

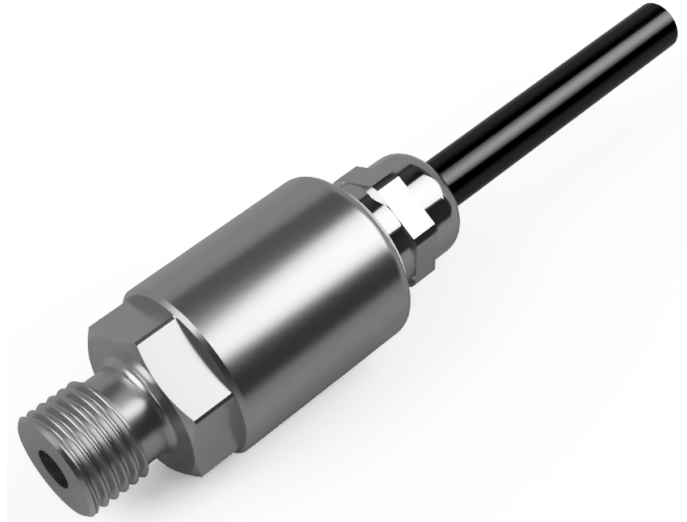
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Titan Series

Model: TPTLRa

Low Range

Pressure Transmitter - Analogue

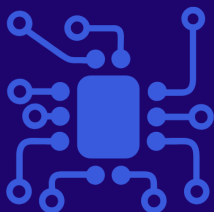


Description:

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.

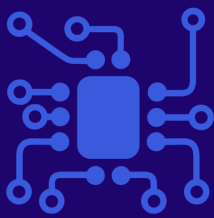
Product Highlights:	Applications include, but not limited to:
<ul style="list-style-type: none">• Pressure ranges from 50mbar up to 20 Bar• Accuracy $<\pm 0.25\%$ / $<\pm 0.10\%$• Responsive stainless steel sensor• Various analogue output versions• High level of temperature compensation• Choice of mechanical 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



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Specification:

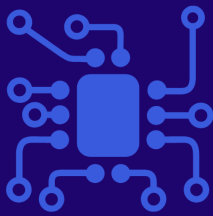
Titan Pressure Transducer - TPTLRa			
Sensor technology	Piezo-resistive, Silicon		
Output Versions	4-20mA (2-wire), 0-5V/1-5V/0-10V (3-wire), 0.5 to 4.5V (3-wire ratiometric)		
Supply voltage	4-20mA: 10 - 32V dc / 0-5V/1-5V/0-10V: 13 - 32V dc / Ratiometric: 2.7 - 5.5V dc		
Pressure reference	Gauge (Others 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	



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Dimensional Drawings:

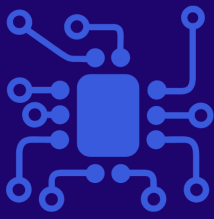
M12 Connector	Cable Outlet
<p>M12 Connector</p> <p>22.0 ϕ</p> <p>18.0 A/F</p> <p>G1/4</p> <p>32mm nominal</p> <p>43mm nominal</p> <p>6.0</p>	<p>IP65 Cable Gland</p> <p>22.0 ϕ</p> <p>18.0 A/F</p> <p>G1/4</p> <p>32mm nominal</p> <p>45mm nominal</p> <p>6.0</p>
Moulded	Mini DIN 43650
MIL-C Spec Connector	



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Part Numbering system

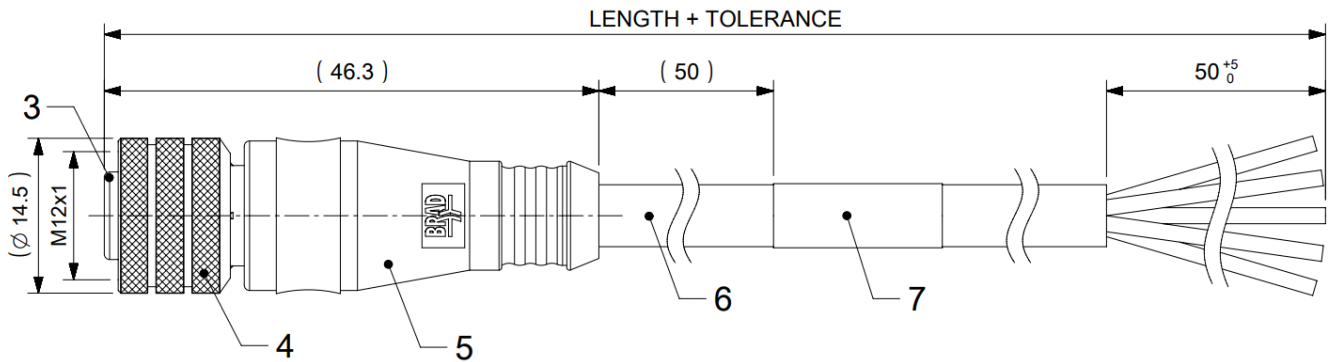
TPTLRa - Titan Low Range Pressl														
TPTLRa - X	X	-	X	X	-	X	X	-	X	X	X	X	X	X
Output Type														
4-20mA (2-wire)	A													
0-5V (3-wire)	B													
1-5V (3-wire)	C													
0-10V (3-wire)	D													
0.5 to 4.5V (3-wire)	E													
Accuracy Class														
0.25%	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



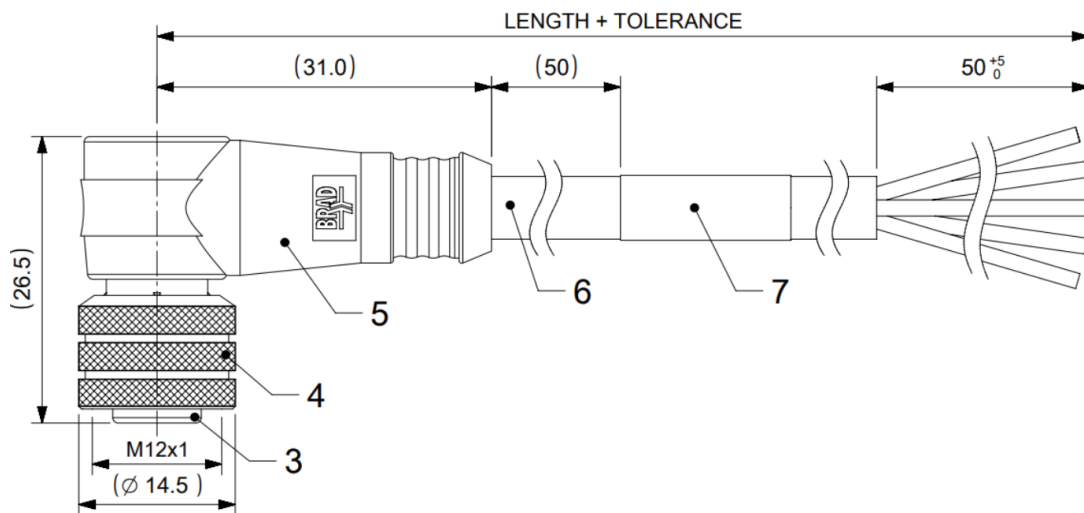
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Accessories:

Mating M12 cable cordset - Straight



Mating M12 cable cordset - Right-Angled



Temperature Reducing Adaptor

