Differential pressure transmitter

Model: PT124B-3501

ZHYQ

Description

The model PT124B-3501 differential pressure transmitter can be used to measure liquid, gas, or stem flow, as well as liquid level, density and pressure. It outputs a 4 to 20mA DC HART signal corresponding to the measured pressure differential. The model PT124B-3501 also features remote setup and monitoring though communication with the model RST375 TERMINAL or RSM100 Modem.

Feature

Adopts FST mono crystalline silicon MEMS chip to encapsulate
Accuracy +/-0.075% , Error less than +/-0.1%/10MPa
Advanced stability and static pressure performance
Excellent overload performance
Suitable for negative pressure measurement
Intelligent static pressure and temperature compensation
Internal integrated high sensitivity temperature transducer
Perfect thermal drift
All SS316L welding sealed construction with silicon filled
Fast response time

Specification

| Item	Specification
Medium	Gas, steam, liquid
Measurement range (Non migration)	0-0.1KPa-2MPa
Accuracy	+/-0.075%, +/-0.1%
Wetted parts material	SS316L, Hastelloy C, Tantalum
Output	2-wire 4-20mA, HART communication optional, linear output or square root output available
Ambient temperature	-40~85℃ -20~65℃ (with LCD display, fluorine rubber O-ring)
Protection grade	IP67
Electrical connector	M20*1.5 cable sealing buckle, terminal suitable for 0.5-2.5mm2 cable
Process connector	1/2NPT(F) , 7/16 female on the cover flanges or other optional
Mounting position effect	Rotation in diaphragm plane has no effect. Tilting up to 90°will cause zero shift up to 0.4KPa, which can be corrected by the zero adjustment.

