

**PT115X/PT125X/PT135X Series**

4-digit display, explosion-proof housing  
Relay output is optional  
4-20mA+Hart output



Certification :

**ISO9001-2015**



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## 1. Introduction

PT115X/PT125X/PT135Xseries is an intelligent 4...20 mA Hart protocol melt pressure transmitter.Special film and high temperature wear-resistant coating make it work normally at 400 C° high temperature, using the standard threaded connection to install, full 4-digit display, relay output is optional. High stability and long service life. The intrinsically safe high temperature melt pressure transmitter is designed for hazardous explosion-proof areas and remote control, and the wireless module can be customized.

## 2. Application

PT115X/PT125X/PT135X melt pressure transmitter can be used in the injection molding industry and chemical fiber high temperature environment to measure the pressure of the

## 3. Product Features

Special lamination film coating	IP65 protection degree
Exia II CT4、 Exia II CT6	Explosion-proof housing

## 4. Technical Data

Pressure Range	0 ~ 35bar;0 ~ 2000bar
Accuracy	±0.5%、±0.25%
Over load Pressure	1.5FSO
Bridge Resistance	350ΩWheatstone bridge
Power	12 ~ 30Vdc (Standard24Vdc)
Output Signal	4 ~ 20mA+hart
Load Resistance (Ω)	< (U-12) /0.02
Explosion-proof Grade	Exia II CT4、Exia II CT6
Process Connection	1/2-20UNF、Flange connection
Insulation Resistance (50Vdc)	1000MΩ
Diaphragm Material	17-4PH、inconel718、C276
Diaphragm max temp	400C°
Film Material	TiAlN
E-connection	M20*1.5、1/2NPT Waterproof connector
Electrical Environment temp	-20C° ~ 85C°
Thermocouple	J Type,E Type,K Type,pt100
Protection degree	IP65
Installation torque	< 30Nm
Filling Material	Mercury filling

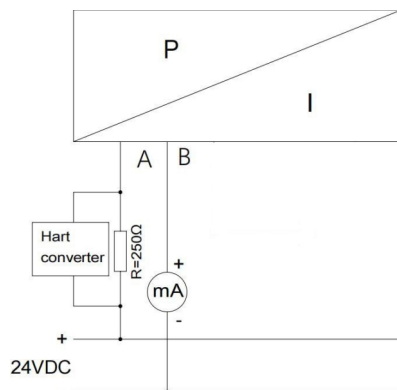
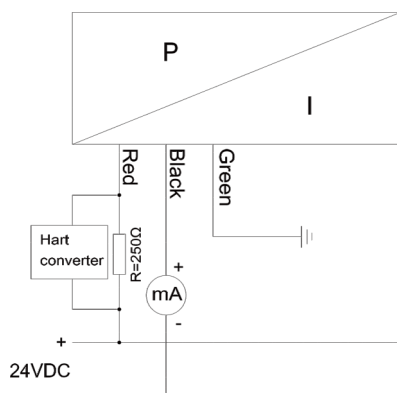


## 6. Electrical connection & Debugging

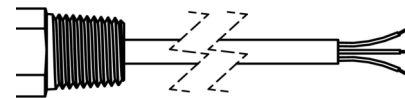
After the pressure transmitter has been installed on the pipeline, the electrical connection must be made in accordance with the connection method shown in the wiring diagram below.

The PT115X/PT125X/PT135X series is equipped with an integrated amplifier circuit. The calibration process must be carried out when the pipeline is heated and the pressure is zero. The zero point is cleared by the button on the display panel, or it can be realized by the Hart converter. In Hart converter, a 250Ω resistor is connected in series on the power line, and the two ends of the converter are connected to the two ends of the resistor respectively (see the wiring diagram below).

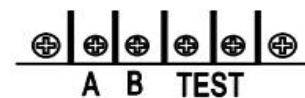
4...20mA+Hart (2-wire)



Connector type: direct outlet



Function	Wire Color
Power +	Red
Power -	Black
Ground	Green



PIN	Function	Wire Color
A	Power+	Red
B	Signal +	Black

## 7. Ordering Guide

Serie No	PT	X	-	X	-	X	-	X	-	X	-	X	-	X	-	X
Product Type	Rigid Stem	115FX														
	Rigid+flexible stem	125FX														
	With thermocouple	135FX														
Pressure Range	3.5MPa 35bar 500psi			5C												
	10MPa 100bar 1500psi			1.5M												
	20MPa 200bar 3000psi			3M												
	35MPa 350bar 5000psi			5M												
	50MPa 500bar 7500psi			7.5M												
	70MPa 700bar 10000psi			10M												
	100MPa 1000bar 15000psi			15M												
	200MPa 2000bar 30000psi			30M												
Process Connction	1/2-20UNF					1/2										
	M14×1.5					M14										
	M18×1.5					M18										
Rigid stem Length	6" (152mm)							6								
	9" (229mm)							9								
	12.5" (318mm)							12								
	15" (381mm)							15								
	18" (460mm)							18								
Flexible stem Length	18" (460mm)							/18								
	24" (610mm)							/24								
	30" (760mm)							/30								
Output Signal	4-20mA+hart										H					
Cable Length	No Cable										--					
	Leading wire "X" meters (Standard M20 waterproof connector)										Mx					
	8-pin aviation Connector (cross Gefran)										8P1					
Thermocouple	J Type										J					
	K Type										K					
	E Type										E					
	Pt100										RTD1					
Accuracy	0.50%										--					
	0.25%										2A					
Diaphragm	17-4PH(Standard)															--
	inconel718 (Anti-Abrasive)															I7
	C276 (Anti-corrosive)															C2

