

## Model: SSPT

### Subsea Pressure Transmitter



#### Description:

The SSPT Subsea pressure transmitter has been developed using a Ceramic (96% Aluminium Oxide  $\text{Al}_2\text{O}_3$ ) piezo-resistive sensing element housed in a robust housing capable of withstanding high external pressures. It has the option of a subsea wet-mateable connector in both 2, 3 or 4-pin configuration, depending on the output type required, both offering complete and permanent submersion up to 3000m depth. We can also install customer specified connectors from all the major manufacturers to ensure the sensors interface with your existing infrastructure.

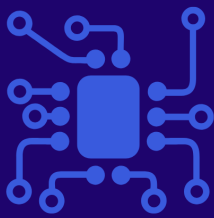
The standard version is made from high quality Duplex Stainless Steel with options of Marine Bronze and Titanium depending on the application requirements.

#### Product Highlights:

- Pressure ranges from 1 up to 400 bar
- Accuracy  $<\pm 0.25\%$  /  $<\pm 0.10\%$
- Ceramic sensor, high corrosion resistance
- Choice of wetted materials
- Wet-mateable electrical connectors with depth ratings to 4000m
- Choice of mechanical connections
- Outputs include mV/V, 4-20mA or Volts

#### Applications include, but not limited to:

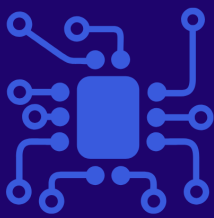
- Oil and gas drilling and exploration
- Deep sea remote or unmanned vehicles
- Subsea Hydraulic equipment
- Submarine installations
- Deep sea dredging suction pipes & pumps
- Subsea Pods



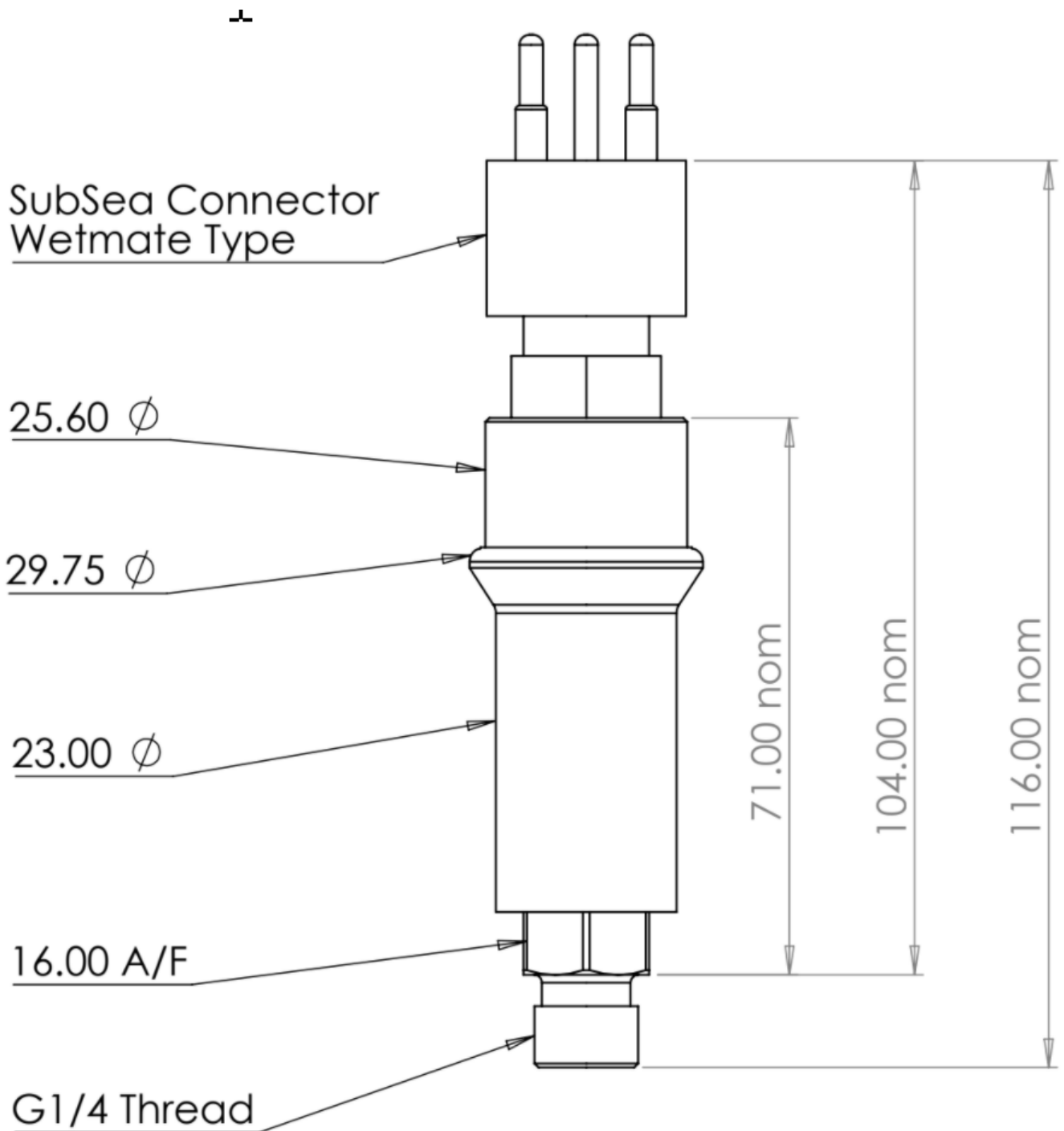
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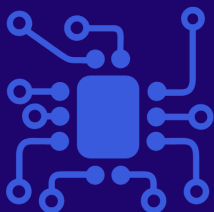
SSPT Specification	
Sensor technology	Piezo-resistive
Output Versions	mV/V, 10mV/V, 4-20mA (2-wire), 0-5V/1-5V/0-10V (3-wire), 0.5-4.5V (3-wire ratiometric)
Supply voltage	mV/V, 10mV/V: 2 - 30V dc <b>4-20mA:</b> 10 - 32V dc / <b>0-5V/1-5V/0-10V:</b> 13 - 32V dc / <b>Ratiometric:</b> 2.7 - 5.5V dc
Pressure reference	Sealed Gauge, Absolute
Pressure ranges	1, 2, 5, 10, 20, 50, 100, 200, 400 Bar / 15, 30, 75, 150, 300, 725, 1450, 2900, 5800 Psi
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
Long Term Stability:	$\leq \pm 0.10\%$ FS
Frequency Response	mV/V, 2mV/V, 10mV/V: Various kHz, dependant on capsule range 4-20mA, 0-5V, 0-10V, 0.5 to 4.5V: <10ms
Media temperature	- 4 to 60°C, 25 to 140°F
Storage temperature	- 40 to 60°C, - 40 to 140°F
Temperature effects	Typical thermal zero and span coefficients, TZS: $\pm 0.02\%$ FS/°C, TSS: $< -0.015\%$ /°C
Media wetted parts	Standard: Duplex UNS31803 Stainless Steel, Al <sub>2</sub> O <sub>3</sub> , Viton Optional:, Marine Bronze CA104 or Titanium housing, EPDM, NBR, FFKM O rings
Permissible media	All fluids compatible with media wetted parts
Electrical connection	2-pin, 3-pin or 4-pin Subsea wet-mateable connector (others on request)
Pressure connection	G1/4" DIN 3852 male (Standard), Optional Nose cone
Submersible depth	Tested to 3000m

