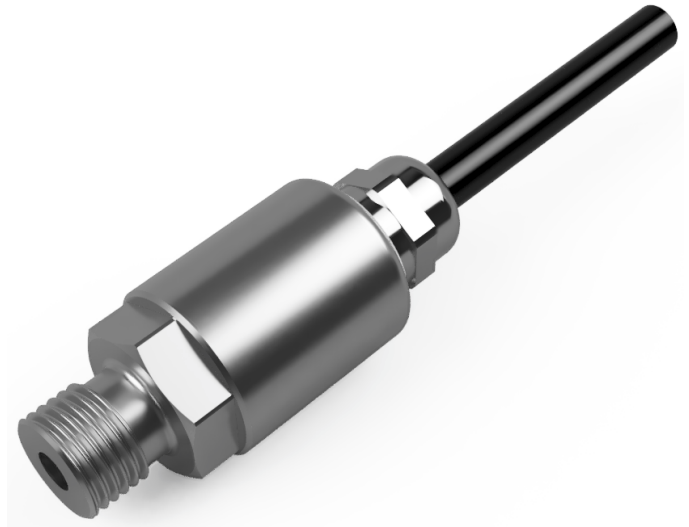


Titan Series

Model: TPTa

Analogue Pressure Transmitter



Description:

The Titan TPT series of pressure transducers have been developed using a Ceramic (96% Aluminium Oxide Al₂O₃) 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.

