

Paine 220-10-020 Series Pressure Transmitter

Digital, RS485, +60°C, 0-10,000 PSIA (689 BAR) Pressure & Temperature



Designed to reduce space, lower installation costs and eliminate the need for A/D conversion, our **220-10-020 Series** incorporates proprietary sensor technology with innovative microprocessor-based programmability for high accuracy measurements.

The **220-10-020 Series** is fully compensated and calibrated for pressure ranges from 0-100 (6 BAR) to 0-10,000 PSIA (689 BAR) and provides designers with digital network flexibility for easy to control and monitoring of pressure and temperature measurements in the toughest remote applications!

Solutions

- Harsh / Extreme Environment Ready.
- Digital Accuracy.
- Longer & Simpler Network Connections.

Potential Applications

- Subsea Exploration.
- ROV & AUV Controls & Measurements.
- Remote / Extreme Pressure Monitoring.
- Test Stands & Industrial Automation.

Features

- **Operating Temperature:** -40°F to +260°F (-40°C to +126°C).
- **Digital Output:** RS-485. Other options, RS-232, Modbus®, CANbus®, CANopen® & SPI.
- **Pressure Range:** 0-100 (6 BAR) to 0-10,000 PSIA (0 to 1034 BAR).
- **Resolution:** 16 Bits Minimum. 0.077 PSI for 5,000 PSI (344 BAR) Full Scale.
- **Temperature Output:** °F or °C.
- **Temperature Resolution:** 16 Bits Minimum, Better Than 0.1°F.

Specifications

Calibration: Calibration Certificates are supplied with each unit and available on-line.

Performance

Total Error Band of Digital Pressure Output: See Pressure Table, over the calibrated temperature range.

Pressure Output in PSI: Fully compensated for temperature, non-linearity, zero offset and full scale output.

Pressure Resolution: 16 Bits minimum (see Pressure Table).

Temperature Output: °F or °C.

Temperature Measurement: -40°F to +260°F (-40°C to +126°C).

Temperature Resolution: 16 Bits minimum. Better than 0.1°F.

Operating Life Expectancy: See industrial digital chart DS-473.

Environmental

Operating Temperature Range: -40°F to +260°F (-40°C to +126°C).

Calibrated Temperature Range: +32°F to +250°F (0°C to +121°C).

Operating Media: Any compatible with Inconel® 725.

Mechanical

Pressure Range: Contact factory for additional pressure ranges.

Pressure Table					
Standard Part Number:	Pressure Range PSIA (BAR)	Proof Pressure PSIA (BAR)	Burst Pressure PSIA (BAR)	Resolution PSI, Better Than	Total Error Band (%FS)
220-10-020-01	100 (6)	150 (10)	250 (17)	0.002	0.50%
220-10-020-02	500 (34)	750 (51)	1,250 (86)	0.008	0.20%
220-10-020-03	1,000 (68)	1,500 (103)	2,500 (172)	0.016	0.20%
220-10-020-04	5,000 (344)	7,500 (517)	12,500 (861)	0.077	0.10%
220-10-020-05	10,000 (689)	15,000 (1034)	20,000 (1723)	0.153	0.10%

Operating Media: Fluids and gases compatible with 15-5 PH CRES.

Pressure Fitting: Per AS4395E04 (37° flare JIC-4).

Electrical

Input Voltage: +5.00 VDC ± 0.25 VDC.

Input Current: 30 mA maximum @ 5 VDC.

Over Voltage Protection: Not protected from damage by the application of over voltage. Do not exceed 5.5 VDC.

Reverse Polarity: "POWER IN" is protected from the application of reverse polarity.

Digital Output: RS-485, 19.2k Baud, Odd Parity.

Electrical Connections: 6 Pin bayonet locking electrical connector. Mates with MS3116-10-6S. (P/N: 247-99-100-02 sold separately).

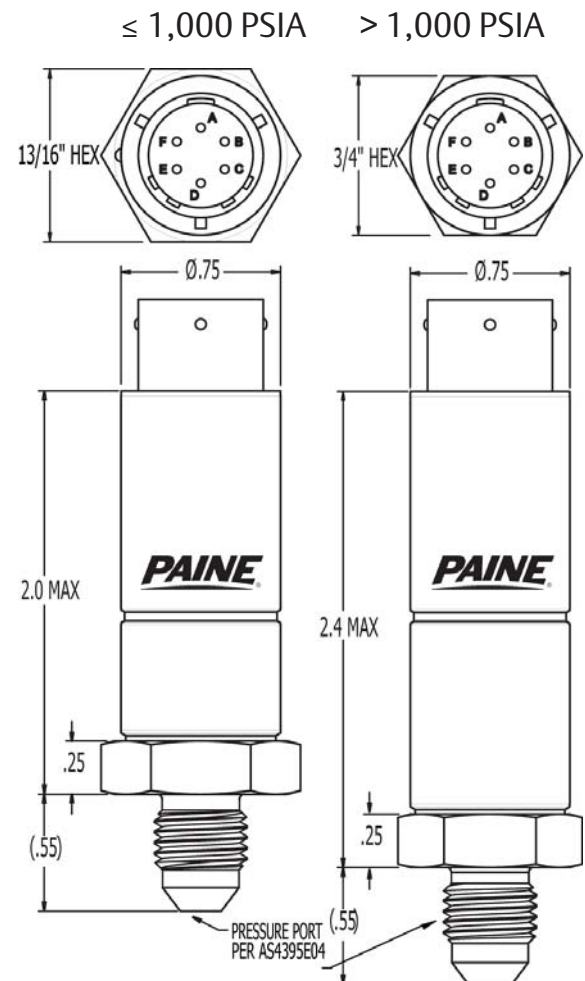
Insulation Resistance: All pins together to case 100MΩ minimum at 50 VDC and 75°F, ± 10°F.

User Guide and Programming: Document 200.100 provided.

Emerson Process Management
Rosemount Specialty Products, LLC
5545 Nelpar Drive, East Wenatchee WA 98802
T +1 509 881 2100
F +1 509 881 2115
E Paine.Products@emerson.com
www.EmersonProcess.com

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Dimensions (inches)



Connections

PIN	FUNCTION
A	POWER IN
B	RS 485 "B" *
C	RS 485 "A" *
D	POWER RETURN
E	COMMUNICATION RETURN
F	NOT USED

* Per TIA-485-A