

● Characteristics

2 - TRANSDUCER -



Pressure:	positive / negative / differential / absolute
Range:	0...0,1 hPa up to 0...1200 hPa (only absolute)
Output:	0...20 mA / 4...20 mA / other options available
Accuracy:	1% / 0,5% / 0,2% of end scale value
Operating temperature:	10...+50 °C (option: -10...+60°C)
Material casing:	ABS (option: stainless steel)
Pressure connection:	for flexible hose Ø 6 mm
Electrical connection:	Terminals via screwed cable gland
Protection:	IP54

● Technical Data

Pressure Input

Positive / negative overpressure,

Differential pressure: 0...0,1 hPa up to 0...1000 hPa

Absolute pressure: 0...500 up to 800...1200 hPa

Ranges: see tables page 3

Output

0...20 mA: Load: $\leq 500 \Omega$

4...20 mA¹: Load: $\leq 500 \Omega$

± 10 V: Load: $\geq 2 \text{ k}\Omega$

± 5 V: Load: $\geq 2 \text{ k}\Omega$

Special options:

Square root output signal²: 0...10 V

Square root output signal²: 0(4)...20 mA

Limit contacts: 1 or 2 relay, changeover contacts, 6A 230 VAC

Important notes:

1.) Voltage of square root output signal is: $U = (10 \times UL)$ Current: $I = (20 \times IL)$ (UL/IL =linear output)

2.) An output of 4...20 mA is incompatible with measurement ranges using non-zero starting points

Supply

Version: 2-wire / 3-wire / 4-wire (special model option)

Standard: 24 VDC

Options: 19...35 VDC (Note: For 2-wire version 12...32 VDC)

230 VAC

115 VAC

24 VAC

Consumption: approx. 10 mA without load

auto zero: approx. 50 mA

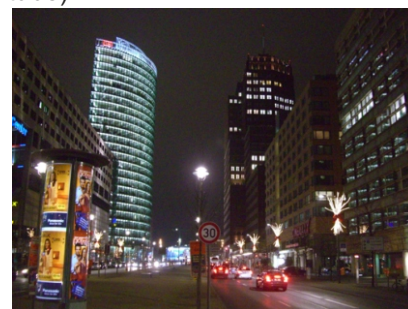
limit contacts: approx. 35/45 mA

● Applications

For use in clean-room technology, medical engineering, filter technology, heating and ventilating technics, air conditioning systems, level measuring (bubbling-through), flow rate (pressure tube).



Photos: www.pixelquelle.de



● Technical Data (Continued)

Accuracy

Linearity:	Standard:	±1% of end scale value (FS)
	Options:	for positive/negative overpressure and differential pressure: ±0,5% FS < 1 hPa ±0,2% FS < 2,5 hPa for absolute pressure: ±0,5% FS ΔP < 200 hPa ±0,2% FS ΔP < 100 hPa

Note: The options are not available with square root function.

Hysteresis:	±0,1% FS maximum
Temp. drift:	Zero: ±0,3% FS, 10 K maximum Span: ±0,3% of end scale value / 10 K (maximum)
Stability:	±0,5% per year, typically (long term)
Time constant:	T90 approx. 0,02 s

Environmental Conditions

Operating temperature:	Standard:	+10...+50°C
	Option:	-10...+60°C (extended range)
Storing:	-10...+70°C	
Humidity:	up to 80% relative humidity	
Material:	Standard:	non-corrosive gases
	Option:	stainless steel version for corrosive gases
in contact with medium:	Ni, Al, CuBe, PU	

Display

Standard:	No
Option:	LC-display, 3.5 digits

Mechanics

Dimensions:	see page 3
Material casing:	Standard: ABS Option: stainless steel
Pressure terminal:	Ø 6,6 x 11 mm (for flexible hose Ø = 6 mm)
Protection:	class II, IP 54
Weight:	approx. 300 g
with power unit:	approx. 400 g
Connection:	terminal screw (maximum 1,5 mm ²) via screwed cable gland M12x1,5
Overload capacity:	range up to 400 hPa: 5x nominal pressure range > 400 hPa: 2x nominal pressure ΔP: maximum system pressure 1 bar Option: up to 2 bar
Principle:	inductive (measurement)
Shock resistance:	10 g
Volume of sensor:	approx. 3 ml
Increase in volume:	approx. 0,2 ml (nominal pressure)
Standards and guidelines:	
2014/35/EU:	Low voltage directive
2014/30/EU:	EMC directive
2011/65/EU:	RoHS directive
DIN EN 61326-1:2013:	Electr. equip. for measurement, control and laboratory use -EMC req.- Part 1
DIN EN 61000-3-2:2014:	Electromagnetic compatibility (EMC) - Part 3-2
DIN EN 61000-3-3:2013:	Electromagnetic compatibility (EMC) - Part 3-3
DIN EN 50581:2012:	TD for the assessment of electr. and electronic products with respect the restriction of hazardous substances

● Technical Data (Continued)