Dimensions and Installation
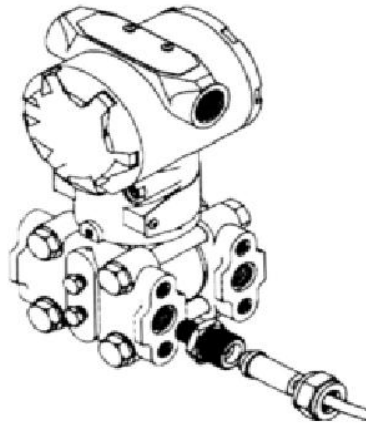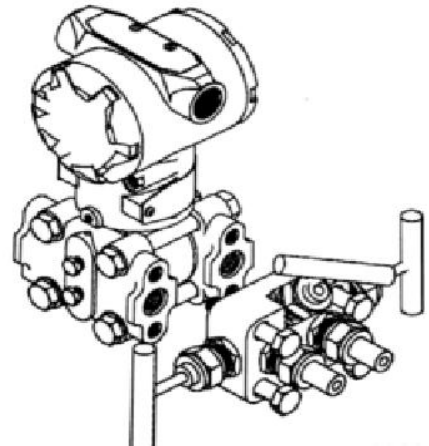
Horizontal tube connection (side face)
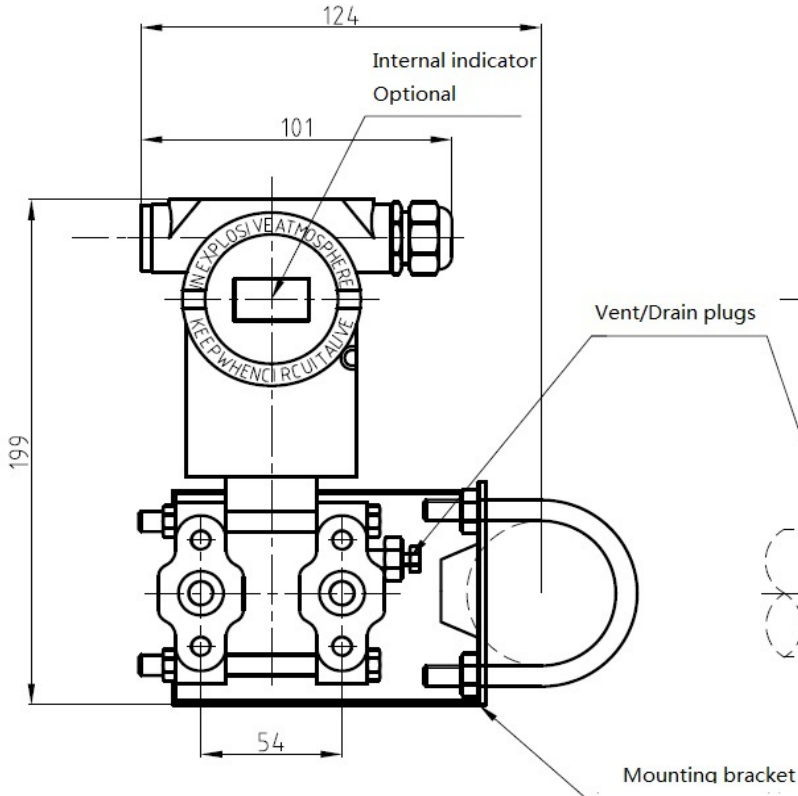
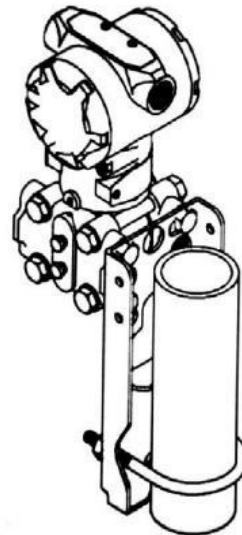Horizontal tube connection (front)
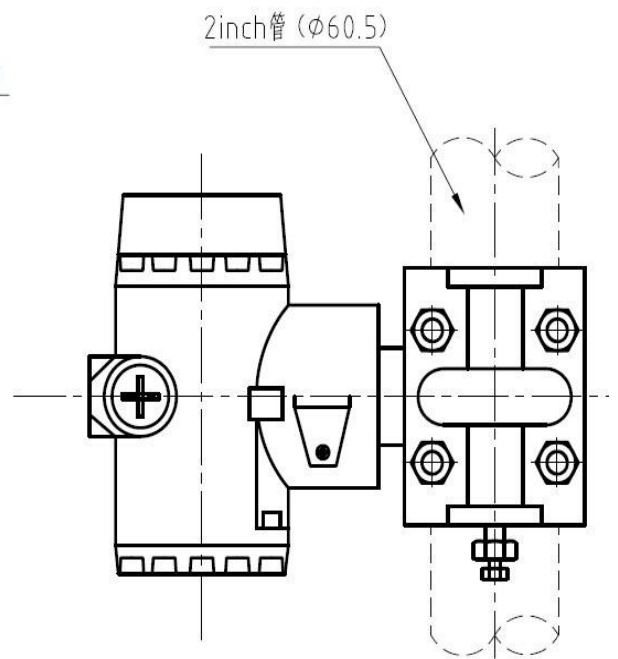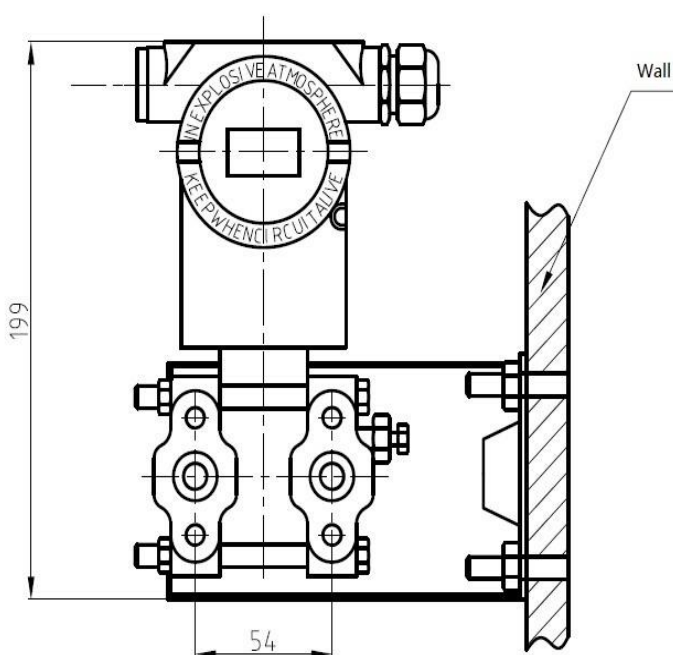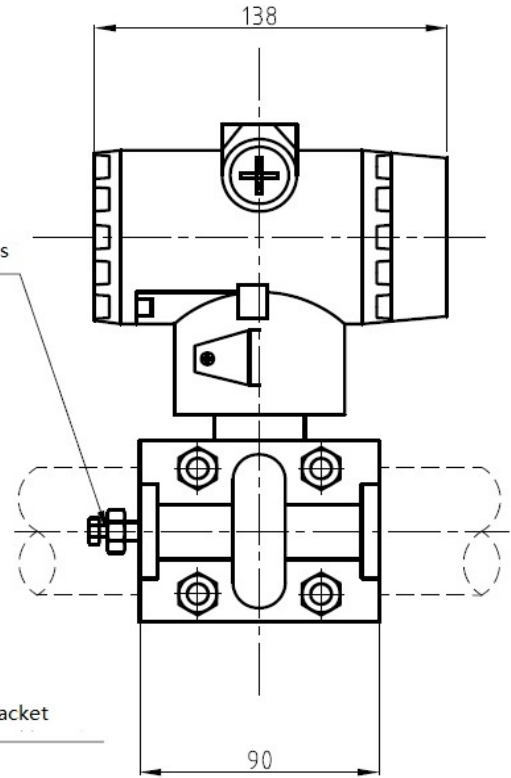
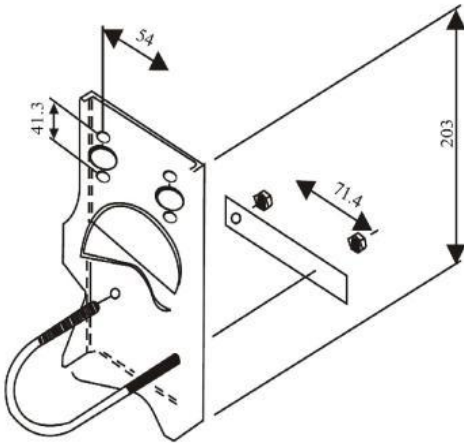## Installation   Diagram
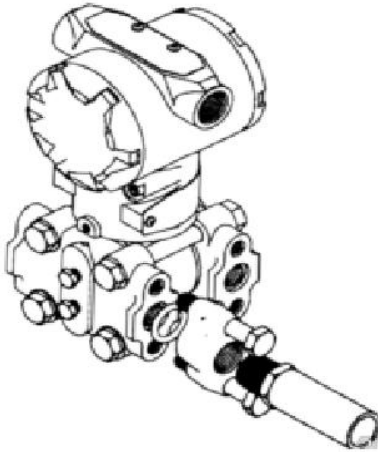
1/2NPT Female   Welded Joint Connection   Three-valve Manifold Connection

