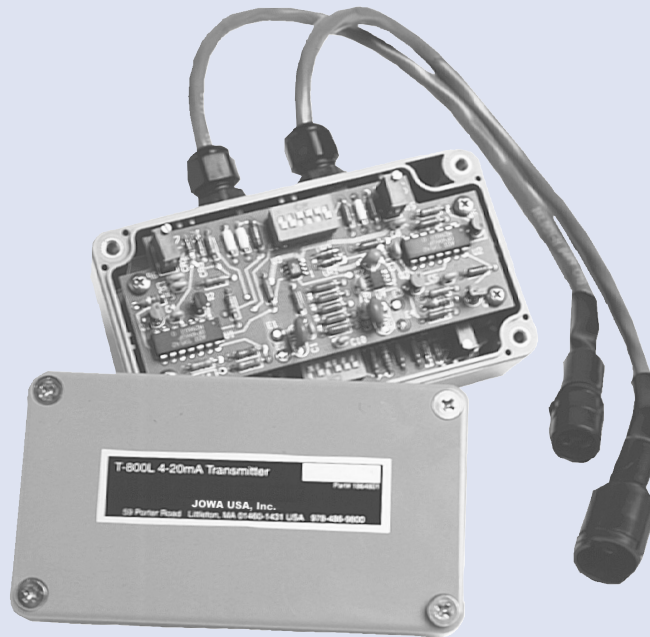


# T-800 4-20mA Current Transmitter for Metritape Level Sensors



## Features:

- Converts the unique resistance-tape sensor output into 4-20mA signal
- Includes built-in electrical noise filtering and surge protection
- Mounts conveniently inside sensor housing
- DIP switches and multiturn potentiometers set span and offset
- FM and CSA approval for intrinsic safety

## Description

The T-800 series 4-20mA current transmitter is a compact, single or dual channel, 2-wire transmitter which converts the variable resistance of the sensor into a stable, linear 4-20mA signal. The transmitter is contained inside the sensor housing so no additional mounting arrangements are required. ITT Cannon plugs are featured for easy connection to sensor. DIP switches (coarse adjustment) and multiturn potentiometers (fine adjustment) are provided for calibration.

The transmitter is housed in a NEMA 4X ABS housing. FM/CSA approved intrinsically safe when used with the appropriate zener barriers.

| Model   | Function            |
|---------|---------------------|
| T-800L  | Level only          |
| T-800LT | Level & temperature |
| T-800TT | Dual temperature    |



# T-800 4-20mA Current Transmitter

## Specifications

**Channels:** One or two depending on model.

**Sensor Input:** Resistance-tape level sensor or resistive thermal detector (RTD).

**Input Format:** 2 terminal linear resistance.

**Calibration Settings:** 6 DIP switches determine coarse adjustments and 25 turn potentiometers fine adjustments for span and offset.

**Span Adjustment Range:** Level 50 to 108% of full scale (min. 2.5 feet or 76cm); Temperature 90 to 276° F (50 to 154° C) when 4mA is 0°.

**Offset Adjustment Range:** Level: 2.8 to 102 feet (.85 to 31m); Temperature: -24 to 55° F (-31 to 13° C).

**Supply Voltage:** Minimum transmitter excitation voltage 7.5 VDC; maximum power supply voltage 32.0 VDC, nominal 24 VDC.

**Supply Regulation:** ±0.005% of output voltage change.

**Temperature Stability:** ±0.001% of output / ° F.

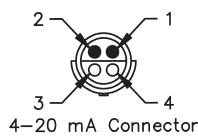
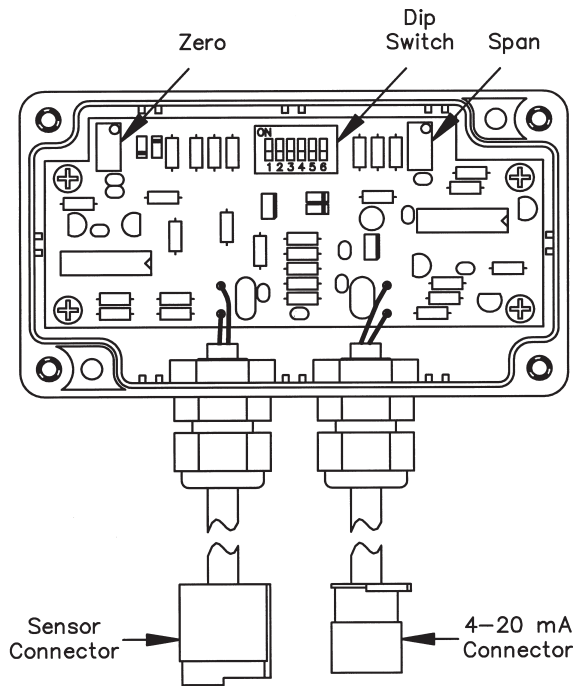
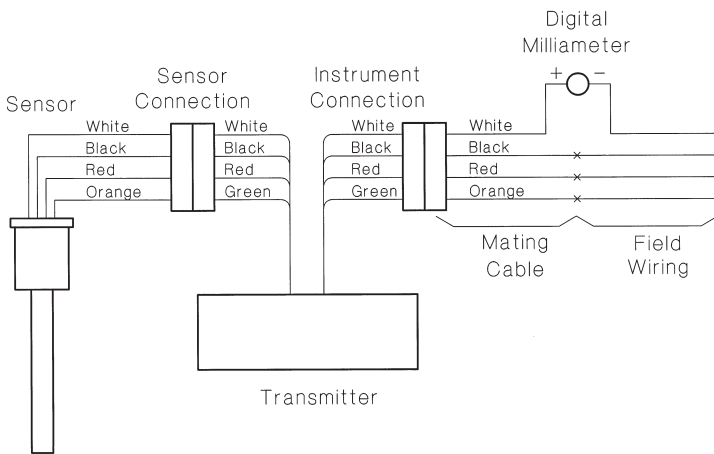
**Operating Temperature:** -22 to 158° F (-30 to 70° C).

**Housing:** NEMA 4X; ABS. 2.5" x 4.5" x 1.5"

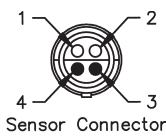
**Approvals:** Intrinsically Safe when used with approved zener barrier: FM and CSA approved: Class I, Division 1, Groups C, D. Entity Parameters: V Max = 32V, I Max = 120mA, Ci = 0.24µF, Li = 0.0 mH.

**Weight:** 8 oz (.23kg).

## Wiring:



○ - Socket  
● - Pin



| Location | Wire    | Function |
|----------|---------|----------|
| Pin 1    | Black   | Return   |
| Pin 2    | White   | +V       |
| Socket 3 | Red     | Return   |
| Socket 4 | Grn/Org | +V       |

| Location | Wire    | Function               |
|----------|---------|------------------------|
| Socket 1 | Black   | Level Sensor           |
| Socket 2 | White   | Level Sensor           |
| Pin 3    | Red     | Temp Sensor (Optional) |
| Pin 4    | Grn/Org | Temp Sensor (Optional) |



JOWA USA, INC.  
Littleton, MA 01460-1431

Tel: 978-486-9800  
E-mail: info@jowa-usa.com

Web Site: www.jowa-usa.com