

## OEM pressure sensors for refrigeration technology Model P3308

Standard output: 4...20 mA; 2-wire system  
or 0...10 VDC; 3-wire system  
or 0,5...4,5 VDC; 3-wire system



### Description

Robustness and long-term stability during operation are the strengths of this compact pressure sensor for refrigeration technology. The technical specifications and attractive price level of these sensors make them ideal for OEM applications.

High chemical resistance against usual refrigerants as well as condensation tightness under hardest operating conditions characterises this compact pressure sensors. Welded connections between pressure cell and process connection require no sealing elements and make the measuring system particularly resistant to mechanical shock and vibration. The compact design makes these sensors interesting for space critical applications.

With a wide variety of electrical and mechanical process connections the pressure sensor provides the optimal solution to different applications in the refrigeration technology.

A protection rate IP69K can be achieved with moulded cable connection.

The pressure sensor complies with electromagnetic compatibility requirements (EMC) as per EN 61326.

### Features

- Wetted parts of stainless steel
- High alternating load resistance
- High chemical resistance
- Condensation tightness
- No internal sealing elements
- For dynamic and static load measurements
- Customised pin configuration possible
- RoHS-conform

### Measuring ranges

Gauge pressure 0...6 bar bis 0...60 bar

### Applications

Compressors,  
coagulant  
Condensor,  
chillers

**Model: P3308**

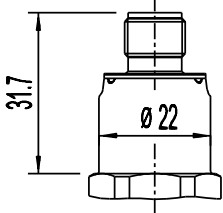
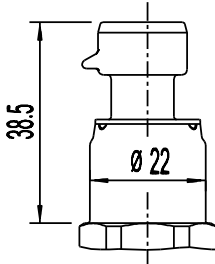
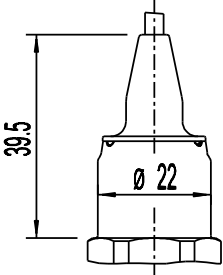
## Technical data

Model	P3308	
Pressure type	positive or negative gauge pressure	
- measuring ranges [bar]	0...6 bar to 0...60 bar -1..7 bar -1..9 bar 0..30 bar other measuring ranges on request	
- overrange limit [bar]	≤ 40 bar 2 x ; >40 bar 1,6 x	
- burst pressure [bar]	6 x	
Sensor element	thin film	
Ausgangssignal	4...20 mA                    2-wire system 0...10 VDC                 3-wire system 0,5...4,5 VDC ratio.     3-wire system	
Non-linearity Accuracy Stability annual	≤ ± 1% BFSL according to IEC 61298-2 ≤ ± 2% of F. S <sup>1)</sup> ≤ 0,3 (at reference condition)	
Material case medium wetted parts	Stainless steel Stainless steel Highly resistive, fibreglass- enforced plastic ( PBT GF 30 )	
Pressure connection	7/16-20 UNF-2A 7/16-20 UNF Schrader female screw thread G1/4 B acc. to EN 837 1/4 NPT 1/8 NPT	
Electrical connection	Circular connection M12x1 (4-pin) (IP 67) Connector Metri Pack Serie 150 flying lead 1m other electrical connection on request	
Power supply / load 4...20 mA 0...10 V 0,5...4,5 V ratiometric	Power supply 7...30 VDC 14...30 VDC 5 ± 0,5V	Maximum load R <sub>A</sub> R <sub>A</sub> ≤ (U <sub>B</sub> - 7V) / 0,02 A R <sub>A</sub> > 10 kOhm R <sub>A</sub> > 4,5 kOhm
Reponse time	≤ 5ms inside of 10% bis 90% of range	
RoHS-conformance	yes	
CE-conformity	2004/108/EG transient emissions (Group 1, Class B ) and immunity according to EN61326 Emission	
Electrical protections Short-circuit protection Reverse polarity protection Overvoltage protection	Sig+ towards 0V U <sub>B+</sub> towards 0V 36 VDC	
Temperature influence Zero point Span	typ. ≤ 0,5% / 10K ≤ 0,3% / 10K	
Temperatures of Compensated temperature range Storage Medium Ambience	-25..80°C -25..80°C -40..80°C -25..80°C	
Wight	ca. 0,08	

