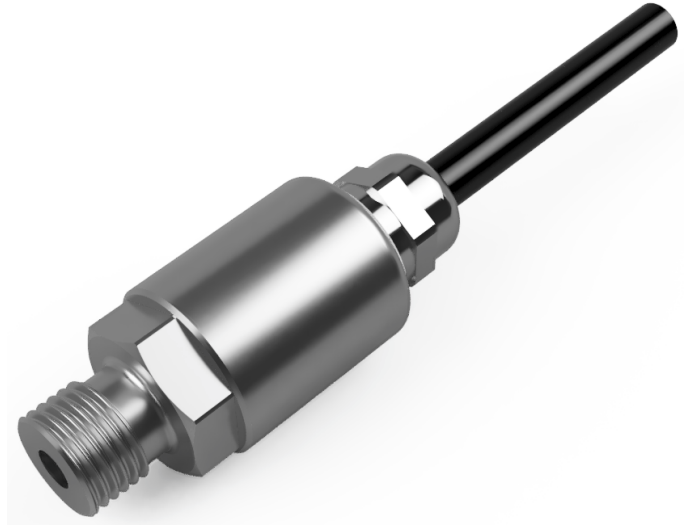


## Titan Series

### Model: TPTd

#### Digital Pressure Sensor



#### Description:

The Titan TPT series of pressure transducers have been developed using a Ceramic (96% Aluminium Oxide Al<sub>2</sub>O<sub>3</sub>) 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.

The internal PCB incorporates a versatile microprocessor enabling a range of digital communications including i2c and SPi from a 2.7 - 5.5V dc supply.

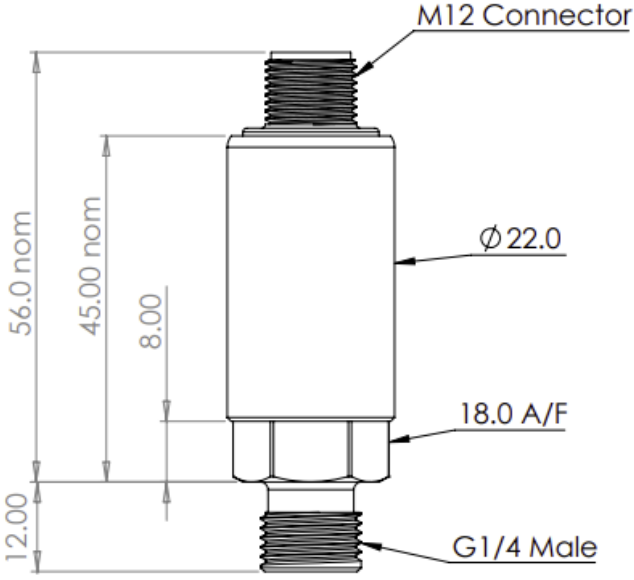
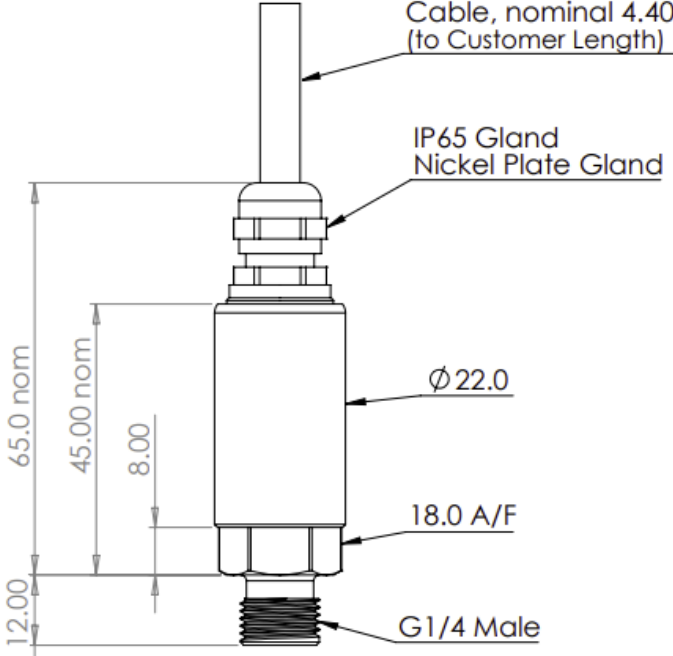


