



# MB330 Explosion-proof Pressure Transmitter

## Features

- Explosion-proof, mildewproof, moistureproof;
- High precision, anti-vibration, anti-jamming;
- Perfect long-term stability;
- Various output signal, accepting custom design.

## Application

- Engineering machinery、 Car
- Oil and Chemical industry
- Automatic checkout system
- Shipping、 Railway transportation
- Wind power generation
- Supply heating、 Medicine
- Hydraulic pressure、 Air compressor and Pump



## Introduction

MB330 Explosion-proof Pressure Transmitter is designed for explosion occasions pressure measurement. Exia II CT6, Exd II BT4 authorized. All-welded stainless steel construction. High strength and small volume, perfect anti-vibration, mildewproof & moistureproof designing.

## Specification

|                      |  |     |     |             |     |     |            |               |               |
|----------------------|--|-----|-----|-------------|-----|-----|------------|---------------|---------------|
| Pressure Type        | Gauge pressure, Absolute pressure, Sealed gauge pressure |     |     |             |     |     |            |               |               |
| Measuring Medium     | Liquid ,gas, vapor ,which are compatible with SUS304     |     |     |             |     |     |            |               |               |
| Pressure range(MPa)  | -0.1   | 1   | 1.6 | 6           | 10  | 20  | 40         | 60            | or customized |
| Pressure range (bar) | -1   | 10  | 16  | 60          | 100 | 200 | 400        | 600           | or customized |
| Pressure range (psi) | -14.5  | 300 | 700 | 900         | 2k  | 4k  | 8k         | or customized |               |
| Overload range       | 200%FS   |     |     |             |     |     |            |               |               |
| Bursting pressure    | 300%FS   |     |     |             |     |     |            |               |               |
| Power Supply         | (9~36) VDC,  |     |     | (9~36) VDC, |     |     | (9~36) VDC |               |               |
| Output signal        | (0~5)V,  |     |     | (1~5)V,     |     |     | (4~20)mA   |               |               |
| Transmitting         | 2-wires,   |     |     | 3-wires,    |     |     | 3-wires,   |               |               |
| Load                 | ≤(U-15)/0.02Ω ,  |     |     | > 100k,     |     |     | > 100k     |               |               |
| Vibration            | 10~500Hz 25g   |     |     |             |     |     |            |               |               |
| Shock resistance     | 50g 11ms   |     |     |             |     |     |            |               |               |



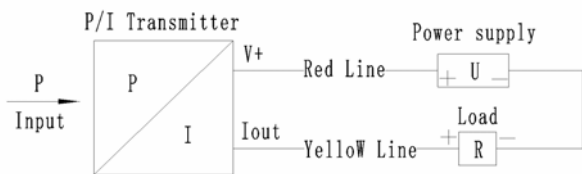
|                       |   |
|-----------------------|---|
| Accuracy              | $\pm 0.5\%FS(\text{typ.}) @25^{\circ}C$   |
| Zero temp.drift       | $\pm 0.03\%FS/^{\circ}C$                  |
| FS temp.drift         | $\pm 0.03\%FS/^{\circ}C$                  |
| Long-term stability   | $\pm 0.2\%FS/Y$                           |
| Insulation resistance | 250 M $\Omega$ /250V, 100M $\Omega$ /250V |
| Medium temp.          | $(-40 \sim 125)^{\circ}C$                 |
| Ambient temp.         | $(-40 \sim 85)^{\circ}C$                  |
| Storage temp.         | $(-40 \sim 125)^{\circ}C$                 |
| Compensated temp.     | $(-10 \sim 80)^{\circ}C$                  |
| Housing               | SUS304                                    |
| Diaphragm             | SS316L                                    |
| O-ring                | Viton                                     |
| Protection            | IP67                                      |

### Electrical Connection

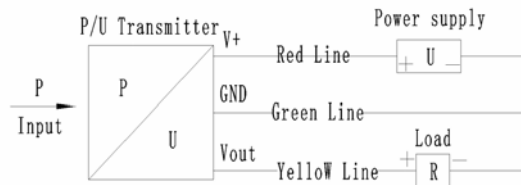
- Cable connection wiring

| Color  | 2-wires | 3-wires |
|--------|---------|---------|
| Red    | +V      | +V      |
| Yellow | 0V/+OUT | GND     |
| Green  | Null    | +OUT    |

