

PSC-EM Series  
Electromagnetic (E3) Compliant  
Pressure Transducers

TAE LCO

Description

The PSC-EM series is the MIL-STD-461G compliant version of enhanced PSC-EP series pressure sensor. Designed to withstand electromagnetic environmental effects (E3) and meet the demanding requirements of the aerospace industry, with its significantly reduced weight and small design makes it ideal for mission critical applications where space, weight and reliability are critical.

The PSC-EM grade includes EMI/RFI protection and is operational under extreme vibration and mechanical shock, in environments contaminated with fuels, oils and solvents and has an extended temperature range of -55°C to +125°C.



PSC-EM Series Specifications

Performance	
Pressure	
Accuracy	≤ ±0.5% at RT
Non linearity	≤ 0.15% FS
Lifetime Drift (1000h, +125 °C)	≤ 0.5% FS
TEB (-55 °C to +125 °C)	≤ 2.5% FS
TEB (0 °C to +85 °C)	≤ 1.0% FS
Proof pressure	2 x FS pressure
Burst pressure	3 x FS pressure
Pressure response	< 1ms

Environmental Specifications	
Low Temp (Storage)	-55 °C DO-160G Section 4.5.1
Low Temp (Operating)	-55 °C DO-160G Section 4.5.2
High Temp (Storage)	+125 °C IEC 60068-2-2
High Temp (Operating)	+125 °C IEC 60068-2-2
Shock	40G 11ms Half Sine 3-axis MIL-STD-810G, Method 516.6
Vibration	Random: 15 to 2000 Hz @ approx. 50G (peak) MIL-STD-810G, Method 514.6
Altitude (Storage)	45000 feet per MIL-STD-810G CHG-1, Method 500.6-P.I
Altitude (Operating)	45000 feet per MIL-STD-810G CHG-1, Method 500.6-P.II
Salt Fog	MIL-STD-810G CHG-1, Method 509.6
Sealing	IP67, IEC-60529

Electromagnetic Specifications (MIL-STD-461G)	
CE102	10kHz -10MHz
RE102	2MHz -18GHz (With shielded cable)
CS101	30Hz -150kHz
CS114	10kHz - 200MHz
CS115	Standard waveform
CS116	10kHz -100MHz
CS117	Multiple Burst: WF3 Multiple Stroke: WF1, WF3, WF4 (With shielded cable)
CS118	±8kV direct contact discharge
RS103	20V/m, 2MHz-1GHz 60V/m, 1GHz-40GHz (For internal equipment, With shielded cable)

1) For aluminum material. Dependent on material.

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### Electrical Specifications

Supply voltage <sup>2)</sup>	0.5-4.5V Output, 9-32VDC 2-10V Output, 12-32VDC
Current consumption	< 10mA
Reverse voltage protection	Yes
Electrical interface <sup>3)</sup>	D38999/20WB98PN
Bonding	see details <sup>4)</sup>

### Mechanical Specifications

Material <sup>5)</sup>	Al7075T7651
Finish <sup>6)</sup>	Anodizing per MIL-A-8625 Type 3 Class 2
Sealing	PTFE
Pressure port	See ordering information
Weight	35g (Aluminum body)
Lock/Safety Wire	Applicable
Mounting Torque	Aluminum : 2.5Nm
	Stainless Steel : 5Nm

