

P3MBP BlueLine

Ultra high pressure transducers

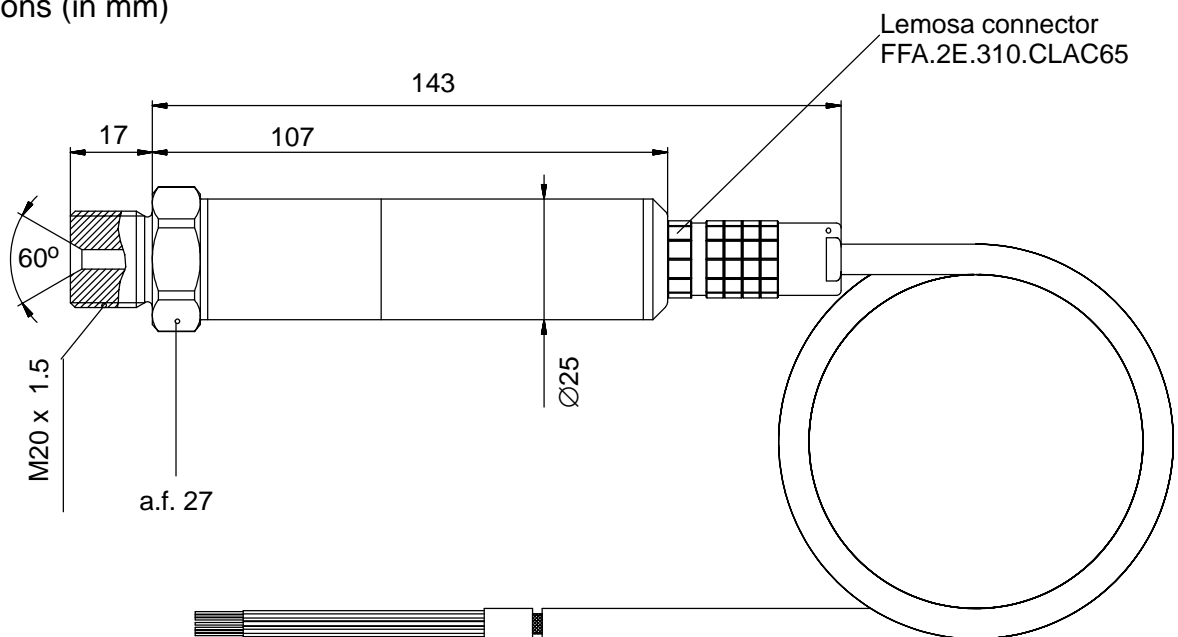
High-pressure Transducers up to 15000 bar



Special characteristics

- For static and dynamic pressure variance, pressure peaks, pressure fluctuations
- Extremely reliable and stable
- Measuring ranges 5000 bar, 10000 bar, 15000 bar
- Monolithic design, measuring body without a welded seam
- Principle of measurement: foil strain gage
- High load-cycle count
- Degree of protection IP67
- Corrosion-resistant

Dimensions (in mm)



Connection cable 2-9268.0835; 7 m long
(list of components supplied)

Specifications according to DIN 16086

Type	P3MBP BlueLine			
Mechanical input quantities				
Pressure type		Absolute pressure		
Principle of measurement		Foil strain gage		
Measuring range, 0 bar...	bar	5000	10000	15000 ¹⁾
Input characteristics				
Accuracy class		0.2	0.4	0.5
Initial value	bar	0		
Operating range at reference temperature	%	120		
Overload limit at reference temperature	%	120		
Test pressure	%	200	130	100
During dynamic loading				
Permissible pressure	%	100		
Permissible vibration amplitude according to DIN 50 100	bar	3500	5000	6000
Dead volume (with supplied packing)	mm ³	210	250	
Control volume	mm ³	approx. 1		
Output characteristics				
Nominal (rated) sensitivity	mV/V	1		
Sensitivity tolerance	%	< ±0.2	< ±0.4	< ±0.5
Effect of temperature on the zero signal in the nominal (rated) range of the excitation voltage per 10K, by reference to the nominal (rated) sensitivity				
in the nominal (rated) temperature range	%	±0.1	±0.2	±0.2
in the operating temperature range	%	±0.15	±0.25	±0.25
Effect of temperature on sensitivity in the nominal (rated) range of the excitation voltage per 10K, by reference to the actual value				
in the nominal (rated) temperature range	%	±0.1	±0.2	±0.2
in the operating temperature range	%	±0.3	±0.4	±0.4
Characteristic curve deviation (start setting)	%	0.2	0.4	0.5
Repeatability according to DIN 1319	%	< ±0.05		
Fundamental resonance frequency	kHz	> 100		
Input resistance at reference temperature	Ω	350 ±5		
Output resistance at reference temperature	Ω	350 ±1.5		
Isolation resistance at 100V AC	MΩ	5000		
Excitation voltage				
Nominal (rated) excitation voltage	V	2.5		
Operating range	V	0.5 ... 10		
Ambient conditions				
Reference temperature	°C	+23		
Nominal (rated) temperature range	°C	-10...+80		
Operating temperature range	°C	-40...+100		
Storage temperature range	°C	-50...+100		
Impact resistance (tested under DIN 40 046)				
Impact acceleration	m/s ²	1000		
Impact duration	ms	4		
Impact form		Half sine wave		
Mechanical specifications				
Pressure connection 1-P3MB		M20 x 1.5 with sealing cone 58° in unit with packing for the measurement hole		
Electrical connection		Lemosa connector ERA.2E.310.SLL		
Bending radius				
static	mm	35		
dynamic	mm	75		
Mounting position		any		
Dimensions	mm	Ø25 x 123		
Weight without cable approx.	g	approx. 200		
Protection system		IP67		