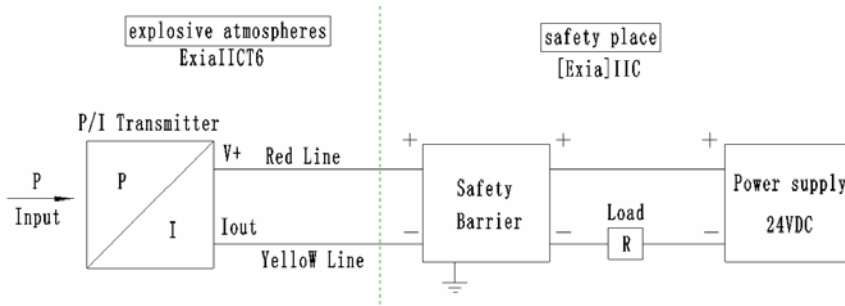
2-wires, 4~20mA output



3-wires, 0~5V, 1~5V output



Intrinsic safe system:



Parameters:

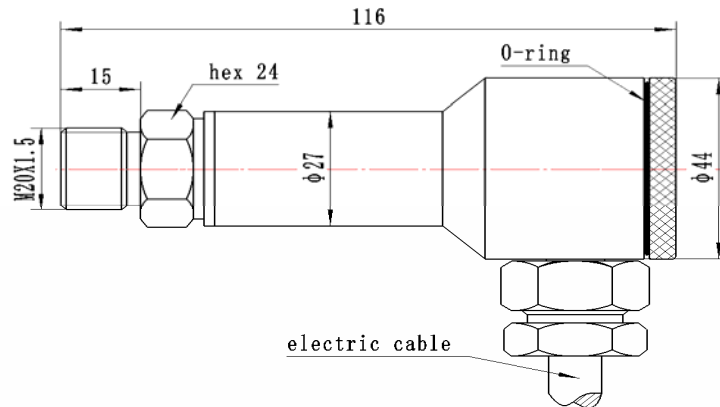
$U_i \leq 28VDC$      $I_i \leq mA$   
 $L_i = 0mH$      $C_i = 22nF$      $P_i \leq 0.65W$

Safety Barrier Parameters:

$U_o \leq 28VDC$      $I_o \leq mA$



Outline Construction: (Unit:mm)



### Order Guide

|       |                                      |  |
|-------|--------------------------------------|--|
| MB330 | Explosion-proof Pressure Transmitter |  |
|       | 0~30MPa                              | Pressure range (Unit:Psi,Bar,Kpa,Mpa...) |
|       |                                      | Code   Pressure reference                |
|       |                                      | A   Absolute pressure                    |
|       |                                      | G   Gauge pressure                       |
|       |                                      | S   Sealed gauge pressure                |
|       |                                      | Code   Excitation                        |
|       |                                      | V1   24V                                 |
|       |                                      | V2   12V                                 |
|       |                                      | V3   others (please specify)             |
|       |                                      | Code   Output signal                     |
|       |                                      | S1   4 ~ 20mA                            |
|       |                                      | S2   1 ~ 5V                              |
|       |                                      | S3   0 ~ 5V                              |
|       |                                      | S4   others (please specify)             |
|       |                                      | Code   Pressure connection               |
|       |                                      | C1   M20×1.5 or G1/2                     |
|       |                                      | C2   G1/2                                |
|       |                                      | C3   others (please specify)             |
|       |                                      | Code   Accuracy                          |
|       |                                      | A1   0.1%FS                              |
|       |                                      | A2   0.25%FS                             |
|       |                                      | A3   0.5%FS                              |
|       |                                      | Code   Specific need                     |
|       |                                      | I   Intrinsically safe Exia II CT6       |
|       |                                      | E   Anti-vibration                       |



|       |         |   |    |    |    |    |   |                    |
|-------|---------|---|----|----|----|----|---|--------------------|
|       |         |   |    |    |    |    | K | Anti-impact        |
|       |         |   |    |    |    |    | L | Cable length 2m    |
|       |         |   |    |    |    |    | Y | Other requirements |
| MB330 | 0~30MPa | G | V1 | S1 | C1 | A1 | E |                    |

### Order Note

1. The material of measuring medium should be compatible with the stainless steel. If it is corrosive, pls specify its material in detail.
2. Please note in the order if you need zero pressure as negative pressure.
3. Please note it in detail if your application environment is critical or the elements which may influence the pressure transmitter normal operation existed.
4. The structure and demension of the pressure transmitter can be used for most of the application occasions, if your application space is too small or having other requirements to the transmitters, please specify it in detail.
5. All specifications are subject to change. Contact Gaohua for specifications and engineering drawings that are critical to your application. Drawings contained in this document are for reference only.