

Smart Gauge Pressure Transmitters - HGPTxxxx



1. Before You Begin

This guide provides basic information to assist you in getting started. Go to hieries.oleumtech.com to download the full User Guide for detailed installation and other information.



WARNING!

EXPLOSION HAZARD — THIS DEVICE SHALL BE REMOVED FROM THE AREA KNOWN TO BE HAZARDOUS IF MAINTENANCE IS REQUIRED.

TO PREVENT IGNITION OF FLAMMABLE OR COMBUSTIBLE ATMOSPHERES. DISCONNECT POWER BEFORE SERVICING.

Ensure installation of the device meets applicable state and National Electrical Code requirements.

The installation of the transmitter should only be performed by a qualified installer or a factory representative.

CAUTION: All housing entries MUST be tightly SEALED using thread seal tape or sealant. Failure to seal all port entries may allow moisture to enter the transmitter housing, cause damage to internal components, and void warranty.

2. Power

Supply Voltage (at Terminal)

1-5 V: 9 to 55 Vdc Max / RS485 (Modbus): 9 to 30 Vdc Max

4-20 mA: 16.5 to 55 Vdc Max (28 Vdc Max for IS)

4-20 mA/HART: 16.5 to 55 Vdc Max (28 Vdc Max for IS)

Current Consumption

1-5 V: 5 mA (Max) / RS485 (Modbus): 12 mA (Max)

4-20 mA, 4-20 mA/HART: 21 mA (Max)

HART Multi-drop: 4 mA

Grounding

To avoid ground loops, shielded twisted pair signal cable is recommended. Shielded layer utilizes single-grounding, insulated from the pressure transmitter, with grounding at the control cabinet.

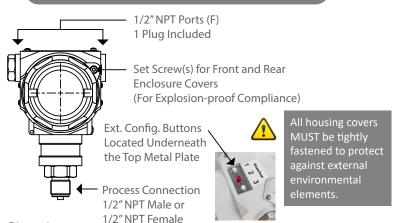
3. Accuracy

TD Ratio	Output Accuracy
TD Ratio ≤ 10:1	± 0.075% of span
10:1 < TD Ratio ≤ 20:1	± 0.0075% times TD ratio of span

TD = URL/ |URV-LRV| URL = Upper Range Limit URV = Upper Range Value LRV = Lower Range Value

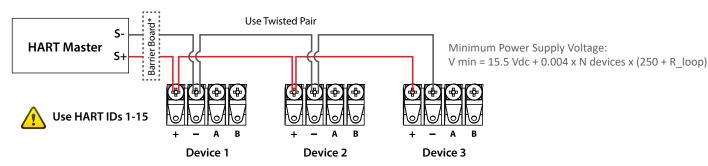
4. Hardware

Dimensions:

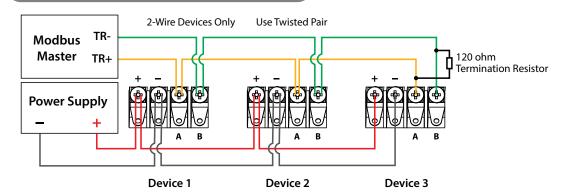


LCD Type: 3.7" (W) x 5.1" (H) x 5.2" (D) / 94 mm (W) x 130 mm (H) x 133 mm (D) Non-LCD: 3.7" (W) x 5.1" (H) x 4.3" (D) / 94 mm (W) x 130 mm (H) x 110 mm (D)

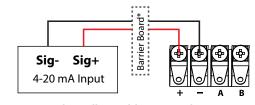
5. Wiring - HART Multi-drop



6. Wiring - RS485 Modbus



7. Wiring - 4-20 mA

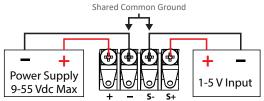




The polling address must be set to 0 to enable the 4-20 mA analog signal.

*Barrier Boards are only required with Intrinsically Safe models and not required for standard Explosion Proof models.

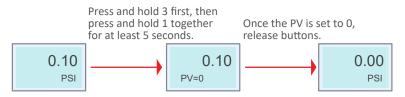
8. Wiring - 1-5 V



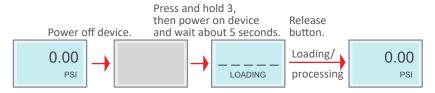


9. Basic LCD Functions - 1-5 V / 4-20mA / HART

a. Set the Process Value (PV) = 0 Atmospheric Pressure
The transmitter must be isolated from the process.



b. Factory Reset



c. Backlight Control (Only Controllable on 1-5 V Models)



Note: 4-20mA/HART (LCD and Non-LCD) models support HART Universal and Common Practice Commands, which are compatible with most of the HART field Communicators.

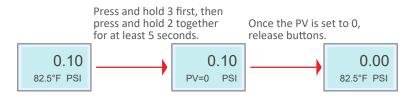
The device can be configured via its internal or external buttons.



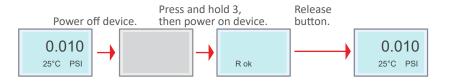


10. Basic LCD Functions - RS485 Modbus

a. Set the Process Value (PV) = 0 Atmospheric Pressure The transmitter must be isolated from the process.



b. Factory Reset



c. Switching Temperature Unit (°C or °F)

