

Typical Applications

Compressors
Hydraulic Systems
Agricultural Equipment
Construction Equipment
Heat Pumps
Wind Energy
HVAC Systems
Chemical Industry



Description

The PTE5000 utilizes Kavlico's thin film strain gauge sensing technology, incorporating a hermetically sealed design with no internal sealing required. Designed for harsh environments, a rugged 304 stainless steel housing surrounds the PTE5000 transducer.

The PTE5000's small, compact design as well as low overall weight is ideal for applications with spacing and weight limitations. This easy-to-use sensor is media resistant, allowing for a broad range of liquid and gaseous media compatibility. It can be used at high operating temperatures and has internal temperature compensation. Highly reliable, the PTE5000 provides accurate, high pressure measurements every time.

Specifically designed for industrial applications, the PTE5000 can be customized to fit your application-specific needs. So contact us to place your custom order now.

Standard Full Scale Pressure Ranges

0 - 6, 0 - 10, 0 - 16, 0 - 25, 0 - 40, 0 - 60, 0 - 100, 0 - 160, 0 - 250, 0 - 400, and 0 - 600 Bar

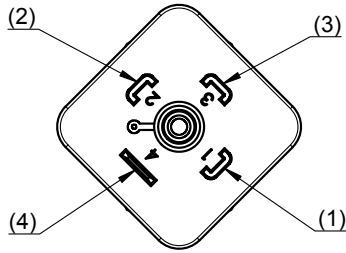
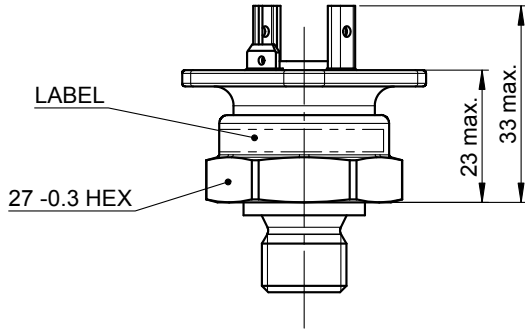
Features

- Hermetically Sealed
- Rugged & Durable
- Compact & Light-weight
- Resistant to Chemical Attack
- Superior Long-Term Stability & Repeatability
- Outstanding Shock & Vibration Performance

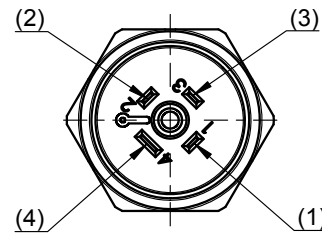
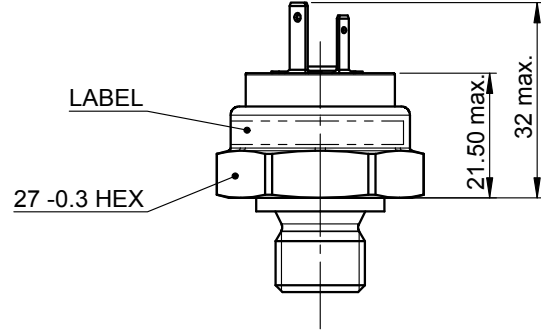
PTE5000 Hermetically Sealed Modular Pressure Sensor

Dimensions in: mm

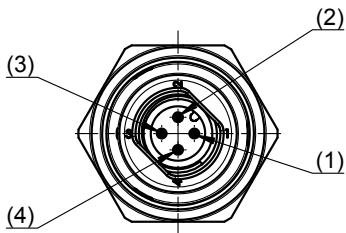
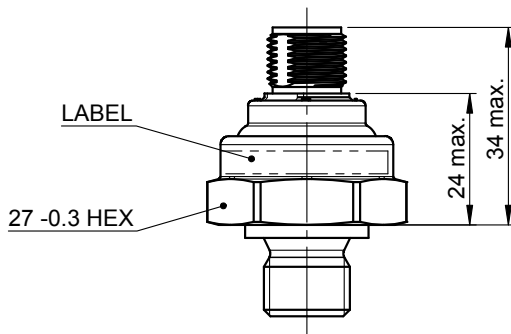
COMPATIBLE WITH
DIN 175301-803 A (18 mm)