Pressure Ranges

Table positive / negative overpressure, differential pressure (in hPa)

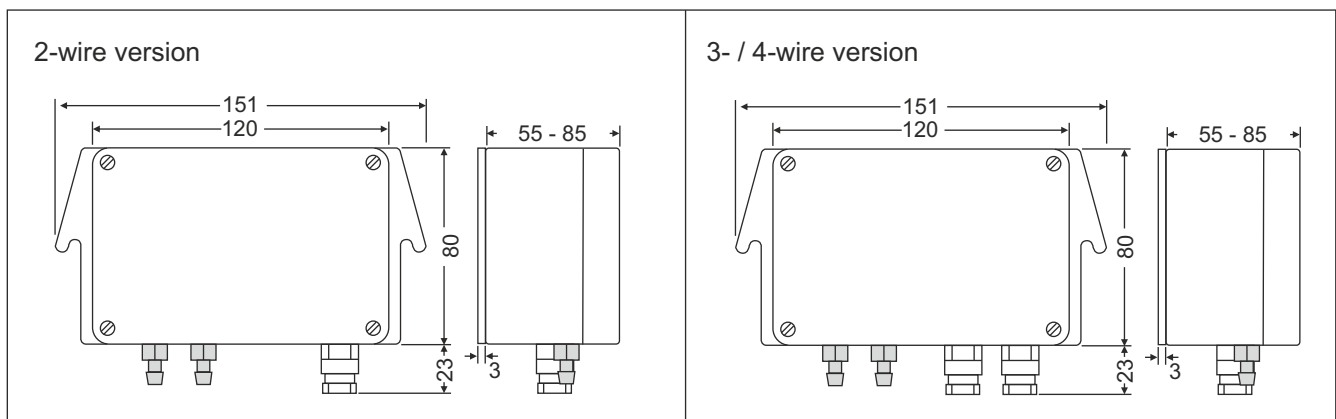
Measurement range	0...0,1	0...0,2	0...0,3	0...0,4	0...0,5	0...0,6	0...1,0	0...1,6
Overload limit	0,5	1	1,5	2	2,5	3	5	8
Measurement range	0...2,5	0...4	0...5	0...6	0...10	0...40	0...16	0...20
Overload limit	12,5	20	25	30	50	80	80	100
Measurement range	0...25	0...50	0...100	0...160	0...200	0...250	0...400	0...500
Overload limit	125	250	500	800	1000	1250	800	1000
Measurement range	0...600	0...1000						
Overload limit	1200	2000						

Table absolute pressure (in hPa)

Measurement range	0...500	0...1000	500...1080	900...1100	800...1200			
Overload limit	1000	2000	2160	2200	2400			

More measurement ranges on request.

● Dimensions (in mm)



Dimensions of enclosure

Dimensions of enclosures of the pressure measuring transducers (length x width x height) in mm	120x80x55	120x80x70	120x80x85	122x120x75	122x120x105
≥ 0,5 hPa, standard	X				
≥ 0,5 hPa, limit contact			X		
≥ 0,5 hPa, LCD display		X			
≥ 0,5 hPa, limit contact, LCD display			X		
≥ 0,5 hPa, auto zero				X	
≥ 0,5 hPa, auto zero, LCD display				X	
≥ 0,5 hPa, auto zero, limit contact, LCD display					X
< 0,5 hPa, standard, auto zero				X	
< 0,5 hPa, auto zero, LCD display					X
< 0,5 hPa, auto zero, limit contact				X	
< 0,5 hPa, auto zero, limit contact, LCD display					X

● Ordering Code

		D	N	X	X	X	X	X	X	-	X	X	X
Type:	Absolute pressure			0									
	Over-, under-, differential pressure			1									
	Differential pressure, auto zero			5									
	Over-, under- pressure, auto zero			6									
Output:	0...10 VDC			1									
	0...20 mA			2									
	4...20 mA ¹			3									
	0...10 VDC, square root function			4									
	0...20 mA, square root function			5									
	4...20 mA, square root function ¹			6									
	4...20 mA, 2-wire (no auto zero) ¹			7									
	4...20 mA, 2-wire, square root (no auto zero) ¹			8									
Power supply:	230 VAC					1							
	115 VAC					2							
	24 VAC					3							
	24 VDC					4							
Limit contacts:	1 change over-contact 230 VAC / 6A							1					
	2 change over-contacts 230 VAC / 6A							2					
Display:	LCD, 3,5 digits							1					
Characteristic curve deviation:	±1% of end scale value									1			
	±0,5% of end scale value									2			
	±0,2% of end scale value									3			
Measuring range:	Standard											0	
	Special range											1	
	Range 1 hPa...<2,5 hPa											3	
	Range 0,5 hPa...< 1 hPa											4	
	Range < 0,5 hPa (auto zero)											5	
Other/accessories:	special model												0

For special model options, for example different output-versions, see Technical Data

1) **Note:** These options are incompatible to measurement ranges with special model option non-zero starting points.