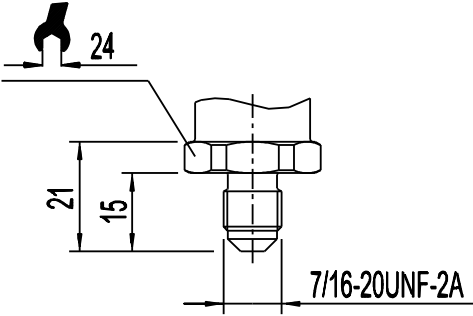
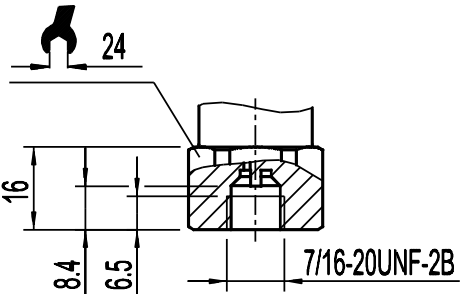
- 1) Including non-linearity, hysteresis, zero point and full scale error  
(corresponds to error of measurement according to IEC 61298-2)

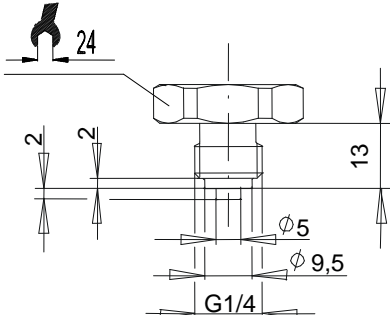
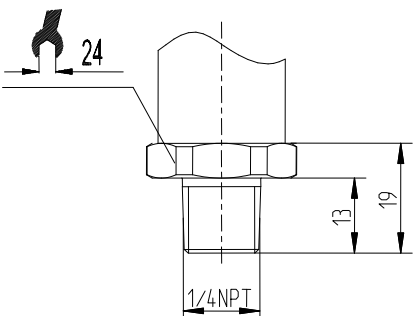
## Dimensions (mm)

### Case

Circular connector M12x1	Connector Metri Pack Serie 150	Moulded cable connection with flying lead
		

### Pressure connections

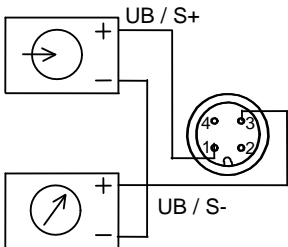
7/16-20UNF-2A	7/16-20UNF-2B Schrader inside
	

G 1/4 B	1/4 NPT
	

## Electrical connections

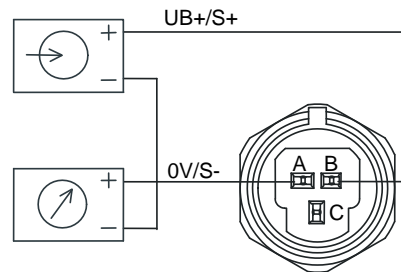
### 2- wire systems

Circular connector M12x1

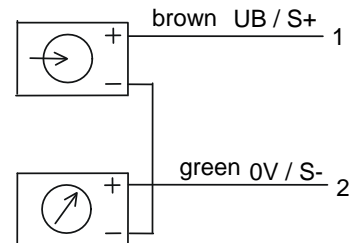


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Connector Metri Pack 150

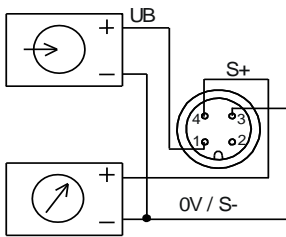


Moulded cable connection with flying lead

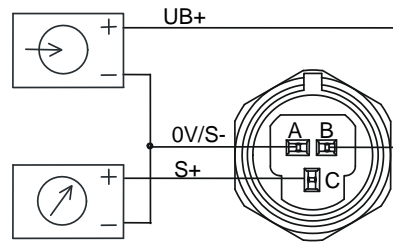


### 3- wire systems

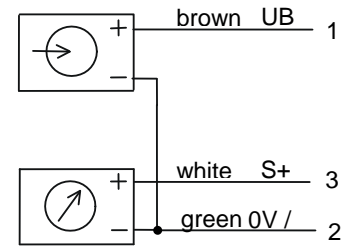
Circular connector M12x1



Connector Metri Pack 150



Moulded cable connection with flying lead



### Connection table for connector or moulded cable connection with flying leads

	4...20 mA (2-wire system)			0...10VDC (3-wire system)		
	Conector M12x1	connector Metri	Flying lead	connector M12x1	connector Metri	Flying lead
Supply: UB+	1	B	brown	1	B	brown
Supply: 0V	3	A	green	3	A	green
Signal: S+		-	-	4	C	white
Signal: S-		-	-	3	A	green

### Ordering informations

1. Model
2. Measuring range
3. Signal output
4. Options

Modifications reserved