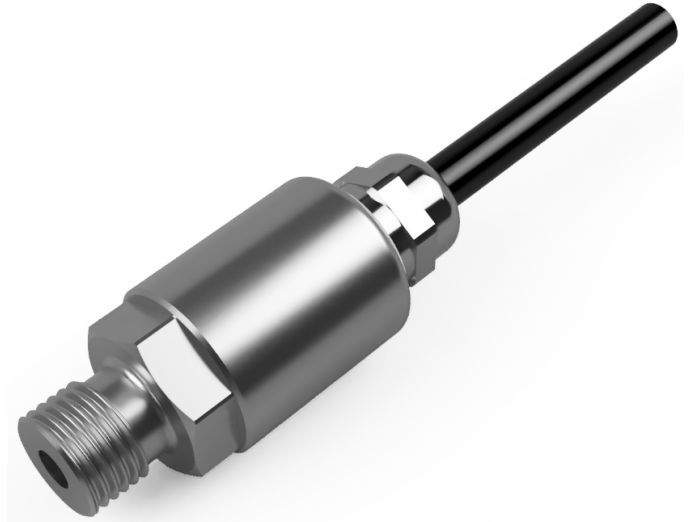


Titan Series

Model: TPTa

Analogue Pressure Transmitter



Description:

The Titan TPT series of pressure transducers have been developed using a Ceramic (96% Aluminium Oxide Al_2O_3) piezo-resistive 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.

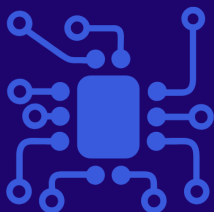
The internal PCB incorporates a versatile microprocessor enabling a range of outputs including 4-20mA, 0-5V, 1-5V, and 0-10V from a 10-32V dc supply. There is also the option of 0.5 to 4.5V (10-90% of supply) output from a 2.7 - 5.5V dc supply ratiometric output which is ideal for low battery powered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

Product Highlights:

- Pressure ranges from 0.5 up to 600 bar
- Accuracy $<\pm 0.35\%$ / $<\pm 0.25\%$ / $<\pm 0.10\%$
- Ceramic sensor, high corrosion resistance
- Various analogue output versions
- High level of temperature compensation
- Choice of mechanical connections
- Cost effective for Industrial and OEM solutions

Applications include, but not limited to:

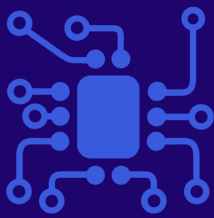
- OEM installations
- Laboratory & Research testing
- Hydraulic & Pneumatic testing
- Medical testing / prototyping
- Pressure surge detection
- Data loggers
- Aerospace test and research
- Automotive component testing
- Academic research



