



## Features

- Wider pressure range
- Full stainless steel construction; optional pressure port; flush diaphragm type, sanitation type and anti-corrosive type are available; protection IP65
- Optional output signal; local calibration and displayable
- Reversed-polarity, transient current & voltage protection, which conform to EMI standard
- Intrinsic safe ex-proof version conforming to GB3836.4 Exia II CT6 Ga Regulation; Ex-proof Certificate is issued
- EXD product conforming to GB3836.2 Exd II CT6 Gb Regulation; EXD Certificate is issued
- Ship-use product conforming to CCS Rules of Classification of Sea-going Steel Ships(2018); Ship-use Certificate is issued
- CE and RoHS Certificates
- National patent, patent No.: ZL002 26957.0

## Introduction

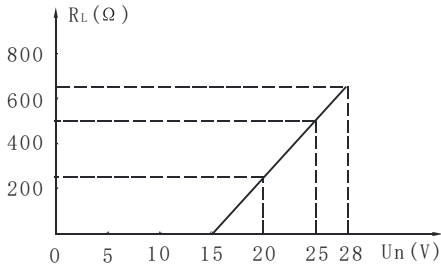
MPM480 transmitter uses piezoresistive OEM pressure sensor with isolated stainless steel diaphragm as signal sensing element, through automatic testing, laser trimming compensating zero and sensitivity in wider temperature range; the amplifier circuit is in stainless steel housing, transforming sensor signal into standard output signal. Through strict component making, semi-finished product and all-finished product testing and aging, the transmitter is stable and reliable, having excellent flexibility, sensitivity and diversity. The product is widely used for pressure measure and control of petroleum, chemi-industry, metallurgy, power station and hydrology, etc.

## Specification

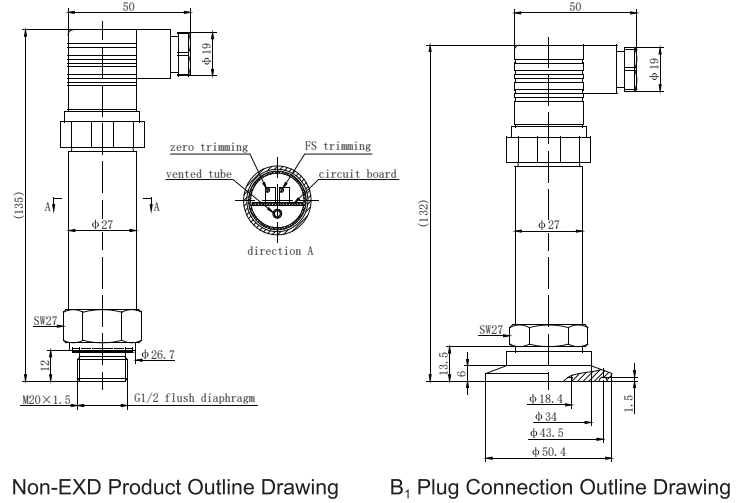
- Pressure range: -1bar...0bar~ 0.1bar...1000bar
- Overpressure: 1.5 times FS or 1100bar(min. value is valid)
- Pressure type: gauge, absolute or sealed gauge
- Accuracy: 0.25%FS(typ.); 0.5%FS(max.)
- Long-term stability: 0.2%FS/year
- Zero temp. drift: 0.03%FS/°C ( $\leq 1$ bar); 0.02%FS/°C ( $> 1$ bar)
- FS temp. drift: 0.03%FS/°C ( $\leq 1$ bar); 0.02%FS/°C ( $> 1$ bar)
- Operation temp.: -30°C ~80°C ; -10°C ~70°C (Cable);  
-10°C ~60°C (Exia); -20°C ~60°C (EXD)
- Storage temp.: -40°C ~120°C ; -20°C ~85°C (Cable)
- Power supply: 15V~28V DC (This case through the safety grid power supply)
- Output signal: 4mA ~20mA DC; 0mA~10/20mA DC;  
0/1V~5/10V DC
- Transmitting: 2-wire                      3-wire                      3-wire
- Load:  $\leq (U-15)/0.02\Omega$        $\leq (U-15)/0.02\Omega$        $> 100k$
- Protection: IP65
- Electric connection: Plug connection or 1.5m cable connection
- Housing: stainless steel 304
- Diaphragm: stainless steel 316L
- O-ring: Viton
- Rubber casing: NBR