Millivolt Sensitivity Table											
Capsule Range	Bar	0.5	1	2	5	10	20	50	100	200	400
Sensitivity	mV/V	1.4...2.4	2.0...3.6	2.0...3.5	2.3...4.0	3.4...6.0	2.4...4.0	4.0...6.0	3.0...4.8	2.5...3.9	3.1...4.8



## SSPT Dimensional Drawings



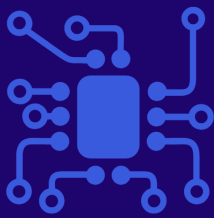


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## SSPT Part Numbering system

SSPT - SubSea Pressure Transmitter	SSPT	-	X	X	-	X	X	-	X	X	-	X	X	X	X	X	-	X	X
<b>Output Type</b>																			
*mV/V / 4-wire	A																		
*10mV/V / 4-wire	C																		
4-20mA / 2-wire	D																		
0 - 5V / 3-wire	E																		
0 - 10V / 3-wire	F																		
0.5 to 4.5V / 3-wire ratiometric	G																		
Other (contact sales)	X																		
<b>Accuracy Class</b>																			
0.25%	B																		
(Dependant on pressure range) 0.1%	C																		
<b>Electrical Connection</b>																			
2-pin Subsea wet-mateable connector				2															
3-pin Subsea wet-mateable connector				3															
4-pin Subsea wet-mateable connector				4															
Other (contact sales)				X															
<b>Process Connection</b>																			
G1/4" male DIN 3852					G														
1/4" NPT male					N														
Other (contact sales)					X														
<b>Housing Material</b>																			
UNS31803 Duplex Stainless Steel						D													
Marine Bronze CA104						M													
Titanium Alloy						T													
Other (contact sales)						X													
<b>Seal Material</b>																			
Viton							V												
EPDM							E												
NBR							N												
<b>Pressure Range</b>																			
1 Bar								1	0	0	0								
2 Bar								2	0	0	0								
5 Bar								5	0	0	0								
10 Bar								1	0	0	2								
20 Bar								2	0	0	2								
50 Bar								5	0	0	2								
100 Bar								1	0	0	3								
200 Bar								2	0	0	3								
400 Bar								4	0	0	3								
72 Psi (example)								P	0	7	2								
5000 Psi (example)								P	5	K	0								
<b>Pressure Datum</b>																			
Sealed Gauge																S			
Absolute																A			
<b>Special Options</b>																			
None																	0	0	

\* Must be 4-Pin Connector version



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## Accessories:

**Mating Wet-mateable moulded cable cordset**



**Nose Cone**

