



## MINIATURE, S-CLASS AMPLIFIED, GRADE 1 EEE, PRESSURE TRANSDUCER

Designed to operate in the most extreme orbital environments and provide measurements at pressure ranges from **0-500** to **0-5,000 PSIA** this new/**smaller** transducer is now **2.47"** (62.73mm) in length by **0.77"** (19.55mm) diameter and only weights in at **2.64 oz.** (75 grams).



SMALLER FOOTPRINT!

The **Miniature S-Class Series** is offered to system designers seeking accuracy and reliability in a smaller footprint for applications where transducer size and mounting options are a concern and is designed with **Class 'S', QML-V / ELDRS free** electronics to meet **EEE-INST-002/ MSFC-STD-3012 Grade 1** standards.

Available in Grade 2 level components and can be customized with alternate pressure ranges, connectors, mounting and pressure port configurations.

### Specifications:

**Calibration Data:** Calibration Certificates are supplied with each unit.

### Performance: \*

**Static Error Band:** Includes the effects of non-linearity, hysteresis and repeatability at 75°F ±5°F (24°C ±3°C). The static error band shall not exceed ±0.25% of the Full Scale Output.

**Total Error Band:** Includes non-linearity, hysteresis, temperature effects and input voltage line regulation over the compensated temperature and input voltage range. The total error band shall not exceed ±1.5% of the full scale output, referenced to the 75°F (24°C) best straight line.

**Operating Temperature Range (-XX): -01:** -40°F to 140°F (-40°C to 60°C) **-02:** -40°F to 122°F (-40°C to 50°C).

**Compensated Temperature Range:** 24°F to 122°F (-4°C to 50°C).

### Mechanical: \*

**Pressure Range:** **212-30-010-XX:** 0-500 PSIA, **212-35-070-XX:** 0-5,000 PSIA.

**Proof Pressure:** **212-30-010-XX:** 750 PSI, **212-35-070-XX:** 7,500 PSI.

**Burst Pressure:** **212-30-010-XX:** 1,250 PSI, **212-35-070-XX:** 12,500 PSI.

**Double Barrier:** Secondary containment to 5,000 PSI.

**External Leakage:** Less than 1x10<sup>-6</sup> SCC/SEC of He at proof pressure.

**Pressure Media:** Any compatible with 15-5 PH CRES & 321 CRES.

**Tube Material:** Type 321 CRES.

**Total Ionizing Doze:** 100K Rad minimum.

**Weight:** 2.64 oz (75 grams) maximum.

### Electrical: \*

**Input Voltage (-XX): -01:** ± 12-15, **-02:** 24-32 VDC.

**Input Power (-XX): -01:** 350 mW maximum, **-02:** 800 mW, maximum.

**Output Voltage:** At 24°C ± 3°C.

**Full Scale Output (-XX): -01:** +5.000 ±0.075 VDC, **-02:** +5.100 ±0.075 VDC.

**Zero Pressure Output:** (10<sup>-2</sup> TORR or less): **-01:** +0.000 ±0.075 VDC, **-02:** +0.100 ±0.075 VDC

**Output Impedance:** Less than 1000Ω.

**Output Load:** Unit shall operate with a resistive load of 1MΩ or greater.

**Output Voltage Limited:** Output shall not exceed 7 VDC.

**Output Ripple:** Less than 10.0 mV RMS, DC to 10kHz.

**Output Capacitance:** Less than 1000pF.

**Frequency Response:** 10Hz minimum.

**Insulation Resistance:** All pins (except F) to case, 100MΩ minimum at 50VDC for 30 seconds.

### Electrical Connections (-XX):

**-01 +12V:** A= +12V Input, B= Input Return, C= -12V Input, D= Signal Return, E= Signal Output, F= Case Ground

**-02 +V:** A= +V Input, B= Input Return, C= Do Not Connect, D= Signal Return, E= Signal Output, F= Case Ground



212-30-010-XX  
(Low Pressure)  
**-01:** (± 12-15 VDC)  
**-02:** (+24-32 VDC).

212-35-070-XX  
(High Pressure)  
**-01:** (± 12-15 VDC)  
**-02:** (+24-32 VDC).



Datasheet P/N: 212-3X-0X0-DS\_REV-F

\* Contact us or your authorized Paine Electronics representative for many more standard and/or custom configurations or options.

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Call or email us today for more information!

**509-881-2100**  
moreinfo@paineelectronics.com

**Paine Electronics, LLC**  
5545 Nelpar Drive, East Wenatchee WA 98802  
Tel: (509) 881-2100 | Fax: (509) 881-2115

Visit us on the web at:  
[www.paineelectronics.com](http://www.paineelectronics.com)