**Load Characteristic**

- 2-wire, 4mA~20mA DC output
- 3-wire, 0mA~10/20mA DC output
- 15V~28V DC power supply
- $RL < (Un-15)/0.02 \text{ (}\Omega\text{)}$

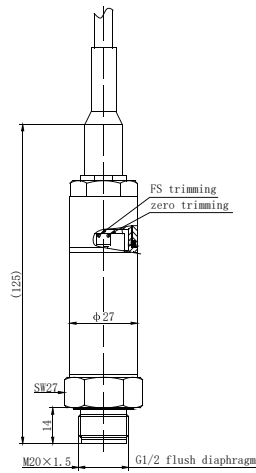


**Outline Construction (Unit: mm)**

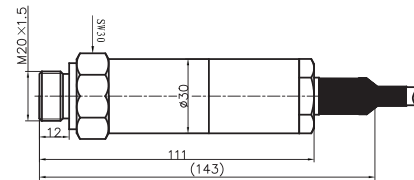


Non-EXD Product Outline Drawing

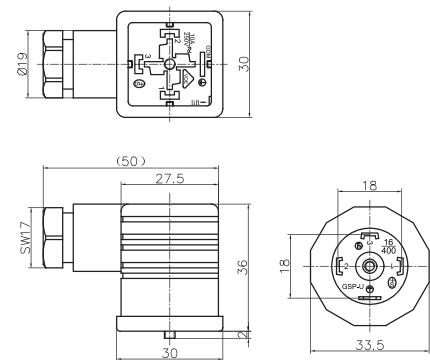
B, Plug Connection Outline Drawing



B<sub>2</sub> Cable Connection Outline Drawing



EXD Product Outline Drawing



Plug Outline and Arrangement

### Electrical Connection

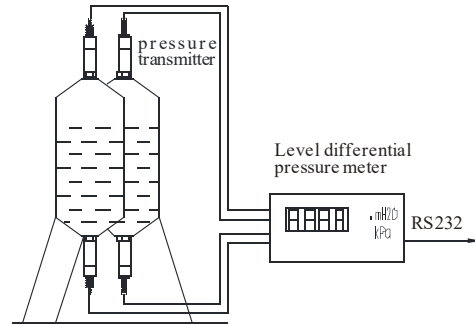
Plug Connection:

Pin	2-wire	3-wire
1	+V	+V
2	0V/+OUT	GND
3	Null	+OUT

Cable Connection:

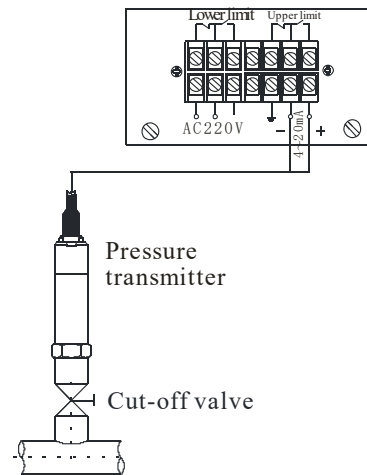
Wire color	2-wire	3-wire
Black	+V	+V
Red	0V/+OUT	+OUT
White	Null	GND