Pipe mounted flat bracket
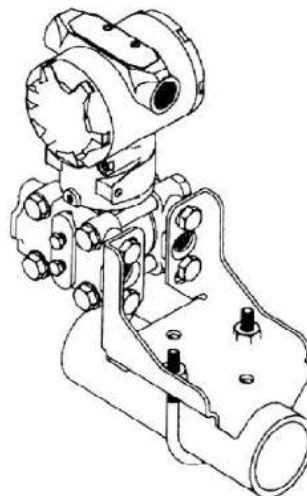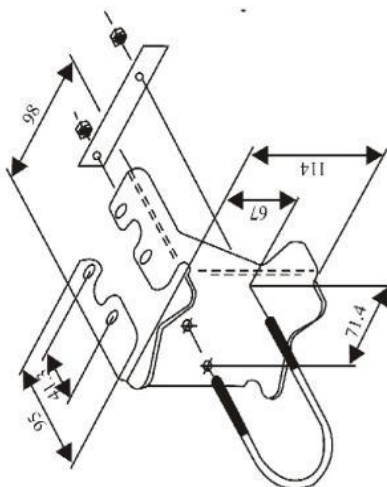
Pipe mounted bent bracket

Site installation schematic

Tank Liquid Level Measurement

Pipe Differential Pressure Measurement

Wiring connector
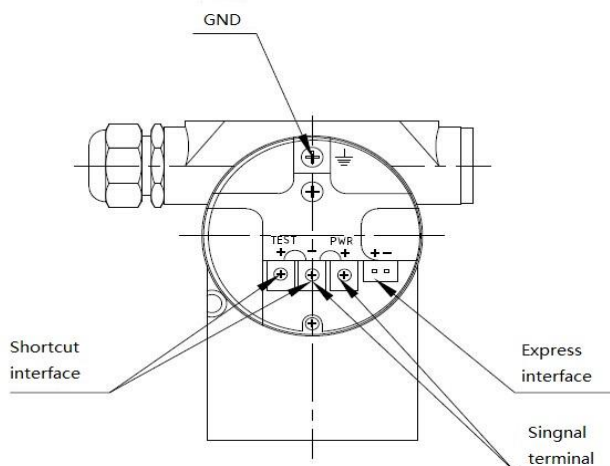
PIN	2-wire	3-wire
PWR+	P+	P+
PWR-	P-	P-
TEST+		S-