Product Highlights:	Applications include, but not limited to:
<ul style="list-style-type: none"> <li>● Pressure ranges from 0.5 up to 600 bar</li> <li>● Accuracy &lt;math&gt;\pm 0.25\%&lt;/math&gt; / &lt;math&gt;\pm 0.10\%&lt;/math&gt;</li> <li>● Ceramic sensor, high corrosion resistance</li> <li>● I2c and SPi supported</li> <li>● Low power consumption</li> <li>● Naturally high frequency response from 1kHz up to 75kHz</li> <li>● Choice of mechanical connections</li> <li>● Cost effective for OEM solutions</li> </ul>	<ul style="list-style-type: none"> <li>● OEM installations</li> <li>● Laboratory &amp; Research testing</li> <li>● Medical testing / prototyping</li> <li>● Pressure surge detection</li> <li>● Data loggers</li> <li>● Automotive component testing</li> <li>● Academic research</li> </ul>

Specification:

Titan Pressure Sensor - TPTd			
Sensor technology	Piezo-resistive		
Communications	I2c, SPi		
Supply voltage	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)	$\leq \pm 0.35\%$ / $\leq \pm 0.25\%$ / $\leq \pm 0.10\%$ FS		
Response Time	Various Options, Consult Sales		
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 Stainless Steel, Al <sub>2</sub> O <sub>3</sub> , Viton		
Permissible media	All fluids compatible with media wetted parts		
Electrical connection	M12 x 1, 4-pin male connector (mating cable sold separately) Cable Outlet with 0.25m screened PVC cable		
Pressure connection	G <sup>1</sup> / <sub>4</sub> " DIN 3852 male & female, <sup>1</sup> / <sub>4</sub> " NPT male, 7/16-20 UNF-2A male SAE#4 J514		
Environmental Protection	M12 connector	Gauge reference $\leq 50$ bar: <b>IP65</b>	Absolute, Sealed Gauge reference or $> 50$ bar range: <b>IP67</b>
	Cable Outlet	<b>IP65</b>	



## Dimensional Drawings:

M12 Connector	Cable Outlet
 <p>M12 Connector</p> <p>56.0 nom</p> <p>45.00 nom</p> <p>8.00</p> <p>12.00</p> <p>Ø 22.0</p> <p>18.0 A/F</p> <p>G1/4 Male</p>	 <p>Cable, nominal 4.40 (to Customer Length)</p> <p>IP65 Gland Nickel Plate Gland</p> <p>65.0 nom</p> <p>45.00 nom</p> <p>8.00</p> <p>12.00</p> <p>Ø 22.0</p> <p>18.0 A/F</p> <p>G1/4 Male</p>
	

