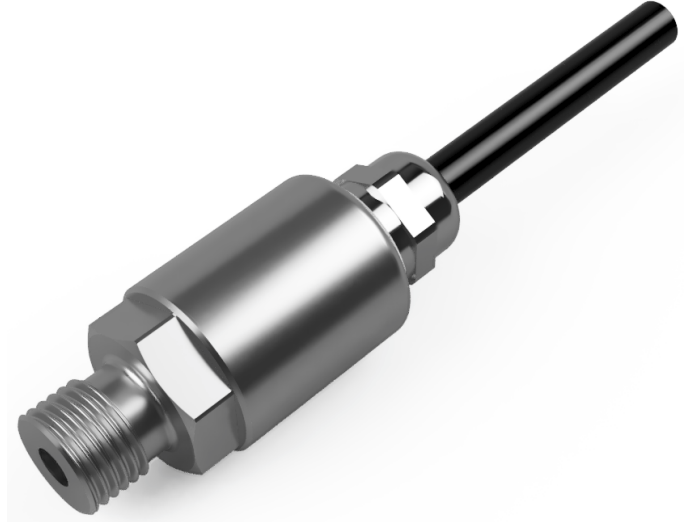


Titan Series

Model: TPTLRa

Low Range

Pressure Transmitter - Analogue



Description:

The Titan TPTLRa series of pressure transducers have been developed using a Stainless Steel piezo-resistive silicon sensing element housed in a robust stainless steel housing. It has the option of an integrated Cable outlet or an M12 x 1, 4-Pin connector both offering up to IP67* ingress protection and also standard connectors such as mini DIN & large DIN 43650 right angled connectors. We also have the option of an integrated MIL-C spec or customer specific connectors.

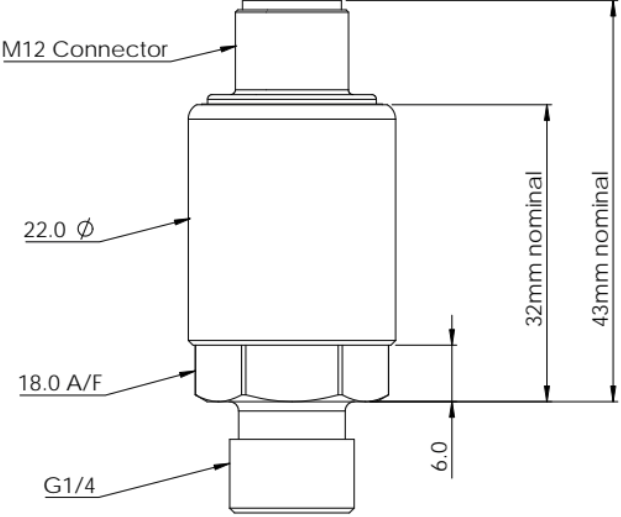
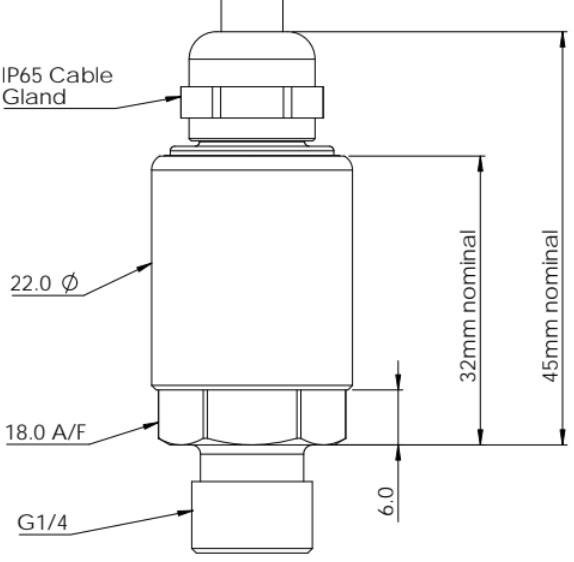
The internal PCB incorporates a versatile microprocessor enabling a range of outputs including 4-20mA, 0-5V, 1-5V, and 0-10V from a 10-32V dc supply. There is also the option of 0.5 to 4.5V (10-90% of supply) output from a 2.7 - 5.5V dc supply ratiometric output which is ideal for low battery powered data logging applications.