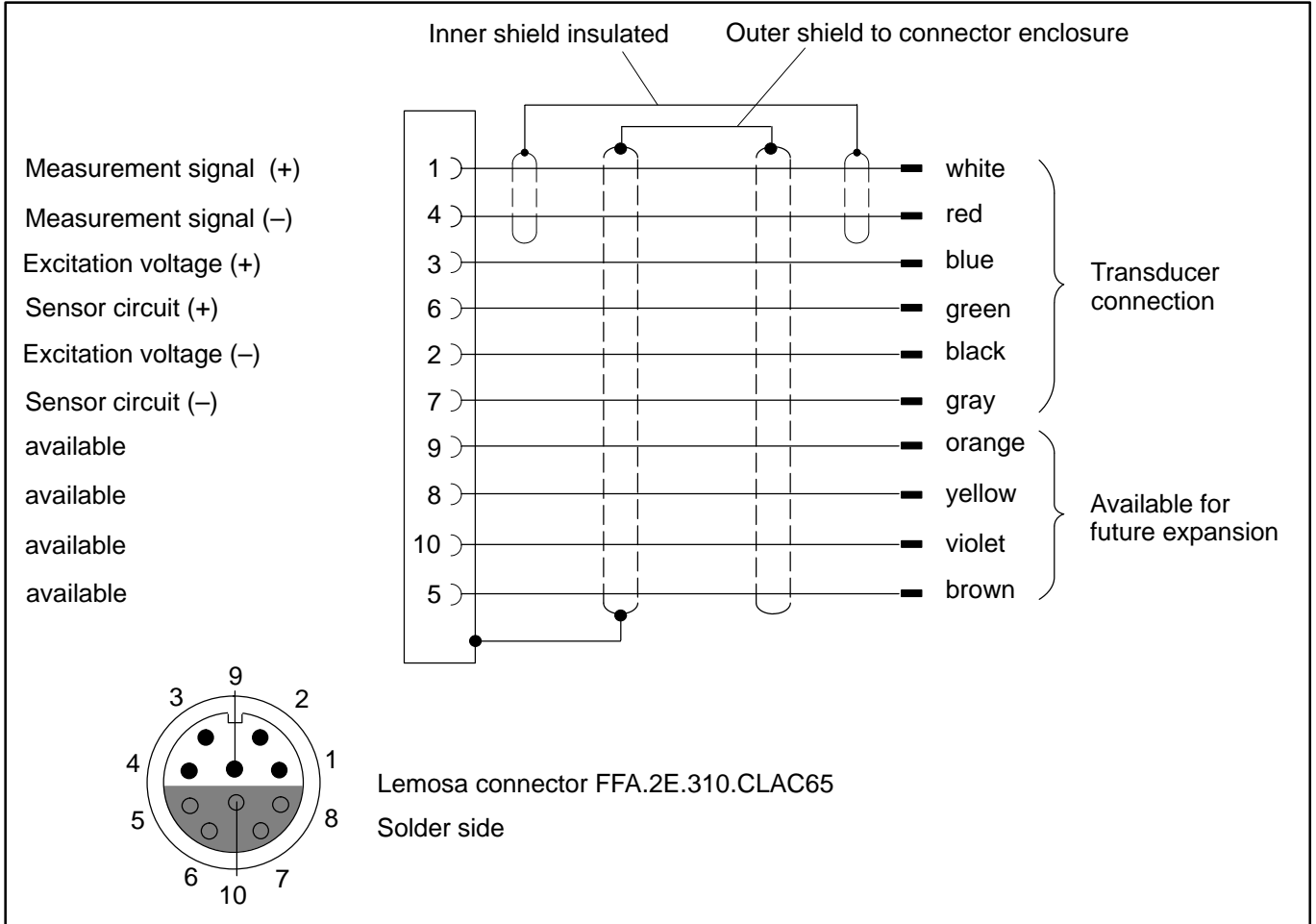
¹⁾ available in 4rd quarter of 2003

Inexpensive standard versions available from stock:

Measuring range, 0 bar...	Pressure type	Ordering details
5000 bar	Absolute pressure	1-P3MBP/5000 BAR
10000 bar	Absolute pressure	1-P3MBP/10000 BAR
15000 bar	Absolute pressure	1-P3MBP/15000 BAR ¹⁾

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Pin assignment



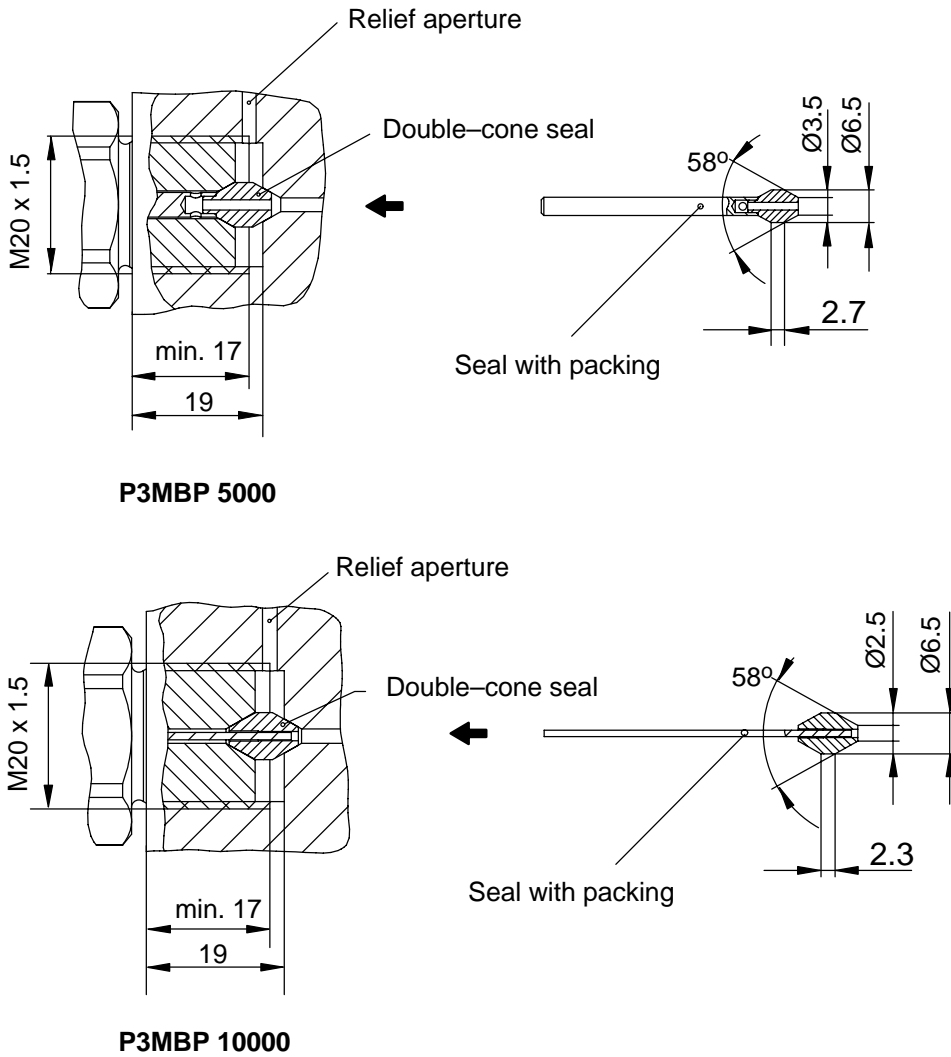
Accessories:

List of components supplied:

- 1 double-cone seal for 5000 bar:
- 1 double-cone seal for 10000 bar:
- 1 connection cable

- Order no.: 2-9289.5512, material 1.4305
- Order no.: 2-9289.5515, material 1.4305
- Order no.: 2-9268.0835, length 7m, pigtails,
PUR cable jacket, resistant to oil, grease and solvents

Installing the pressure transducer



Modifications reserved.
 All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.

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