

# YPP6870

Explosion-Proof Large Display Process Meter

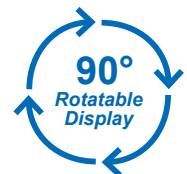


APPROVED



PROCESS

- 4-20 mA Input
- Modern, Sleek and Practical Enclosure
- 3½ Digits, 1" (25.4 mm) Display
- Display Mountable at 0°, 90°, 180°, & 270° Degrees.
- Easy Calibration and Installation
- Loop-Powered Backlight Option
- 1 V Drop (4 V with Backlight)
- Explosion-Proof, IP68, NEMA 4X Enclosure
- Flanges for Wall or Pipe Mounting
- HART® Protocol Transparent
- Operates from -40 to 75°C



# YPP6870 Explosion-Proof Large Display Process Meter

## SPECIFICATIONS

Except where noted all specifications apply to operation at +25°C.

**Display:** 3½ digit LCD, 1" (25.4 mm); -1,999 to 1,999

**Display Update Rate:** 2.5 Updates/Second

**Display Orientation:** Display may be mounted at 90° increments up to 270° from default orientation

**Overrange:** Display reads 1 on the left most digit

**Programming Method:** Four front mounted rotary control dials accessed when the cover is removed.

**Recalibration:** Recommended at least every 12 months.

**Normal Mode Rejection:** 60 dB rejection ratio

**Operating Temperature Range:** -40 to 75°C

**Storage Temperature Range:** -40 to 75°C

**Relative Humidity:** 0 to 90% non-condensing

**Connections:** Screw terminals accept 12 to 22 AWG wire

**Enclosure:** Explosion-proof die cast aluminum with glass window, 0.30% max copper content, corrosion resistant epoxy coating, color: green.

NEMA 4X, IP68. Two ¾" NPT threaded conduit openings. One ¾" NPT nickel plated brass conduit plug with 10 mm hex key fitting installed.

**Mounting:** May be mounted directly to conduit. Two slotted flanges for wall mounting or NPS 1½" to 2½" or DN 40 to 65 mm pipe mounting.

**Overall Dimensions:** 5.65" x 5.25" x 4.86"  
(144 mm x 133 mm x 124 mm) (W x H x D)

**Weight:** 5.00 lbs (80 oz, 2.27 kg)

**Warranty:** 3 years parts and labor

## Input

**Input:** 4-20 mA

**Accuracy:** ±0.1% of full span ±1 count

**Temperature Drift:** 150 PPM/°C from -40 to 75°C ambient

**Decimal Point:** User selectable decimal point

**Calibration Range:** 4 mA input: -1000 to +1000; 20 mA between 20 and 2000 counts greater than 4 mA display. Two point linear display span.

**Maximum Voltage Drop:** 1 VDC @ 20 mA with backlight; 4 VDC @ 20 mA with loop-powered backlight

**Input Overload:** Over current protection to 2 A max.

**Loop-Powered Backlight Option:** Factory installed only. Powered directly from the 4-20 mA loop, no batteries required. Backlight can be enabled or disabled via alternative wiring of terminal block. The display brightness will increase as the input signal current increases.

## Product Ratings & Approvals

**FM:** Explosion-proof for use in Class I, Division 1, Groups B, C, D. Class II, Division 1, Groups E, F, G. Class III, Division 1; T6. Class I, Zone 1, AEx d IIC T6 Gb. Zone 21, AEx tb IIIC T85°C. Ta = -40 to 75°C.

Enclosure: Type 4X & IP66. Certificate number: 3048884

**ATEX:** II 2 G D. Ex d IIC T6 Gb. Ex tb IIIC T85°C Db IP68.

Ta = -40 to 75°C. Certificate number: Sira 13ATEX1121X

**IECEX:** IECEX SIR 13.0042X. Ex d IIC T6 Gb. Ex tb IIIC T85°C Db IP68.

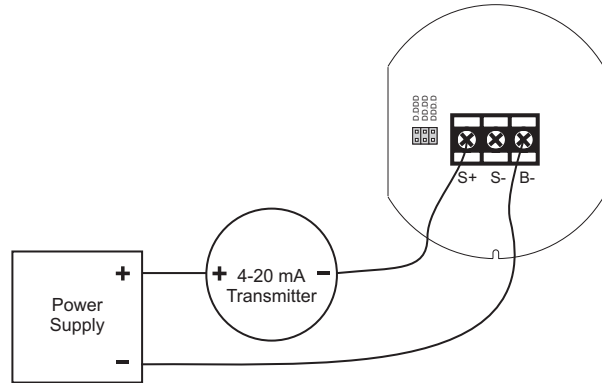
Ta = -40 to 75°C

**CSA:** Class I, Division 1, Groups B, C, D. Class II, Division 1, Groups E, F, G. Class III, Division 1; T6. Class I, Zone 1, Ex d IIC T6.

Ta = -40 to 75°C. Enclosure: Type 4X & IP66.

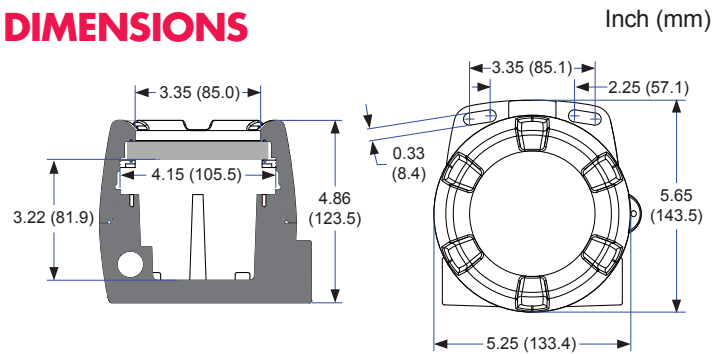
Certificate number: 2605742

## CONNECTIONS



YPP6870 Input Connections with Loop-Powered Backlight

## DIMENSIONS



## ORDERING INFORMATION

### YPP6870 • Large Display Process Meter

Model	Options Installed
YPP6870-0L0	None
YPP6870-0K0	Backlight

Your Local Distributor is:

## Disclaimer

The information contained in this document is subject to change without notice. Yokogawa Corporation of America makes no representations or warranties with respect to the contents hereof, and specifically disclaims any implied warranties of merchantability or fitness for a particular purpose.

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