Electromagnetic (E3) Compliant Differential Pressure Sensor



Description

The DPC-EM series is the MIL-STD-461G compliant version of enhanced DPC-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 DPC-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.



DPC-EM Series Specifications

Performance				
Pressure				
Differential Pressure Range	0 to 750 kPa			
Line Pressure	4 x max. Diff. Pressure			
Accuracy	≤ ±0.5% at RT			
Nonlinearity	≤ 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 Line pressure			
Burst pressure	3 x Line pressure			
Pressure response	analog			

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)	

Electrical Specifications		
Supply voltage ¹⁾	0.5-4.5V Output, 9-32VDC 2-10V Output, 12-32VDC	
Current consumption	< 10mA	
Reverse voltage protection	Yes	
Electrical interface ²⁾	D38999/20WB98PN	

Mechanical Specifications		
Material	Stainless Steel	
Pressure port	See ordering information	
Weight	135g	
Lock/Safety Wire	Applicable	
Mounting Torque	10Nm	

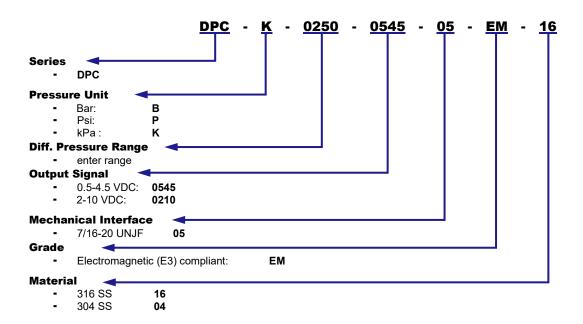
Please contact us for custom solutions.

²⁾ For details see electrical interface section on page 3. For different connector materials contact us.

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Ordering Information



Typical ordering example: 250 kPa differential pressure, 0.5-4.5 output signal, 7/16-20-UNJF mechanical interface, Electromagnetic (E3) compliant grade, 316 SS material: **DPC-K-0250-0545-05-EM-16**

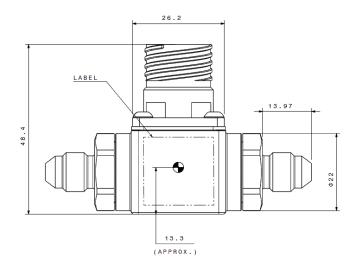
For stock and price inquiry please contact us at: sales@taelco.com or www.taelco.com/en/contact-us/ Shipping, customs fees etc. are not included in the price quotation. TAELCO is not responsible for customs clearance.

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Dimensions and Interfaces

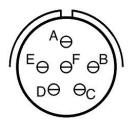
Housing & Pressure Interface



Electrical Interface (I/F)

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

Connector Pin Out		
Supply +	А	
Pressure Signal	В	
GND	С	
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.

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Revision History

Revision	Reasons for Revision	Issue Date
REV A	First revision.	19.11.2025

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