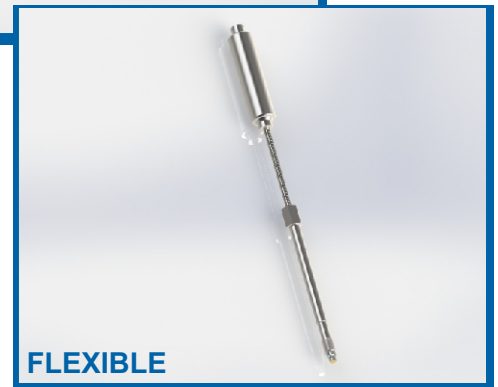


## SERIES GMD/HPL "HIGH PERFORMANCE LEVEL"

Melt pressure transducers  
Performance Level "C"  
according to EN 1114-1:2010,  
EN ISO 13849-1:2015 (PL c/Kat.1)

### Features

- Pressure ranges from 17 up to max. 1000 bar
- Rigid or flexible stem available
- Housing made of stainless steel 1.4571
- High accuracy 0,25% / 0,50%
- Electrical connection 7-pole Bayonet
- Self-diagnosis function
- TÜV Rheinland authorization according to EN 1114-1 (safety-relevant component for extruder machines)
- MADE IN GERMANY



### General explanations

According to the current European safety regulation EN ISO 13849-1: 2015 (PL c / Cat.1), a melt pressure sensor must be considered as a safety-relevant machine component.

For this reason, we have equipped our technically proven mass pressure sensors with a potential-free contact as a semiconductor relay output. In addition, the "new" HPL sensors have an automatic self-test function for monitoring all relevant functions such as strain gauge bridge voltage, undervoltage, wire break, bridge compensation, membrane status, switching output etc.

Upon customer request, we set the switch-off point up to max. 100% of the end value of the sensor. Our HPL sensors are mercury and NaK free!

### Technical Data (overview)

- Installation length  
Standard 152 mm or customized
- Output signals  
0-10VDC, 0(4)-20mA in 3-/4-wire
- Diaphragm  
Material 1.4571, reinforced and coated
- Mercury free version (NTX technology)  
Plastics / Food / Pharmaceutical industry
- Process connection  
1/2" 20UNF-2A, M18x1,5 (via adaption)
- Maximum Process temperature resistance of electronic components + 85°C
- Safety switch  
48V AC/DC, 500mA as contactless SSR output
- Supply voltage  
10 - 30 VDC
- Special feature  
Two-point calibration close to operating temperature!
- Safety shutdown  
max. 100% from endvalue  
or if there is an error during the self-test!

## Technical Data

### Housing

#### Material

Stainless steel 1.4571

#### Plug

Amphenol 7pol. Bayonet

#### Diaphragm

Stainless steel

#### Coating

Special coating - non-stick coating

### TECHNICAL DETAILS

#### Pressure ranges

17bar up to 1000bar

#### Calibration point

80% of measuring range

#### Accuracy

Max. 0,50%, Linear

#### Maximum overload

150% of measuring range

#### Zero adjustment during

#### Temperature change at the membrane

Max. 0,02bar vom Ew./°C

#### Zero adjustment during

#### Temperature change at the measuring head

Max. 0,003% vom Ew./°C

#### Maximum temperature diaphragm

+400 -550°C depending on filled liquid

#### Maximum temperature measuring head

+85°C

### Safety shutdown

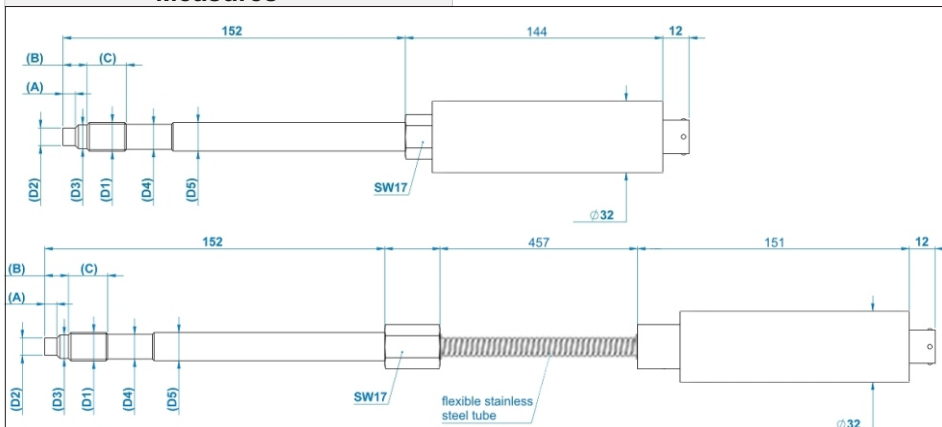
#### Safety switching output:

Max. 48V AC/DC, 500mA

#### Protection

Quick fuse

### Measures



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

### Guidelines and Standards

#### Guidlines

2006/42/EG, Machine guideline  
2002/95/EG, RoHS guideline  
2004/108/EG, EMV guideline

#### Applied Standards

EN 1114-1:2011  
EN ISO 13849-1:2015  
EN 61000-6-2:2005  
DIN EN ISO 9001:2008  
IEC 61508, Teil 1/2, 4-7:2010

#### Safety data

PFH (1/h): 3,76E-08  
PFDavg: 3,29E-03 (20 Years of operation)  
MTTFd: 2469 Years  
DC: No diagnosis

### Self monitoring

#### Security self monitoring DMS

Bridge voltage  
Supply voltage  
Bridge resistances  
Bridge adjustment  
Diaphragm condition (Defekt etc.)

#### Security self monitoring electronics

Supply voltage  
Electronics self test  
Output signal  
Safety shutdown

### INPUT-/OUTPUT SIGNALS

#### Supply

10...30VDC

#### Output signals

0...10VDC; 0...20mA; 4...20mA

### ENVIRONMENTAL CONDITIONS

#### Operating temperature

0...300 °C / 400°C (diaphragm)

#### Relative humidity

20...95 %, no condensation

#### Storage temperature

-20...+80 °C

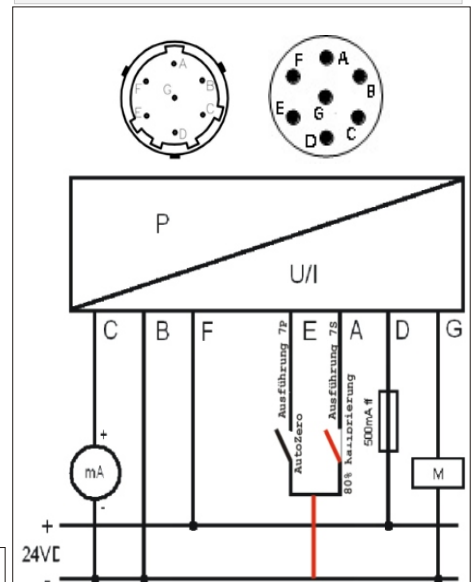
#### Protection type

IP-55

#### Measures

Check drawings

### Electrical connection



Functional Safety Type Approved

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