CUSTOM SENSORS & TECHNOLOGY

A DIVISION OF CUSTOM SAMPLE SYSTEMS

PT1, PT4, & PTL SERIES PRESSURE TRANSMITTERS

ADAPTABLE PRESSURE TRANSMITTERS FOR BIOPROCESSING & INDUSTRIAL APPLICATIONS

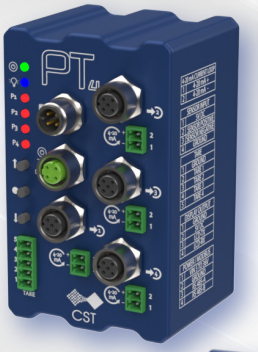
The PT Series Pressure Transmitters (PT1, PT4, and PTL) are flexible signal conditioning and transmission platforms designed to auto-recognize and interface with a wide range of pressure sensors available on the market. These transmitters provide reliable signal conversion, scaling, and communication for pressure measurement applications where flexibility, modularity, and ease of integration are critical.

Unlike fixed sensor–transmitter ecosystems, the PT Series is intentionally designed to be used with a variety of different pressure sensors on the market, allowing users to mix and match pressure sensors without the need to re-calibrate individual channels for their application while leveraging a common, robust transmitter platform.

KEY FEATURES

- Compatible with many industry-leading pressure sensors and transducers.
- Supports single-channel (PT1) and multi-channel (PT4) with DIN-rail mounting for process applications. Lab (PTL) configuration is available for benchtop applications.
- Optional touch-screen remote display (PT1 and PT4) for real-time pressure visualization. Display integrated into PTL.
- Standardized M12 electrical and communication interfaces. Adapter cables are available for other pressure sensors. Contact us for more info.
- Analog (4-20 mA) and digital (Modbus RS-485) outputs for seamless control system integration.
- Suitable for bioprocessing, filtration, and general industrial pressure monitoring.

PRESSURE TRANSMITTER MODELS



PT1 – SINGLE-CHANNEL PRESSURE TRANSMITTER (DIN-RAIL MOUNT)

- Selectable pressure ranges (0-10, 0-30, 0-60, 0-100 PSI) & programmable
- Auto-recognition and linearization of sensor type
- Dual communication outputs analog 4-20 mA & Modbus RS485
- Optional remote IP65 touch-screen display

PT4 – FOUR-CHANNEL PRESSURE TRANSMITTER (DIN-RAIL MOUNT)

- Accepts up to four independent pressure sensor inputs
- Independent scalable channels (selectable or programmable)
- Selectable pressure ranges (0-10, 0-30, 0-60, 0-100 PSI) & programmable
- Auto-recognition and linearization of sensor type
- Dual communication outputs analog 4-20 mA & Modbus RS485
- Selectable: TMP (transmembrane pressure)
- Optional remote IP65 touch-screen display

PTL – LAB PRESSURE TRANSMITTER

- The same as the PT4, but with an integrated display for use in benchtop lab settings.

SENSOR COMPATIBILITY

The PT Series is designed with auto-sensor detection to automatically interface with a wide variety of pressure sensors available on the market including the CST Process Pressure Sensors. CST recognized the need to create a plug-and-play system to work with other sensor brands and created the PT Series that automatically detects which type of sensor is plugged in and calibrates itself accordingly. Sensor interfacing is supported through standardized M12 connections and configurable transmitter parameters, allowing users to adapt the PT Series to different sensor ranges, outputs, and calibration requirements.

GENERAL SPECIFICATIONS

PT1 Dimensions	3.2″ x 1.8″ x 4.4″
PT4 Dimensions	3.2″ x 2.7″ x 4.4″
PTL Dimensions	4.41″ x 2.74″ x 4.98″
Remote Display	4.5″ x 3.75″ x 0.50″
Pressure Range	-10 to 100 psi
Accuracy 0-50 psi	±2% of gauge reading
Accuracy 51-80 psi	±2.5% of gauge reading
Accuracy 81-100 psi	±3% of gauge reading
Accuracy 81-100 psi	±4% of gauge reading
Sensor Input Connection	M12 4-pin Key A female
Transmitter Input Voltage	12-36 VDC
Outputs	4-20 mA, Modbus (auto-detect baud rate), TMP (transmembrane pressure) for PT4/PTL
Tare	Push button or remote tare by Phoenix contacts connectors on front panel
Indicator	LED indicator for function & sensor connected status
Mounting Style	DIN-rail mounting for PT1/PT4
Display	Optional IP65 remote color touch screen display for PT1/PT4. PTL display included.

Custom configurations and third-party sensor compatibility available upon request.

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