Product Highlights:	Applications include, but not limited to:
<ul style="list-style-type: none"> ● Pressure ranges from 50mbar up to 20 Bar ● Accuracy $<\pm 0.25\%$ / $<\pm 0.10\%$ ● Responsive stainless steel sensor ● Various analogue output versions ● High level of temperature compensation ● Choice of mechanical connections ● Cost effective for Industrial and OEM solutions 	<ul style="list-style-type: none"> ● OEM installations ● Laboratory & Research testing ● Pneumatic testing ● Medical testing / prototyping ● Data loggers ● Aerospace test and research ● Automotive component testing ● Academic research

Specification:

Titan Pressure Transducer - TPTLRa		
Sensor technology	Piezo-resistive, Silicon	
Output Versions	4-20mA (2-wire), 0-5V/1-5V/0-10V (3-wire), 0.5 to 4.5V (3-wire ratiometric)	
Supply voltage	4-20mA: 10 - 32V dc / 0-5V/1-5V/0-10V/: 13 - 32V dc / Ratiometric: 2.7 - 5.5V dc	
Pressure reference	Gauge (Others available on request)	
Pressure ranges	70, 200, 350, 700, 1000mbar 2, 3.5, 7, 10, 20 Bar	
Safe over pressure	1.5 times rated pressure	
Burst Pressure	3 times rated pressure	
Accuracy (NL&H)	$\leq \pm 0.25\%$ / $\leq \pm 0.10\%$ FS (dependant on range)	
Long Term Stability	$\leq \pm 0.10\%$ FS	
Response Time (ms)	<10ms	
Ambient temperature	-20 °C to +85 °C	
Media temperature	-40 °C to +125 °C	
Storage temperature	-20 °C to +80 °C	
Temperature effects	Typical thermal zero and span coefficients, TZS: $\pm 0.02\%$ FS/°C, TSS: $< -0.015\%$ /°C	
Media wetted parts	303 & 316 Stainless Steel, Viton	
Permissible media	All fluids compatible with media wetted parts	
Electrical connection	Mini DIN43650 Connector, M12 x 1, 4-pin connector, Cable Outlet with screened PVC cable (IP65), MIL-C spec connector	
Pressure connection	G $\frac{1}{4}$ " DIN 3852 male & female, $\frac{1}{4}$ " NPT male, 7/16-20 UNF-2A male SAE#4 J514	
Environmental Protection	M12 connector	Gauge reference ≤ 50 bar: IP65 Absolute, Sealed Gauge reference or > 50 bar range: IP67
	Cable Outlet	Screened PVC Cable: IP65
	MIL-C Spec	IP67

Dimensional Drawings:

M12 Connector	Cable Outlet
 <p>M12 Connector</p> <p>22.0 ϕ</p> <p>18.0 A/F</p> <p>G1/4</p> <p>6.0</p> <p>32mm nominal</p> <p>43mm nominal</p>	 <p>IP65 Cable Gland</p> <p>22.0 ϕ</p> <p>18.0 A/F</p> <p>G1/4</p> <p>6.0</p> <p>32mm nominal</p> <p>45mm nominal</p>
<p>Moulded</p>	<p>Mini DIN 43650</p>
<p>MIL-C Spec Connector</p>	