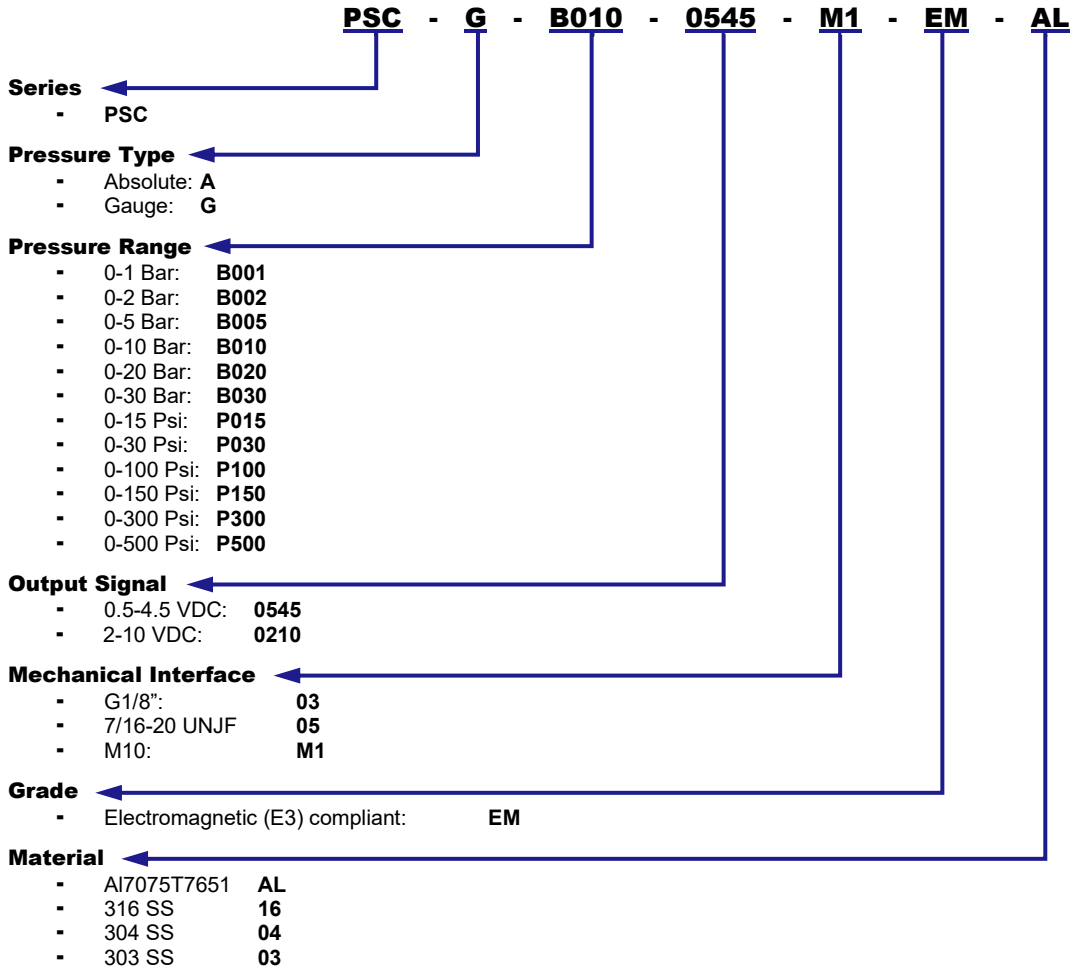
- 2) Please contact us for custom solutions.  
3) For details see electrical interface section on page 3. For different connector materials contact us.  
4) Enclosure and connector offer full and continuous protection from EMI/RFI effects.  
5) For production in different materials please contact us.  
6) Anodizing only for Al7075T7651 material.

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### Ordering Information



Typical ordering example: Gauge, 10 bar pressure, 0.5-4.5 output signal, M10 mechanical interface, Electromagnetic (E3) compliant grade, Al7075T7651 material: **PSC-G-B010-0545-M1-EM-AL**

For stock and price inquiry please contact us at: [sales@taelco.com](mailto:sales@taelco.com) or [www.taelco.com/en/contact-us/](http://www.taelco.com/en/contact-us/)  
Shipping, customs fees etc. are not included in the price quotation. TAE LCO is not responsible for customs clearance.

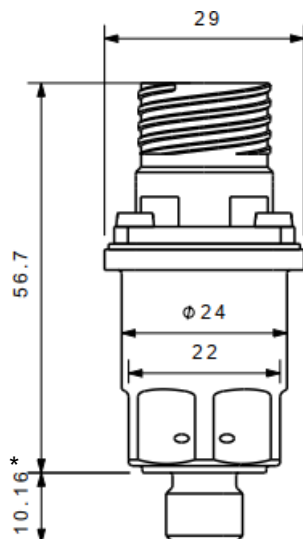
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### Dimensions and Interfaces

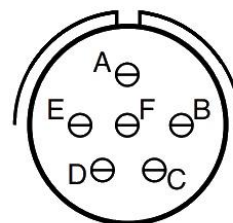
#### Housing & Pressure Interface



#### Electrical Interface (I/F)

The electrical I/F is a D38999/20WB98PN compatible circular connector.

Connector Pin Out	
Supply +	A
Pressure Signal	B
GND	C
No Connect (NC)	D
No Connect (NC)	E
No Connect (NC)	F



\*) For 7/16-20 UNJF thread interface. Please contact us about details for different thread interfaces.

**Revision History**

Revision	Reasons for Revision	Issue Date
REV A	<ul style="list-style-type: none"><li>• First revision.</li></ul>	12.09.2024

**Notice and Disclaimer**

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