### Application Example

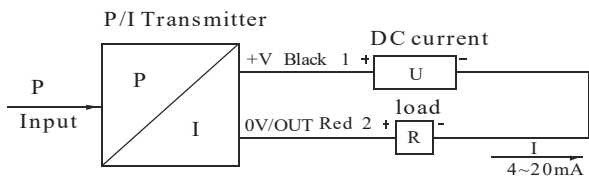


Flush diaphragm transmitter installed on beer tank to measure level

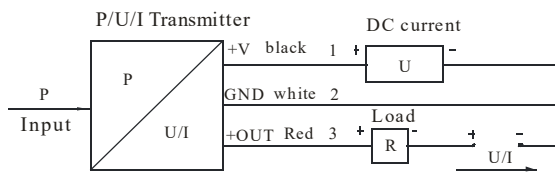
#### Instruments



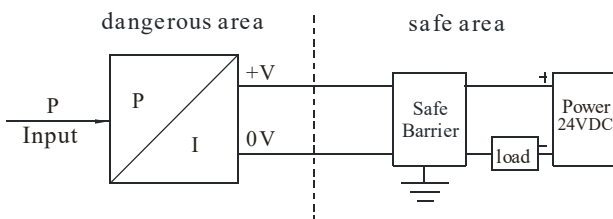
General transmitter installed on tube to measure pressure



Electrical Connection for transmitter output 2-wire 4mA~20mA DC



Electrical Connection for transmitter 3-wire 0/1V~5V DC, 0mA~10/20mA DC



Electrical Connection for Ex-proof transmitter (Intrinsic safe system 2-wire 4mA~20mA DC)

Transmitter Ex-proof parameter:

Ui: 28V DC li: 93mA DC

Li: 0mH Ci: 0.044uF

Pi: 0.65W

Safe barrier's ex-proof parameter:

Uo: 28V DC lo: 93mA DC

Po: 0.65W

## Order Guide

MPM480		Pressure Transmitter		
	Range	Pressure range: -1bar...0bar~0.1bar...1000bar		
	[0~X]bar	X= actual pressure range		
	Code	Output signal		
	E	4mA~20mA DC		
	F	1V~5V DC		
	J	0V~5V DC		
	Q	0mA~10mA DC		
	U	0mA~20mA DC		
	V	0V~10V DC		
	Code	Construction material		
		Diaphragm	Pressure port	Housing
	22	SS 316L	SS	SS
	24	SS 316L	SS 316L	SS 316L
	25	Tantalum	SS	SS
	35	Tantalum	Hastelloy C	SS
	Code	Other		
	B <sub>1</sub>	Plug connection		
	B <sub>2</sub>	Cable connection cable length: 1.5m		
	B <sub>3</sub>	7-pin plug connection		
	PC <sub>1</sub>	Flush diaphragm, M20×1.5 male		
	PC <sub>3</sub>	Flush diaphragm, G1/2 male		
	P <sub>3</sub>	Sanitation type: -1bar...0bar~0.2bar...20bar, DN25 clamp connection		
	M <sub>6</sub>	4 digits LED digital indicator(only for 4mA~20mA) Non-explosion-proof or non-inspection products		
	M <sub>7</sub>	4 digits LCD digital indicator(only for 4mA~20mA) Non-explosion-proof or non-inspection products		
	i	Intrinsic safe version Exia II CT6 Ga		
	T	Ship-use		
	d	Exd II CT6 Gb		
	C <sub>1</sub>	M20×1.5 male, face type seal		
	C <sub>3</sub>	G1/2 male		
	C <sub>5</sub>	M20×1.5 male, waterline seal		
	Code	Other		
	G	Gauge		
	A	Absolute		
	S	Sealed gauge		
MPM480	[0~1]bar	E	22	B <sub>1</sub> PC <sub>3</sub> G the whole spec.

## Notes:

- Please pay attention that the media should be compatible with contacting material;
- Please pay attention for transmitter with LCD or LED, the power supply of the transmitter should not be less than 20V DC;
- When users choose LED digital indicator (M<sub>6</sub>), environment temperature range for transmitter: -20°C ~ 70°C ; for LCD digital indicator (M<sub>7</sub>), Range: -10°C ~ 60°C . Table head Settings refer to our company table head selection, which can be obtained from our website;
- The measurement range of flush membrane (PC<sub>1</sub>, PC<sub>3</sub>) transmitters is 0bar ~ 0.7bar...350bar;
- If ordering products need metrological verification certificate, or other special requirements, please contact us and indicate in the order.