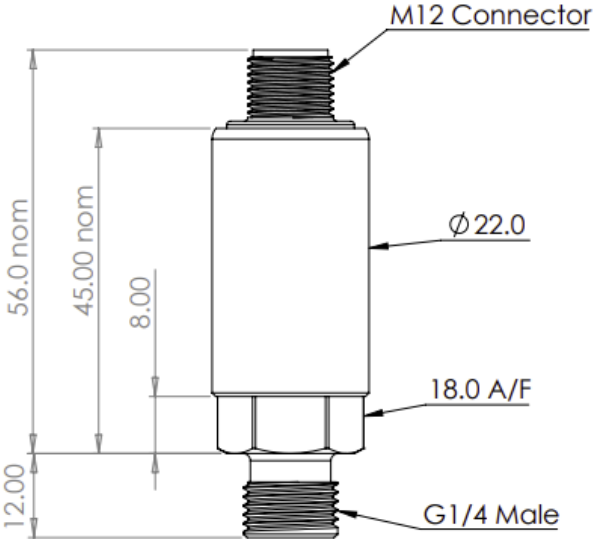
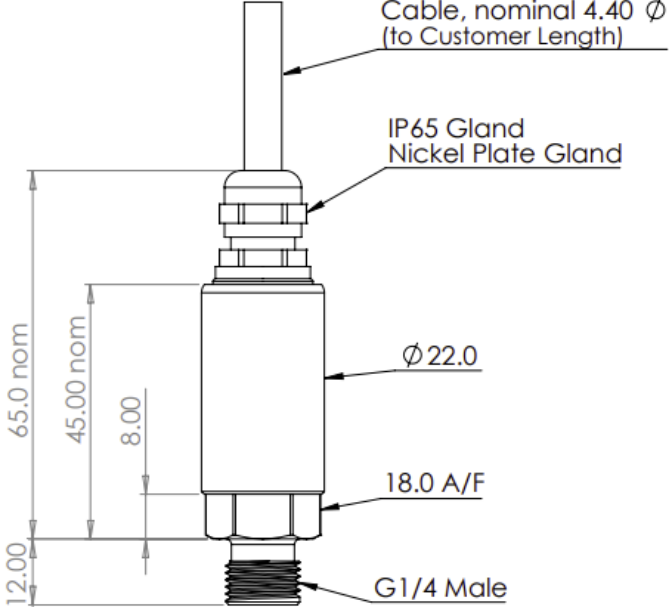
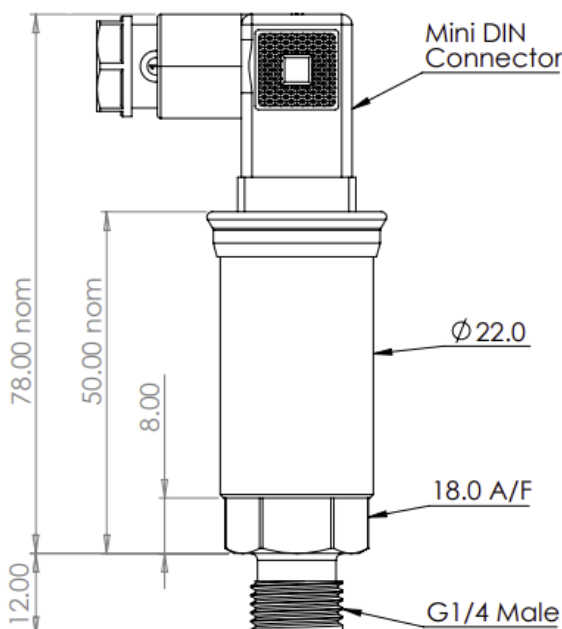
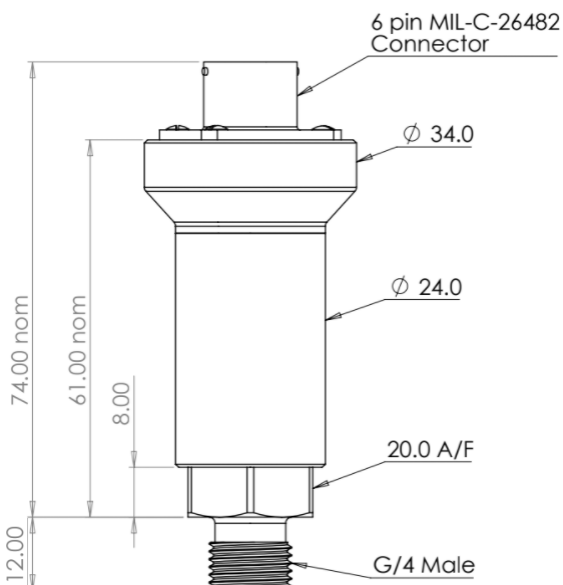
The internal PCB incorporates a versatile microprocessor enabling a range of outputs including 4-20mA, 0-5V, 1-5V, and 0-10V from a 10-32V dc supply. There is also the option of 0.5 to 4.5V (10-90% of supply) output from a 2.7 - 5.5V dc supply ratiometric output which is ideal for low battery powered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

Product Highlights:	Applications include, but not limited to:
<ul style="list-style-type: none"> ● Pressure ranges from 0.5 up to 600 bar ● Accuracy <math>\lt; \pm 0.5\% / < \pm 0.25\% / < \pm 0.10\%</math> ● 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 	<ul style="list-style-type: none"> ● 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

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 ¹ / ₄ " DIN 3852 male & female, 1/4" NPT male, 7/16-20 UNF-2A male SAE#4 J514	
Environmental Protection	M12 connector	Gauge reference \leq 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

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>$\phi 22.0$</p> <p>18.0 A/F</p> <p>12.00</p> <p>G1/4 Male</p>	 <p>Cable, nominal 4.40 ϕ (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>$\phi 22.0$</p> <p>18.0 A/F</p> <p>12.00</p> <p>G1/4 Male</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>$\phi 22.0$</p> <p>18.0 A/F</p> <p>12.00</p> <p>G1/4 Male</p>	 <p>6 pin MIL-C-26482 Connector</p> <p>74.00 nom</p> <p>61.00 nom</p> <p>8.00</p> <p>$\phi 34.0$</p> <p>$\phi 24.0$</p> <p>20.0 A/F</p> <p>12.00</p> <p>G1/4 Male</p>

