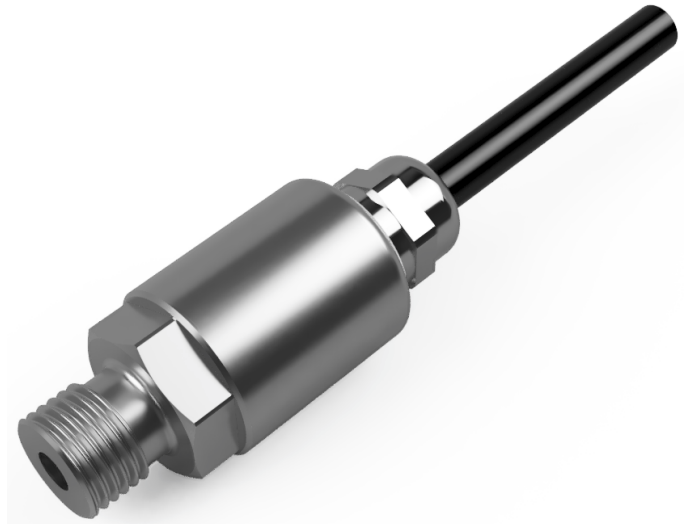


Titan Series

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 0.35\% / \lt; \pm 0.25\% / \lt; \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 $\frac{1}{4}$ " 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	

Dimensional Drawings:

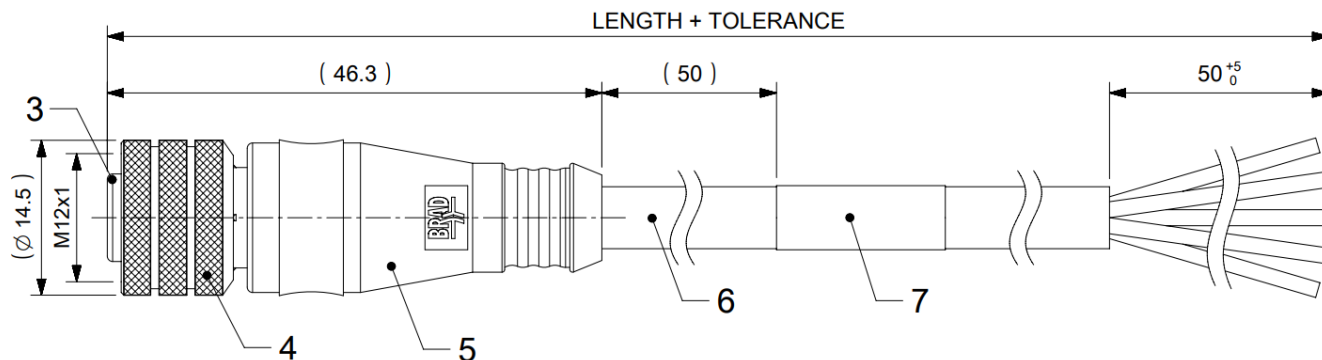
M12 Connector	Cable Outlet
<p>M12 Connector</p> <p>56.00 nom</p> <p>45.00 nom</p> <p>8.00</p> <p>Ø 22.0</p> <p>18.0 A/F</p> <p>G1/4 Male</p> <p>12.00</p>	<p>Cable, nominal 4.40 Ø (to Customer Length)</p> <p>IP65 Gland Nickel Plate Gland</p> <p>65.00 nom</p> <p>45.00 nom</p> <p>8.00</p> <p>Ø 22.0</p> <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>G1/4 Male</p> <p>12.00</p>

Part Numbering system

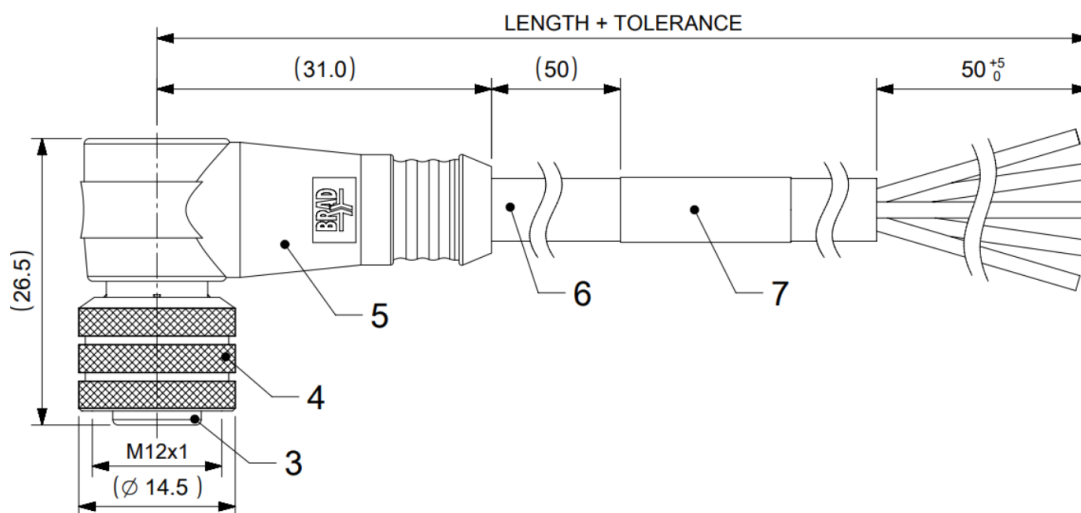
TPTa - Titan Pressure Transmitter		TPTa	-	X	X	-	X	X	-	X	X	-	X	X	X	X	-	X	X	
Output Type																				
	4-20mA (2-wire)			A																
	0-5V (3-wire)			B																
	1-5V (3-wire)			C																
	0-10V (3-wire)			D																
	0.5 to 4.5V (3-wire)			E																
Accuracy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

