

High Range Differential Pressure Transducer

Accuracy 0.25%

Description

measuring task at hand.

membranes are welded.

Standard

2 mV/V or 4...20 mA or 0...10 VDC

High range differential pressure transducers

provide the user with the perfect solution for the

High line pressure, long-term stability, peak

pressure resistance, corrosion resistance and a high level of mechanical safety make them suitable

The graduated measurement ranges cover from 0 ... 140 bar to 0 ... 600 bar. The case and wetted parts are made from stainless steel to make them

resistant to aggressive media. Both pressure

chambers are hermetically sealed and the

for the most demanding measuring tasks.

- 4-wire 2-wire
- 3-wire



Features

- High line pressure
- High peak pressure resistance
- High long-term stability
- Mechanically safe design
- Corrosion resistant stainless steel housing and wetted parts

Measuring ranges

Differential pressure 0 ... 140 bar to 0 ... 600 bar Line pressure up to 700 bar

Applications

Test stands

Flow measurement

Pump monitoring

Hydraulic cylinder monitoring

Measurment range Max. overload either side ΔP (bar) P _{max} (bar)		Max. line pressure line _{max} (bar)
0 160	320	
0 250	500	
0 400	700	$line_{max} = P_{max} - \Delta P$
0 600	700	

Other ranges and units on request

Sales national Fax: +49 69 5806-170

Technical data

	Differential Pressure Transducer		
Model	P3312		
Execution	Differential Pressure		
Process Connection			
standard	2x G1/4 female		
optional	2x 1/4 NPT female		
Measuring principle	Bonded foil strain gauge		
Measurement range (ΔP)	0 140 bar to 0 600 bar $\Delta P = P_1 - P_2$		
Max. overload ¹⁾ (either side)	$0 \dots 140$ bar to $0 \dots 200$ bar $P_{max} = \Delta P + 100\%$		
	0 250 bar to 0 600 bar $P_{max} = \Delta P + 50\%$		
	max. 700 bar		
Max. Line pressure ¹⁾	$line_{max} = P_{max} - \Delta P$		
Materials			
Housing	Stainless steel 1.4542		
Wetted parts	Stainless steel 1.4542		
Output signal	Span zero signal		
mV/V	2.0 mV/V $4 - wire 0 \pm 1.0\%$ of F.S.		
420 mA	2 – wire (optional: 3 – wire)		
010 VDC	3 – wire		
	others on request		
Power Supply			
mV/V	10 VDC		
420 mA	12 – 40 VDC		
010 VDC	15 – 28 VDC		
Bridge Resistance	350 Ω (2 mV/V)		
Accuracy ²⁾	± 0.25 % of F.S.		
	others on request		
Repeatibility	$\leq \pm 0.05$ % of F.S.		
Temperature ranges			
storage	-50120°C		
media	-50120°C		
ambient	-50120°C		
compensated range	1570°C (others on request)		
TK _N	± 0.009% of F.S. /K		
TKs	± 0.009% reading/K		
Electr. connection			
standard	Bayonet 6-pin		
optional	DIN EN 175301-803, Form C		
Protection type			
PTIH-10-6P	IP67		
DIN 175301-803	IP65		
Weight	1.6 kg		

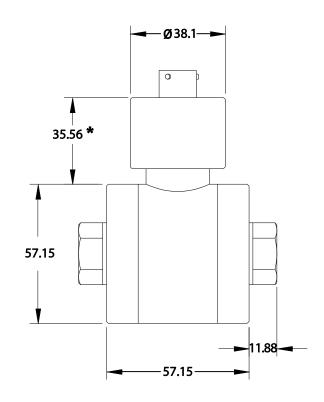
of F.S. = of full scale value P_1 = pressure 1 P_2 = pressure 2 = line pressure ΔP = differential pressure $line_{max}$ = max. line pressure P_{max} = max. overload

¹⁾ The maximum pressure is the pressure that is permitted simultaneously on both ports of a differential pressure transducer. The line pressure is the lower absolute value seen on either side. The result of adding the line pressure to the pressure to be measured must also not exceed the maximum value. Example: measuring range 0 - 400 bar differential pressure a) P1=540 bar and P2 = 140 bar or b) P1=0 bar and P2 = 400 bar

²⁾ Terminal point adjustment includes non-linearity and hysteresis.

Dimensions (mm)

Housing

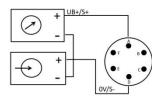


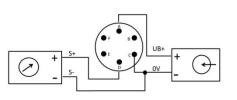
*63.5 with amplifier

Electrical connection

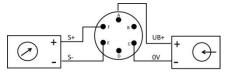
Bayonet 6-pin

2 - wire





3 - wire



4 - wire

Analogue output Electrial connection	4…20 mA 2-wire pin	010 V/420 mA 3-wire pin ¹⁾	mV/V 4-wire pin ²⁾
Supply: UB+	А	A	А
Supply: 0V	D	С	С
Signal: S+	А	D	F
Signal: S-	D	С	E

Pin C and B are connected internally. Pin A and B are connected internally./Pin C and D are connected internally 2)

Subject of technical changes

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