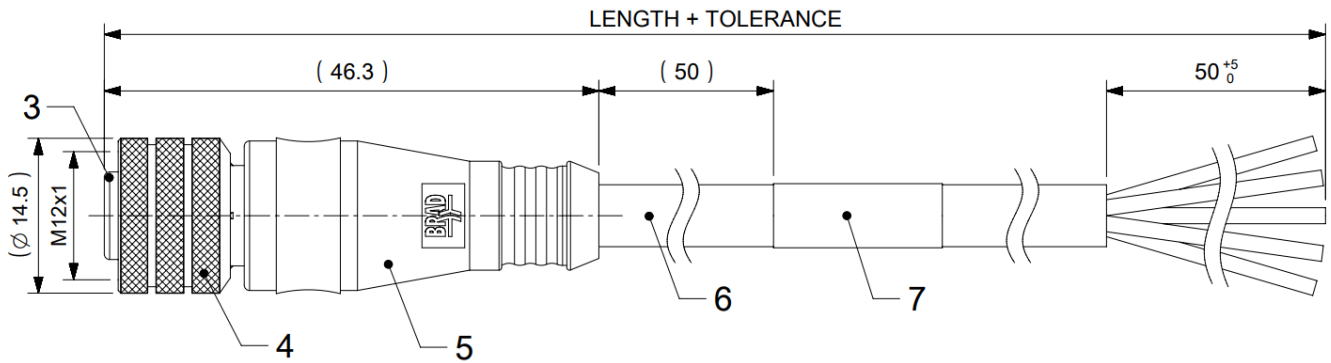


Part Numbering system

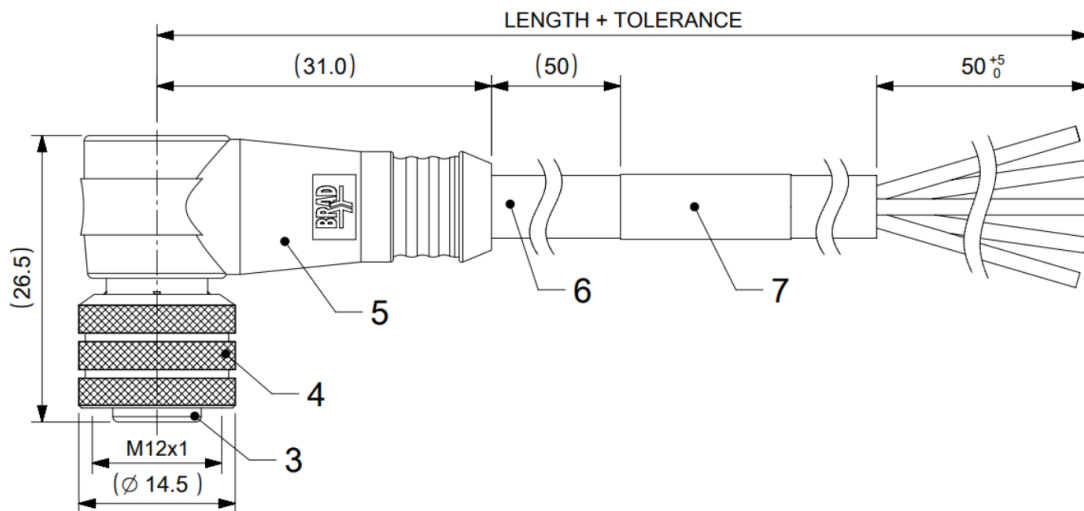
TPTa - Titan Pressure Transmitter	TPTa	-	X	X	-	X	X	-	X	X	-	X	X	X	X	X	X	X	X	X
Output Type																				
4-20mA (2-wire)	A																			
0-5V (3-wire)	B																			
1-5V (3-wire)	C																			
0-10V (3-wire)	D																			
0.5 to 4.5V (3-wire)	E																			
Accuracy Class																				
0.35%	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

Accessories:

Mating M12 cable cordset - Straight



Mating M12 cable cordset - Right-Angled



Temperature Reducing Adaptor