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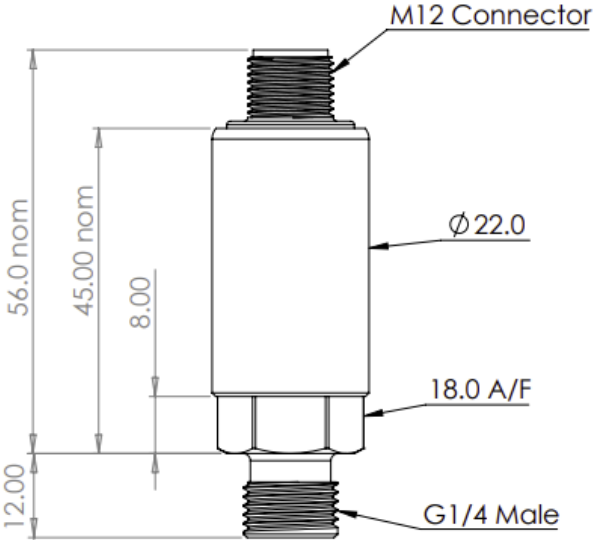
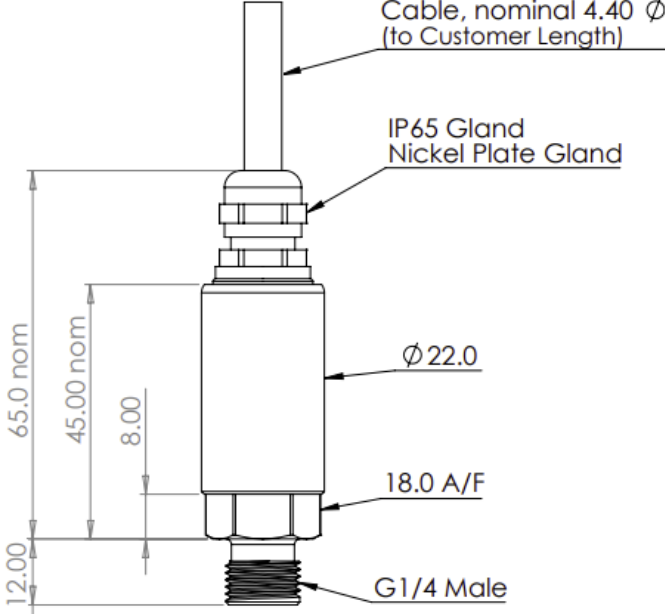
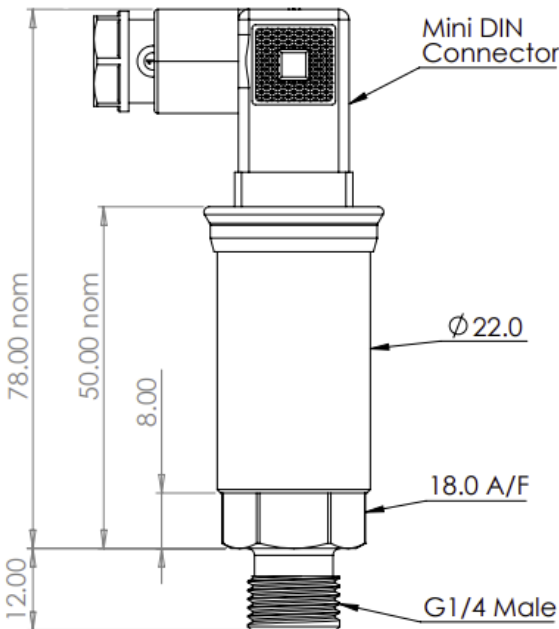
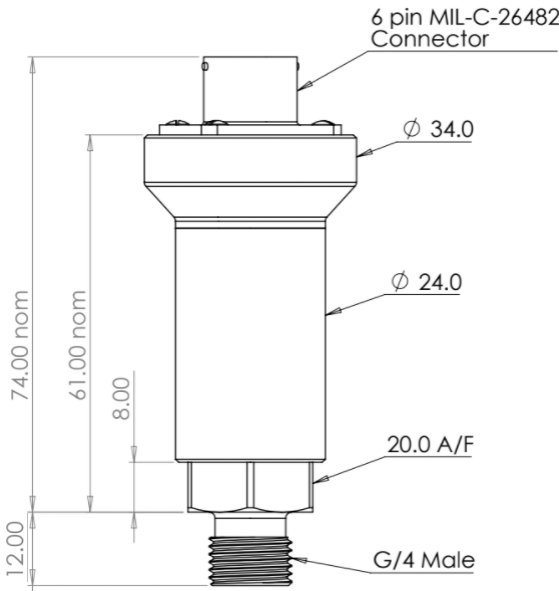
Specification:

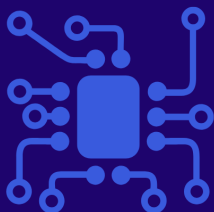
Titan Pressure Transmitter - TPTa			
Sensor technology	Piezo-resistive		
Output Versions	4-20mA (2-wire), 0-5V/1-5V/0-10V (3-wire), 0.5 to 4.5V (3-wire ratiometric)		
Supply voltage	4-20mA: 10 - 32V dc / 0-5V/1-5V/0-10V: 13 - 32V dc / Ratiometric: 2.7 - 5.5V dc		
Pressure reference	Gauge (standard), Sealed Gauge, Absolute		
Pressure ranges	0.5, 1, 2, 5, 10, 20, 50, 100, 200, 400, 600 Bar		
Safe over pressure	1.5 times rated pressure		
Burst Pressure	3 times rated pressure		
Accuracy NL&H (BFSL)	$\leq \pm 0.35\%$ / $\leq \pm 0.25\%$ / $\leq \pm 0.10\%$ FS		
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		
Setting Errors	Zero & Span setting tolerance: 4-20mA & 0.5 to 4.5V: $< \pm 0.5\%$ / Span 0-5V (Actual calibration is 0.05 to 5.05V): $< \pm 0.5\%$ / Span 1-5V (Actual calibration is 1.05 to 5.05V): $< \pm 0.5\%$ / Span 0-10V (Actual calibration is 0.1 to 10.1V): $< \pm 0.5\%$ / Span		
Media wetted parts	303 Stainless Steel, Al ₂ O ₃ , 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), Moulded Cable Outlet with PUR cable (IP67), 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, Moulded PUR Cable: IP67	
	MIL-C Spec	IP67	



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Dimensional Drawings:

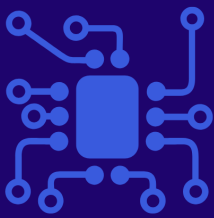
M12 Connector	Cable Outlet
 <p>M12 Connector</p> <p>56.00 nom</p> <p>45.00 nom</p> <p>8.00</p> <p>Ø 22.0</p> <p>18.0 A/F</p> <p>G1/4 Male</p> <p>12.00</p>	 <p>Cable, nominal 4.40 Ø (to Customer Length)</p> <p>IP65 Gland Nickel Plate Gland</p> <p>65.00 nom</p> <p>45.00 nom</p> <p>8.00</p> <p>Ø 22.0</p> <p>18.0 A/F</p> <p>G1/4 Male</p> <p>12.00</p>
Mini Din 43650 Plug & Socket	MIL-C Spec Connector
 <p>Mini DIN Connector</p> <p>78.00 nom</p> <p>50.00 nom</p> <p>8.00</p> <p>Ø 22.0</p> <p>18.0 A/F</p> <p>G1/4 Male</p> <p>12.00</p>	 <p>6 pin MIL-C-26482 Connector</p> <p>74.00 nom</p> <p>61.00 nom</p> <p>8.00</p> <p>Ø 24.0</p> <p>20.0 A/F</p> <p>G/4 Male</p> <p>12.00</p>



