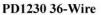
Solid-State Protection for Intrinsically Safe Tank Gauging Probes, Leak/Point Level Sensors and Associated ATG Console Interface









#### **Product Description**

The PD series Overvoltage/Surge Protection panel is designed to provide increased protection for ATG field-wired tank gauging probes, sensors and their associated ATG interface without introducing energy storing devices that might otherwise alter the intrinsically safe performance and likely void the system safety certification. Additionally, the PD series is designed to be wired into probe and sensor circuits without concern for affecting measurement performance. Protection is provided in the form of solid state, replaceable cartridges, each capable of protecting three wires. The PD1230 includes a battery-operated test socket with confirming LED indicators showing the status of each of the three circuits within the cartridge. Typically, the PD1230 is installed where probe/sensor field wiring enters the building where the ATG console is located. A PD230 is used as the tank-side junction box for probe and sensor wiring. Multiple PD230s may be used if required for additional wires. Although designed for the TMS series Tank Management Systems, the PD series can be used with any ATG console provided that the proper cartridge voltage is available (Consult factory).

### Features

- Voltage overload protection for ATG probes, leak/point level sensors and associated ATG interface
- Sneak Current Protection Overcurrent protection even at low voltage
- Specifically designed for use with intrinsically safe ATG field wiring Adds no capacitance or inductance
- Plug-in replaceable cartridges Test socket with LED indicators included (PD1230 only)
- Designed for use with all Pneumercator MP series magnetostrictive probes, and all leak/point level sensors.



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## **PD1230** Panel Specifications

|   | Dimensions (W x H x D):   | 9.0" x 13.0" x 4.375" (229 mm x 330 mm x 111 mm)                            |
|---|---------------------------|---|
| • | · · · · · ·               |   |
| • | Weight:                   | 10 lb (4.5 kg)  |
| • | Enclosure Construction:   | Cast Aluminum, Epoxy Powder Coat Finish, Gasketed Cover w/Captive SS Screws |
| • | Enclosure rating:         | NEMA 4X (IP56), Watertight and Corrosion-proof                              |
| • | Operating Temperature:    | -40 °F to 185 °F (-40 °C to 85 °C)  |
| • | Humidity:                 | 95% Non-condensing  |
| • | Cartridge Capacity:       | 12 (Each protects 3 wires)  |
| • | Wire Protection Capacity: | 36 (Includes ground and shield wires)                                       |
| ٠ | Power Requirements:       | None for protection. Test socket - 9VDC alkaline battery, supplied          |

# **PD230** Panel Specifications

| •<br>•<br>•<br>•<br>• | Dimensions (W x H x D):<br>Weight:<br>Enclosure Construction:<br>Enclosure rating:<br>Operating Temperature:<br>Humidity:<br>Cartridge Capacity:<br>Wire Protection Capacity: | <ul> <li>3.8" x 3.8" x 3.1" (97 mm x 97 mm x 79 mm)</li> <li>2 lb (0.9 kg)</li> <li>Cast Aluminum, Epoxy Powder Coat Finish, Gasketed Cover w/Captive SS Screws NEMA 4X (IP56), Watertight and Corrosion-proof</li> <li>-40 °F to 185 °F (-40 °C to 85 °C)</li> <li>95% Non-condensing</li> <li>2 (Each protects 3 wires)</li> <li>6 (Includes ground and shield wires)</li> </ul> |
|-----------------------|---|--|
| •                     | Wire Protection Capacity:<br>Power Requirements:  | 6 (Includes ground and shield wires)<br>None   |

## **Cartridge Specifications**

| •<br>•<br>•<br>•<br>•<br>•<br>•<br>•<br>• | Dimensions (W x L x H):<br>Weight:<br>Storage Temperature:<br>Operating Temperature:<br>Available Voltages:<br>Peak Pulse Power Diss.:<br>Clamping Time:<br>Impulse Rep. Rate:<br>Breakdown Voltage:<br>Max. Operating Line Voltage:<br>Series Fuse Protection:<br>Fuse Lightning Surge Withstand:<br>Wire Protection Capacity:<br>Packaging: | 2.0" x 2.1" x 0.6" (51 mm x 53 mm x 15 mm)<br>2.1 oz (60 g)<br>-55 °F to 200 °F (-48 °C to 95 °C)<br>-40 °F to 185 °F (-40 °C to 85 °C)<br>24 VDC standard (P/N PM324), 5VDC available (P/N PM305)<br>5000 W @ 10/1000 µs, 34000 W @ 8/20 µs<br>Less than 5 ns<br>0.05%<br>28.9 V – 35.3 V @ 5 ma (PM324) / 6.67 V – 7.37 V @ 50 ma (PM305)<br>26 V (PM324) / 5.5 V (PM305)<br>0.35 A<br>25 A peak, 800 V, 10x560 µs<br>3 (Includes ground and shield wires)<br>Cartridges are sold three (3) to a package |
|---|---|--|
|---|---|--|

## **Model Numbers**

| ٠ | PD1230  | 12 cartridge/36-wire capacity, w/test socket - Cartridges ordered separately |
|---|---------|--|
| • | PD230   | 2 cartridge/6-wire capacity – Cartridges ordered separately                  |
| ٠ | PM324-3 | Solid State, 3-wire cartridge for 24VDC operation – 3-Pack                   |
| • | PM305-3 | Solid State 3-wire cartridge for $5VDC$ operation $-3$ -Pack                 |

PM305-3 Solid State, 3-wire cartridge for 5VDC operation – 3-Pack