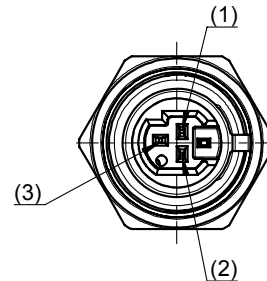
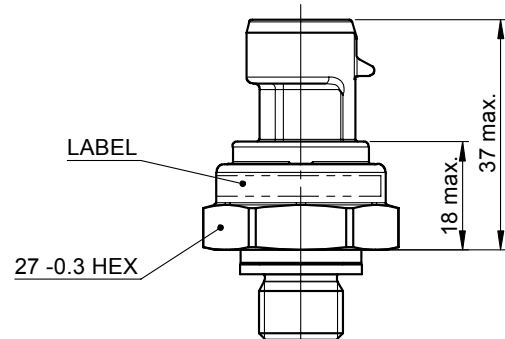
GDS 207 INDUSTRIAL STANDARD (9.4 mm)



M12 - 4 POLE



PACKARD (METRI-PACK 150)



PTE5000 Hermetically Sealed Modular Pressure Sensor

Technical Specifications

Pressure ranges from 0 to ...	bar (gage)	6	10	16	25	40	60	100	160	250	400	600	1000	1600	2500
Proof pressure	bar (gage)	20	20	32	50	80	120	200	320	375	600	900	*)		
Burst pressure	bar (gage)	30	30	48	75	120	180	300	400	500	800	1200	*)		
*) High pressure ranges on request only															
Electrical															
Output Signal	4 - 20 mA		0.5 - 4.5 VDC ratiometric				0 - 5 VDC		0 - 10 VDC						
Operating supply voltage	8 - 30 VDC		5 VDC ± 5 %				8 - 30 VDC		14 - 30 VDC						
Power consumption	≤ 600 mW		≤ 50 mW				≤ 600 mW		≤ 600 mW						
Load	$\leq \frac{V_{sup} - 8 \text{ VDC}}{0,02 \text{ A}} [\Omega]$		≥ 4.7 kΩ				≥ 4.7 kΩ		≥ 4.7 kΩ						
Overvoltage protection	min. 33 VDC		min. 6 VDC				min. 33 VDC		min. 33 VDC						
Short-circuit proofness	not applicable		Yes *)				Yes *)		Yes *)						
Reverse polarity protection	Yes *)		Yes *)				Yes *)		Yes *)						
*) for min. 3 intervals at 5 minutes each															
*) for min. 10 seconds on assigned pins															
PIN Assignment															
	Current Output				Voltage Output										
Connector	PIN 1	PIN 2	PIN 3	PIN 4	PIN 1	PIN 2	PIN 3	PIN 4							
18 mm	Vsup	Iout	...	...	Vsup	Vout	GND	...							
9.4 mm	Vsup	Iout	...	...	Vsup	Vout	GND	...							
M12 4-pole	Vsup	...	Iout	...	Vsup	...	Vout	GND							
Packard Metri-Pack 150	Iout	Vsup	...	...	GND	Vsup	Vout	...							
Response time	≤ 2 ms max. to 63 % of full scale pressure with step change on input														
Accuracy *)	≤ 0.5 % of span														
Non-linearity **)	0.1 % of span														
Non-repeatability	0.1 % of span														
1-year stability ***)	0.2 % of span														
*) Including non-linearity, hysteresis, non-repeatability, zero point and full scale error (corresponds to error of measurement per IEC 61298-2). Adjusted in vertical mounting position with pressure port down															
**) BFSL according to IEC 61298-2															
***) with reference conditions to EN 61298-1															
Temperatures															
Medium	-30 °C to +120 °C														
Environmental	-30 °C to +100 °C (depending on on electrical connector and external seal ring)														
Storage	-30 °C to +100 °C (depending on on electrical connector and external seal ring)														
Temperature coefficients															
TC zero	0.2 % of span / 10 K within temperature range 0 °C to +80 °C														
TC span	0.2 % of span / 10 K within temperature range 0 °C to +80 °C														
Conformity															
RoHS	according to 2002/95/EC RoHS Directive														
CE	Pressure equipment directive 97/23/EC EMC directive 2004/108/EEC, EN 61 326 Emission (Group 1, Class B) and Immunity (industrial locations)														
EMC Immunity	EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6														
Radiated Emission	CISPR 16-1 (Rem. 1), CISPR 16-2														
Vibration resistance	IEC 60068-2-64 (RANDOM) 20 PSD														
Shock resistance	25 g minimum according to EN 60068-2-27														
Electrical connector	M12 4-pole	18 mm compatible with DIN 175301-803A			9.4 mm GDS 207 ind. stand.		Packard Metri-Pack 150								
Ingress protection per IEC 60 529	IP67	IP65			IP65		IP67								
Weight	48 gram	51 gram			45 gram		47 gram								
(all versions weighed with G1/4" thread but without mating connector)															
Media															
All class II fluids and gases compatible with stainless steel 304 (1.4301)															
Customized versions on request - contact factory for details.															