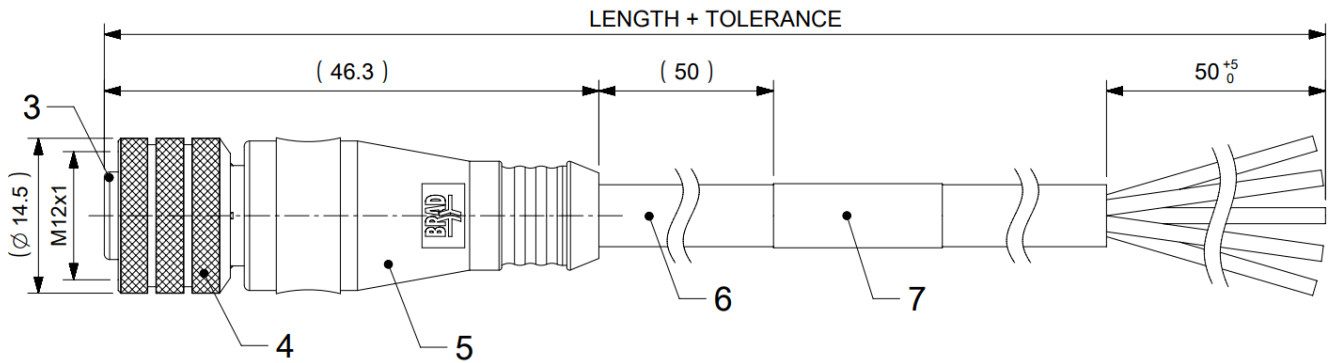


## Part Numbering system

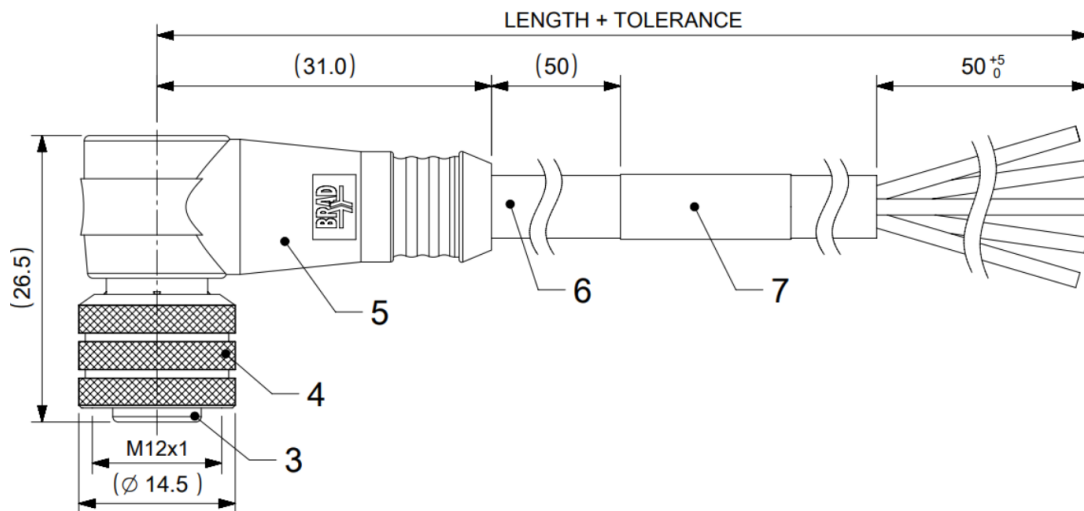
TPTd - Titan Pressure Transmitter	TPTd	-	X	X	-	X	X	-	X	X	-	X	X	X	X	X	X	-	X	X
<b>Output Type</b>																				
i2c	A																			
SPi	B																			
<b>Accuracy Class</b>																				
0.35%	A																			
0.25%	B																			
0.10%	C																			
<b>Electrical Connection</b>																				
Connector M12 x 1, 4-pin male	A																			
Cable Outlet IP65	B																			
<b>Process Connection</b>																				
G1/4" male DIN 3852																				
G1/4" female DIN 3852																				
1/4" NPT male																				
7/16-20 UNF-2A male SAE#4 J514																				
<b>Housing Material</b>																				
303 Stainless Steel																				
316 Stainless Steel																				
PVDF																				
<b>Seal Material</b>																				
Viton																				
(Drinking Water Approved) EPDM																				
NBR																				
FFKM (Chemraz)																				
<b>Pressure Range</b>																				
0.5 Bar																				
1 Bar																				
2 Bar																				
5 Bar																				
10 Bar																				
20 Bar																				
50 Bar																				
100 Bar																				
200 Bar																				
400 Bar																				
600 Bar																				
72 Psi (example)																				
5000 Psi (example)																				
<b>Pressure Datum</b>																				
Gauge																				
Sealed Gauge																				
Absolute																				
<b>Special Options</b>																				
None																				

Accessories:

**Mating M12 cable cordset - Straight**



**Mating M12 cable cordset - Right-Angled**



**Temperature Reducing Adaptor**

