

Two-Wire, Process-Loop Indicator

Optional NEMA 4X/7 Housing

TX83A Series
Starts at
\$335



- ✓ FM Intrinsic Safety Certification
- ✓ Powered by 1 to 5, 4 to 20 or 10 to 50 mA Signal
- ✓ 2.5V Max Voltage Drop
- ✓ 8.9 mm (0.35") LCD
- ✓ 2000-Count Zero Suppression or Elevation
- ✓ 100 to 2000 Count Span Adjust
- ✓ Selectable Dummy Right-Hand Zero
- ✓ -40 to 85°C Operation
- ✓ Compact, 74 mm (2.9") Dia Diecast Housing
- ✓ Waterproof to 35 kPa (5 psi)
- ✓ Shock Resistant to 55 g

Options

- ✓ ½ EMT Conduit Fitting
- ✓ ½ NPT Pipe Fitting
- ✓ Relay-Track Mounting Adaptors
- ✓ External Explosion-Proof Housing
- ✓ Relay-Track Mounting

The TX83A is a 2-wire current-loop indicator that is powered directly by a 1 to 5 mA, 4 to 20 mA or 10 to 50 mA process loop signal. No separate power supply connections are required. This reduces overall hardware and field wiring costs and provides immunity from most electrical noise encountered in process control environments. The electronics are isolated from the case.

Readout of Process Variables

The TX83A provides extensive zero and span adjustment capability, so that it can read out directly in percent or in engineering units for process variables such as pressure,



TX83A, \$335, with EPW3-ATEX NEMA 4X/7 enclosure, \$162.

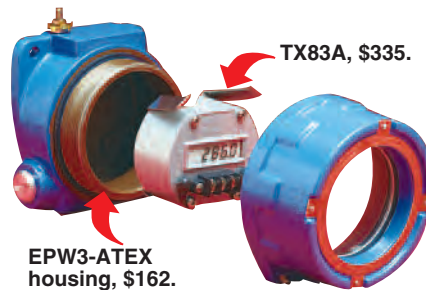


TX83A, \$335.



TX84, \$355.

All shown smaller than actual size.



EPW3-ATEX housing, \$162.

flow, temperature, or level. Its liquid crystal display provides 3½ active digits, a selectable dummy right-hand zero, and 4 programmable decimal points.

Easy to Configure and Calibrate

Both span and zero are fine-tuned with precision multi-turn potentiometers. These are accessible through holes in the diecast cover, which are normally sealed with fluorosilicone plugs.

Designed for Harsh Environments

All versions of the TX83A are rated for operation from -40 to 85°C (-40 to 185°F) with specified accuracy. The case is made of diecast metal and is waterproof to 35 kPa (5 psi). The electronics are firmly connected to the case top, so that the meter can withstand high vibration and shock.

Intrinsic Safety Certification

Intrinsic safety certification allows the TX83A to be used in worst-case hazardous environments with no

need for an explosion-proof housing, provided that an intrinsic safety barrier is used to limit the voltage and current that may be introduced in the hazardous environment. FM certification (USA) is for class I, II, III, division 1, groups A, B, C, D, E, F, G. The FM certification number is 5X2AO.AX (3610).

Explosion-Proof Housing Options

Two external NEMA 7 explosion-proof and NEMA 4X waterproof, sand-cast, copper-free aluminum enclosures with corrosion resistance "safety-blue" polyester powder-coating for use in hazardous locations. FM, UL, cUL certification: class I, groups B, C, D; class II, groups E, F, G; and class III, Type 4X. Option EPW3 is a single-height enclosure for one TX83A loop-powered indicator. Option EPW2 is a double-height enclosure for a TX83A loop-powered indicator on top and a TX1500 series isolated 2-wire 4 to 20 mA transmitter on the bottom for indicating transmitter applications. Available with 2 female ½ NPT pipe fittings, all required internal mounting hardware, and mounting flanges for a wall or bulkhead.



OMEGACARESM extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARESM covers parts, labor and equivalent loaners.

Specifications

Input Signal: 1 to 5 mA, 4 to 20 mA or 10 to 50 mA (jumper-selectable)

Linear Range: 0.3 to 50 mA

Protection: 200 mA forward, 1000 mA reverse

Forward Voltage Drop, Max: 2.5 V up to 50 mA

Input Resistance: 50 Ω at 1 to 5 mA, 12.5 Ω at 4 to 20 mA, 5 Ω at 10 to 50 mA

Zero Adjust: -2000 to 2000 counts (4 jumper-selectable ranges plus fine adjustment)

Span Adjust: 0 to 2000 counts (with fine adjustment)

NMR: 46 dB, 50/60 Hz

CMR (Meter to Case): 120 dB, DC to 60 Hz

CMV (Meter to Case): 700 Vp

RFI Susceptibility: Less than ±0.5% of span with conduit fitting or external explosion-proof housing in 10V/m field strength at 27 or 440 MHz

Accuracy at 25°C

Maximum Error:

±0.1% of span ±1 count 00 zero tempco

±0.1 count/°C typical,

±0.2 count/°C max

Span Tempco: ±0.005% of span/°C

typical, ±0.015% of span/°C max

Analog-to-Digital Conversion

Technique: Dual-slope, average-value

Polarity: Automatic

Integration Period: 100 ms

Read Rate: 2.5/s

Display

Type: 7-segment LCD

Height: 8.9 mm (0.35")

Symbols: -1.8.8.8.0 (3½ active digits plus jumper-selectable dummy right-hand zero)

Decimal Points: 4 positions, jumper-selectable

Overrange: 3 least-significant active digits blank

Environmental

Operating Temperature:

-40 to 85°C (-40 to 185°F)

Vibration: 1.52 mm (0.06") double-amplitude cycled at 10 to 80 Hz

Shock: 55 g half-sine, 9 to 13 ms duration

Waterproof Pressure: 35 kPa max (5 psi)

Mechanical

Weight: 14 oz (400 g)

Diameter: 74 mm (2.9")

Height, Including Barrier:

48 mm (1.9")

Electrical Connections:

TX83A: 3-terminal barrier strip with #6 screws

TX84: ½ NPT male pipe fitting with two 0.3 meter #18 stranded wires

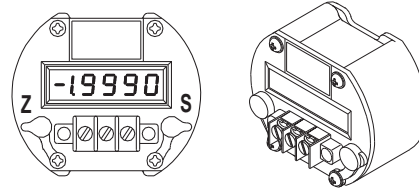
TX84-2: ½" EMT male conduit fitting with two 0.3 meter #18 stranded wires

Mounting Methods

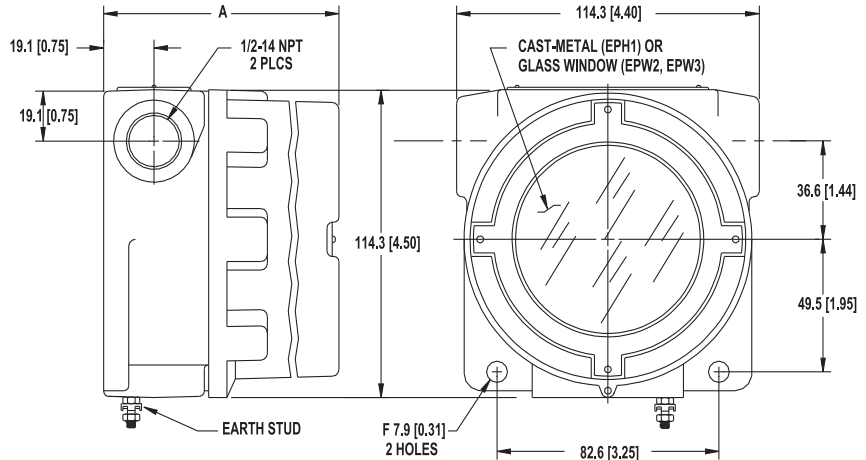
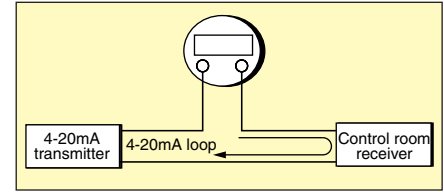
TX83A:

- Surface mount with 4 #6 rear-entry screws from backside of bulkhead
- Snap mount into 63.5 mm (2.50") relay track
- Surface mount with two #8 front-entry screws
Requires MAT1 adaptor plate

- Snap mount into 69.9 mm (2.75") or 76.2 mm (3.00") relay track
Requires MAT1 adaptor plate.
- Snap mount into DIN relay track
Requires MDT1 rail clamp
- Push mount into explosion proof housing EPW3-ATEX



The TX83A process-loop indicator may be added to an existing 4 to 20 mA or 10 to 50 mA installation. No additional wiring is required, since the meter is powered directly by the current loop.



AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model No.	Price	Configuration
TX83A	\$335	Flat surface or relay track mounting
TX84	355	NPT pipe mounting
TX84-2	355	EMT conduit mounting

Mounting Options (TX83A Only)

Order Suffix	Add'l. Price	Description
-MAT1	\$10	Adaptor plate for surface mount or 69.9 mm relay track
-MDT1	15	Rail clamp for DIN relay track

Options

Order Suffix	Add'l. Price	Description
-FS	\$45	Custom configuration and calibration

Accessories

Model No.	Price	Description
MXS1	\$12	Spring retainers for TX83A in explosion proof housing EPW3
MXS2	12	Spring retainers for TX83A in explosion proof housing EPW2
EPW3-ATEX	162	NEMA 4 and NEMA 7 rated environmental enclosure with window, single height; includes MXS1 hardware (supplied with Demko/ATEX certificate)
EPW2-ATEX	179	NEMA 4 and NEMA 7 rated environmental enclosure with window, double height for TX83A and TX1500 series transmitter; includes MXS1 and MXS2 hardware (supplied with Demko/ATEX certificate)

Comes complete with operator's manual.

Ordering Examples: TX84 current loop-indicator with NPT pipe mounting, \$355.

OCW-3 OMEGACARESM extends standard 1-year warranty to a total of 4 years (\$86), \$355 + 86 = \$441.



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