## 8. Installation & Removal

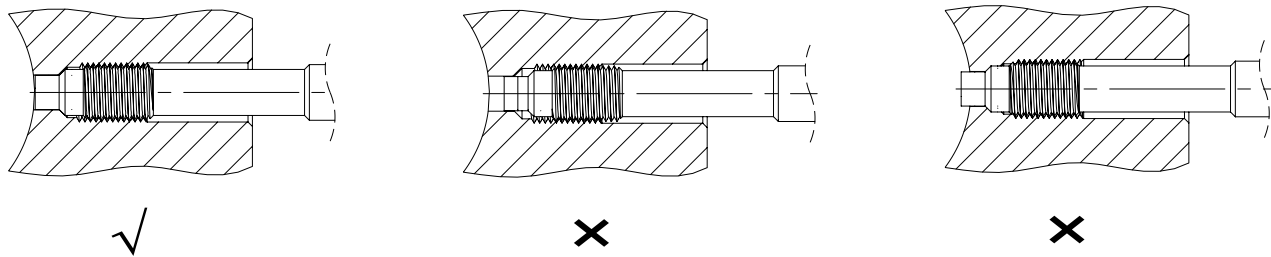
### Installation

When installing the pressure sensor, the sensor hole should be within the size requirement marked in following drawing and the assembly accuracy can be checked by testing bolts. Before installing the sensor, first clean the impurities in the hole and between the threads, then the thread of the sensor is coated with heat-resistant slurry, the screw teeth can be avoided.

The installation force is very important, the installation torque of the sensor can only act on the shaft (hexagon), do not apply any force to the head of the sensor. The housing should be kept away from high temperature areas.

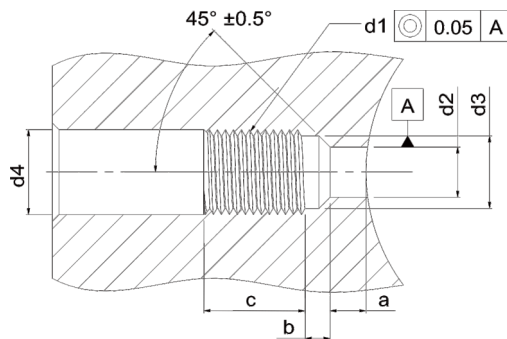
1/2-20 UNF /M14×1.5= Maximum starting torque : 40Nm

M18 x 1.5 =Maximum starting torque : 50 Nm



## Removal

The removal of the pressure transmitter must be done under heating conditions (plastic melting point). When removing the transmitter, note that the diaphragm has no contact pressure. The force to unload the transmitter must be applied only on the shaft (hexagon) and do not apply any force to the transmitter head



d1	M18X1.5	M14X1.5	1/2-20UNF-2A
d2	∅ 9.9 <sup>+0.1</sup>	∅ 7.9 <sup>+0.1</sup>	∅ 7.9 <sup>+0.1</sup>
d3	∅ 16.1 <sup>+0.1</sup>	∅ 11.7 <sup>+0.1</sup>	∅ 10.7 <sup>+0.1</sup>
d4	∅ 20	∅ 15	∅ 14
a	6.1 <sup>-0.1</sup>	5.7 <sup>-0.1</sup>	5.7 <sup>-0.1</sup>
b	4 <sup>-0.2</sup>	3.2 <sup>-0.2</sup>	3.2 <sup>-0.2</sup>
c	25	19	19

## 9. Sensors cleaning

In order to clean the diaphragm, the sealing surface and thread of the transmitter must have the same temperature as the melting point of the plastic. The diaphragm and sealing surface can be cleaned with soft cloth, and the thread and rigid rod can be cleaned with steel brush or copper brush. (Do not touch diaphragm surface with steel brush)

## 10. Transport and storage

PT115X/PT125X/PT135X pressure transmitter is usually packed separately. At the front thread of the rigid rod, the induction diaphragm is protected by a protective cap. This protective cap should be tightened at any time during storage, and only opened during installation.

Note: Mounting brackets, extension cables, connectors, cleaning kits, drill kits, dummy plug etc accessories, please contact with us.