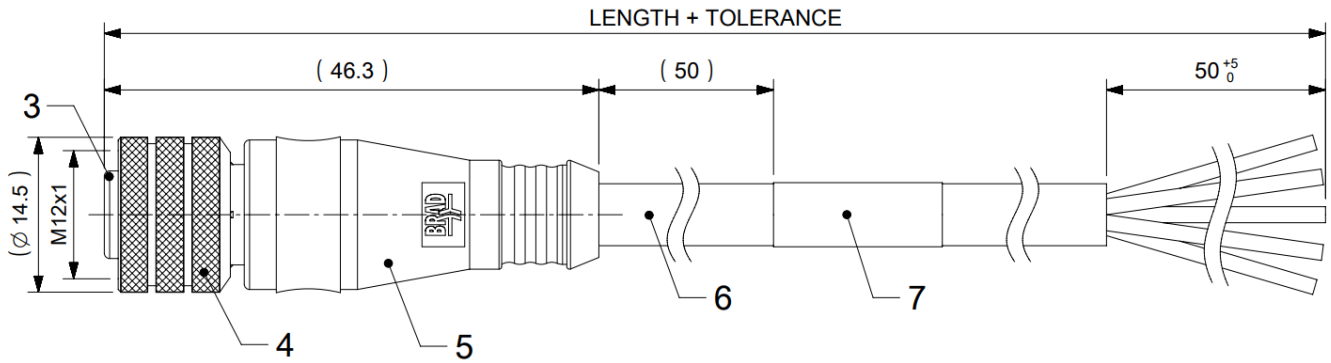


Part Numbering system

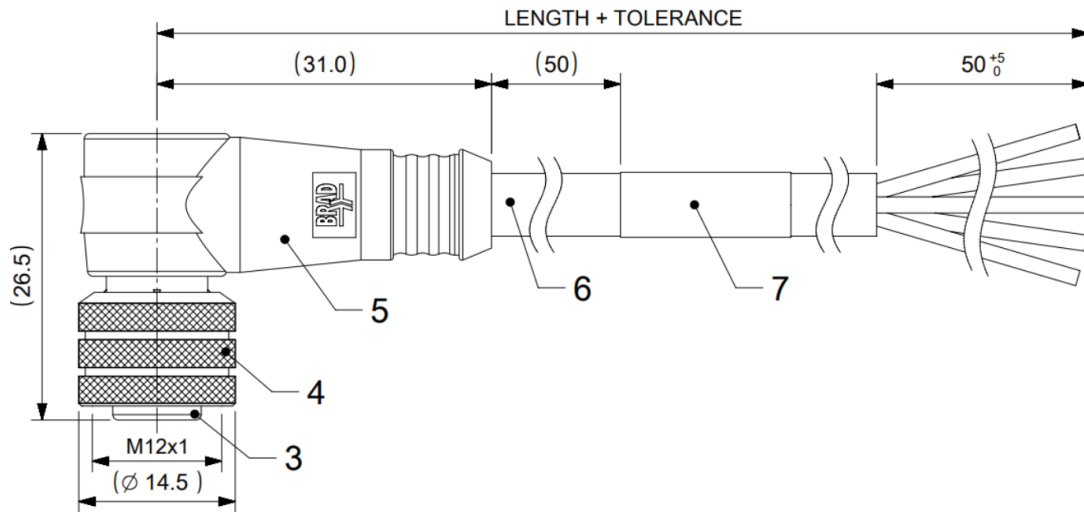
TPTLRa - Titan Low Range Press																	
	X	X	-	X	X	-	X	X	-	X	X	X	X	X	-	X	X
Output Type																	
4-20mA (2-wire)	A																
0-5V (3-wire)	B																
1-5V (3-wire)	C																
0-10V (3-wire)	D																
0.5 to 4.5V (3-wire)	E																
Accuracy Class																	
0.25%	A																
0.10%	B																
Electrical Connection																	
Connector M12 x 1, 4-pin male				A													
Cable Outlet IP65				B													
Mini Plug & Socket DIN 43650				D													
MIL-C Spec connector				E													
Process Connection																	
G1/4" male DIN 3852					G												
G1/4" female DIN 3852					F												
1/4" NPT male					N												
7/16-20 UNF-2A male SAE#4 J514					U												
Housing Material																	
303 Stainless Steel						A											
316 Stainless Steel						B											
Seal Material																	
Viton							V										
(Drinking Water Approved) EPDM							E										
NBR							N										
Pressure Range																	
50mbar								0	0	5	0						
200mbar								0	2	0	0						
350mbar								0	3	5	0						
700mbar								0	7	0	0						
1000mbar								1	0	0	0						
2 Bar								2	0	0	0						
3.5 Bar								3	0	0	0						
7 Bar								7	0	0	0						
10 Bar								1	0	0	1						
20 Bar								2	0	0	1						
5 Psi (example)								P	0	0	5						
10 Psi (example)								P	0	1	0						
Pressure Datum																	
Gauge															G		
Special Options																	
None																0	0

Accessories:

Mating M12 cable cordset - Straight



Mating M12 cable cordset - Right-Angled



Temperature Reducing Adaptor