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Part Numbering system

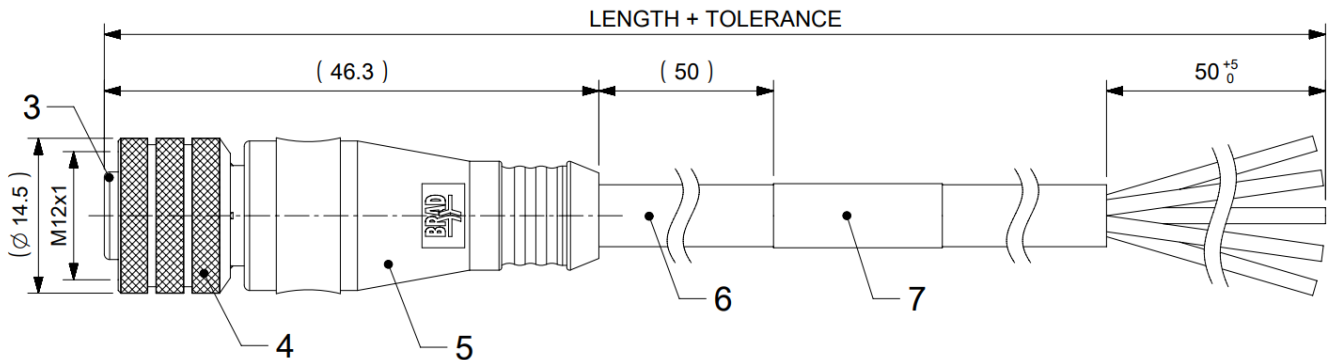
TPTa - Titan Pressure Transmitter														
TPTa	-	X	X	-	X	X	-	X	X	-	X	X	X	X
Output Type														
4-20mA (2-wire)		A												
0-5V (3-wire)		B												
1-5V (3-wire)		C												
0-10V (3-wire)		D												
0.5 to 4.5V (3-wire)		E												
Accuracy Class														
0.35%		A												
0.25%		B												
0.10%		C												
Electrical Connection														
Connector M12 x 1, 4-pin male					A									
Cable Outlet IP66					B									
Moulded Cable IP67					C									
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								
PVDF						C								
Seal Material														
Viton							V							
(Drinking Water Approved) EPDM							E							
NBR							N							
FFKM (Chemraz)							C							
Pressure Range														
0.5 Bar								0	5	0	0			
1 Bar								1	0	0	0			
2 Bar								2	0	0	0			
5 Bar								5	0	0	0			
10 Bar								1	0	0	1			
20 Bar								2	0	0	1			
50 Bar								5	0	0	1			
100 Bar								1	0	0	2			
200 Bar								2	0	0	2			
400 Bar								4	0	0	2			
600 Bar								6	0	0	2			
72 Psi (example)								P	0	7	2			
5000 Psi (example)								P	5	K	0			
Pressure Datum														
Gauge												G		
Sealed Gauge												S		
Absolute												A		
Special Options														
None													0	0



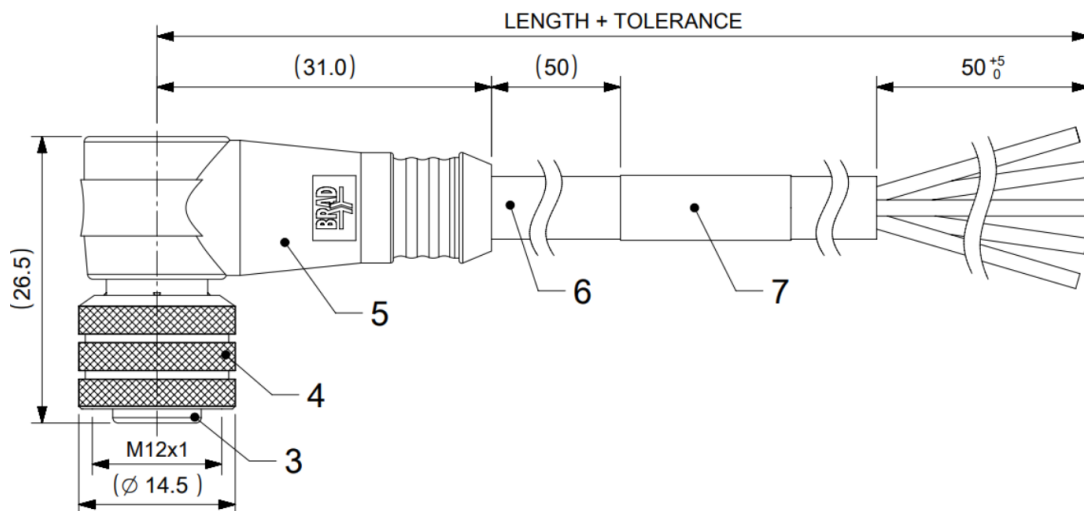
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Accessories:

Mating M12 cable cordset - Straight



Mating M12 cable cordset - Right-Angled



Temperature Reducing Adaptor

