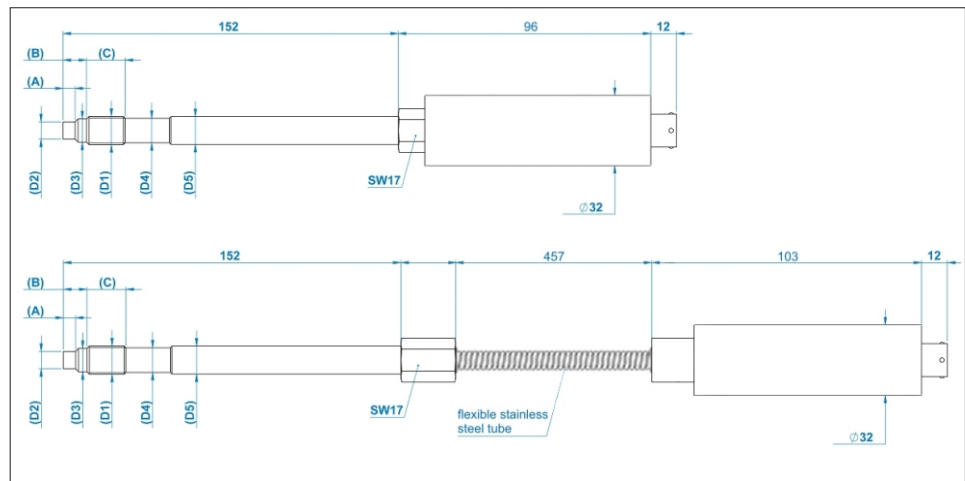
80% = 80% Shunt

Sp. = Supply

Sig. = Signal

AZ = AutoZero

MEASURES



	D1	D2	D3	D4	D5	A	B	C	SW
M18x1,5		10 ^{-0,05}	16 ^{-0,1}	16 ^{-0,5}	16	6 ^{-0,25}	14	20	17
1/2"20UNF 2A		7,8 ^{-0,5}	10,5 ^{-0,05}	10,5 ^{-0,5}	12,5	5,6 ^{-0,1}	10,8	17	17
M10		6,0 ^{-0,05}	8,53 ^{-0,05}	8,5	8,5	6,5 ^{-0,25}	11	16	14

OTHER AVAILABLE VERSIONS

- Melt pressure transducer with mV/V output incl. Thermocouple or Pt100
Code: DTA (check the DTA datasheet)
- Melt pressure transducer with mV/V output
Code: DA (check DA datasheet)
- Melt pressure transducer with mA or V output incl. Thermocouple or Pt100
Code: DTAI (check DTAI datasheet)
- Melt pressure transducer 1114-1 (Performance Level "C")
Code: HPL (check HPL datasheet)