Ordering Guide

Model	Range	Output	Screw Thread	connection	Other requirement
PT124B-3501	---	---	---	---	---
Example: PT124B-3501-10bar-4/20mA(HART)-1/2NPT-M20*1.5 cable sealed					

◆ **Modify LCD display**

Normally display, hold down press S key, switch among current, main variable and percentage, release when exist the required parameter; Now, it maybe change each 3s, while exist the undesired variable, please repeat the former operation again.

◆ **Menu 2: Modify the units**

Normally display, hold down press Z key, and there will display "00000"twinkle in turn, while the rightmost 0 twinkle release the key, then press S key to change the digital to "00002",   press M key, the low left quarter display "2". Each press S key, low right quarter unit will change, till the required unit exist, then press M key to save.

◆ **Menu 3/4: Modify the range**

Normally display, hold down press Z key, and there will display "00000"twinkle in turn, while the rightmost 0 twinkle release the key, then press S key to change the digital to "00003", press M key, the low left quarter display "3". Press S key, the leftmost arrow twinkle, press Z key to shift, and press S key to change the digital. When the rightmost digit twinkles, press Z, the decimal all bright, then press S key to choose the decimal place. Finished above and press M, save the data and auto shift to the upper range value. (Remarks: If you need not adjust the lower range value, press M key skip while into menu "3", directly into menu "4", it till show "4" at the low left quarter, repeat above operation, press M key to save after changed the digital.

◆ **Menu 5: Modify the damping**

Normally display, hold down press Z key, and there will display "00000"twinkle in turn, while the rightmost 0 twinkle release the key, then press S key to change the digital to "00005", press M key, the low left quarter display "5", Press S key, the leftmost arrow twinkle, press Z key to shift, and press S key to change the digital. When the rightmost digit twinkles, press Z, the decimal all bright, then press S key to choose the decimal place. Finished above and press M, save the data and auto shift to Menu 6.

◆ **Menu 6: Main variable adjust zero**

Normally display, hold down pressure Z key, and there will display "00000"twinkle in turn, while the rightmost 0 twinkle release the key, then press S key to change the digital to "00006", press M key, the low left quarter display "6", Press S key, low right quarter switch between "NO "and "YES", when display "YES", press M key to finish.

◆ **Menu 7: Shortcut key:**

Normally display, press M+Z key together, and keep 5s. while the low left quarter display "6", other operation the same as above.

◆ **Menu 8: Output function**

Normally display, hold down press Z key, and there will display "00000"twinkle in turn, while the rightmost 0 twinkle release the key, then press S key to change the digital to "00008", press M key, the low left quarter display "8", Press S key, low right quarter shift display between " LIN linearity" and "SQRT current prescribing", press M key to save when exist the required function.

◆ Menu 9/10: Calibrate upper-lower limit

Normally display, hold down press Z key, and there will display "00000"twinkle in turn, while the rightmost 0 twinkle release the key, then press S key to change the digital to "00009", press M key, the low left quarter display "9", Press S key, the leftmost arrow twinkle and into calibrate, add the upper limit pressure, press Z key to shift, and press S key to change the digital, When the rightmost digit twinkles, press Z, the decimal all bright, then press S key to choose the decimal place, and press M to save the data and shift to calibrated upper range. The moment, the low left quarter display "10", add the lower limit pressure, repeat above operation, input the pressure and press M to save.

Notice:

The function require menu 9 and 10 calibrated at the same time, and the upper limit pressure should be different from the lower limit pressure!

◆ Menu 11: Arbitrary point migration

Automatic enter after finished Menu 10, refer to the setting operation of Menu 9/10, set the required migration value (current pressure value), press M key to save the data.

Notice:

1, In whichever of Menu 2-3-4-5-6-8, whenever you press M key, it will shift to next menu, it will save if there are changes. The next menu of Menu 8 is 0 means normally display; it will exit after 3s if there is no operation, and normal display. And it will re-circulate menu 2-3-4-5-6-8 if there is operation within 3s.

2, Menu 9-10-11 should operate by professionals, so it is not in the circulate above; only can enter from "00009".