

Peregrine
INSTRUMENTATION

PI PT-3020

Pressure transmitter
3020 GP Series



PEREGRINE ADDITIVES & LUBRICANTS CO.

PI PT-3020

PRESSURE TRANSMITTER

Principle

The PI PT-3020 is an intelligent remote pressure transmitter using advanced microprocessor technology with digital communication. The PI-GPT remote pressure transmitter is capable of differential pressure, gauge & absolute pressure, or level measurement. It uses advanced capacitance sensor technology (piezoresistive sensors for absolute pressure models), the PI PT-3020 remote pressure transmitter features self-diagnostic, field parameter adjustment, auto-zero and all industrial and standard capabilities with half the price. It is composed of differential pressure/pressure transmitter and the welding installation level flange, which can measure liquid, gas or steam flow as well as fluid density, level and pressure. Output options available include 4-20mA or 1-5VDC with HART protocol, Profibus, or foundation fieldbus. The PI PT-3020 smart pressure transmitter offers so many options that it can be configured for any application.

Features

- ▶ High accuracy, little temperature effect($\pm 0.15\%$ FS/10)
- ▶ 100:1 Turn-down
- ▶ Security lock-parameters
- ▶ Advanced diagnostics capabilities
- ▶ Large measuring range
- ▶ Software compensation
- ▶ Available in 316SS, Hastelloy C and other exotic materials
- ▶ Available in either Intrinsically Safe ExialICT4 or Explosion Proof ExdIICT6, ATEX Safety
- ▶ Auto-zero adjustment
- ▶ Analog 4~20 mA DC two wire linear output
- ▶ HART protocol, or foundation fieldbus

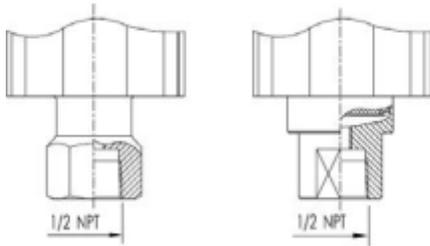


Specifications

▶ Measuring Range:	0~6kPa~60MPa (8700psi)	▶ Transmitter Housing:	Aluminum with epoxy resin coat
▶ Fluid:	liquid, gas and steam	▶ Approvals:	ExdIICT6 ExialICT4
▶ Ambient Temperature:	-30°C~85°C (-86°F~185°F) -20°C~65°C (-68°F~149°F) (Fluorine line)	▶ Output signal:	4 ~ 20 mA DC two wire/Hart
Drift (zero):	0.5%FS/50	▶ Working Voltage:	(12 ~ 36) VDC-Blind type (15 ~ 30) VDC-LCDtype
Drift (span):	0.7%FS/50	▶ Communications distance:	2 km when using CEV cable
▶ Accuracy grade:	0.05 grade, 0.075 grade, 0.2 grade. 0.5 grade	Load capacity:	below 0.22μF
▶ Turn-down:	100:1	Load induction:	below 3.3 mH
▶ Drift (Micro):	0.02% FS/year	Space with power line:	above 15 cm
Standard:	0.025% FS/year	Resolution:	0.05% of range
▶ Relative humidity:	0 100% RH	▶ Field indication:	LCD
▶ Start time:	2 seconds after power up	▶ Effect of environmental temperature	
▶ Storage temperature:	-50°C~85°C (-122°F~185°F)°C (NO display) -40°C~85°C (-104°F~185°F)°C (LCD display)	Zero drift:	0.5% FS/50°C (122°F)
▶ Damping time:	2s	Range drift:	0.7%FS/50°C (122°F)
▶ Process connection:	316LSS	▶ Effect of power voltage variation:	$\pm 0.005\%$ FS/V
▶ Filled fluid:	Silicon oil, fluorocarbon oil-option	▶ Protection:	IP67
▶ Isolating Diaphragm:	316LSS/Hastelloy C option etc.	▶ Weight:	3kg (6.61lb)

Process Connection

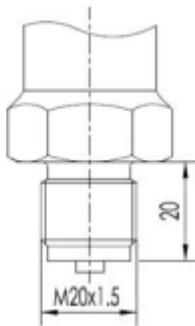
1/2" NPT Female thread - standard



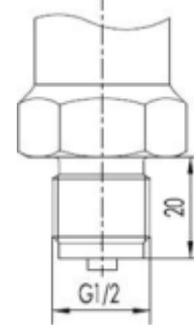
1/2" NPT Male thread



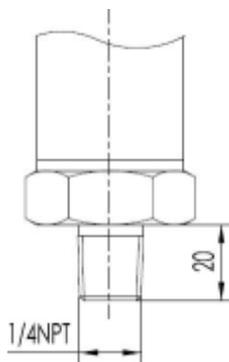
M20*1.5 Male thread



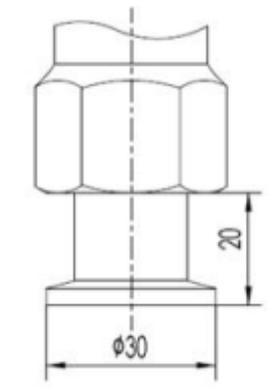
G 1/2" Male thread



1/4" NPT Male thread



Vacuum connection ISO2861





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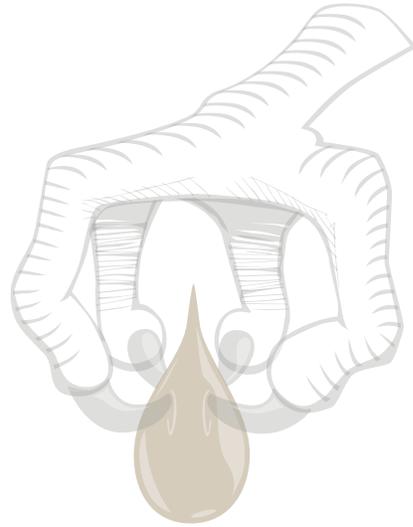
Please contact your Peregrine application engineer

You also need to provide the following information:

Type of fluid	We need the name of your fluid, including operating density and viscosity
Process Pressure & Temperature	Working temperature, pressure measure range and connection
Type of Electronics	Output and communication
Power requirements	We need the name of your pipe material

MODEL SELECTION GUIDE

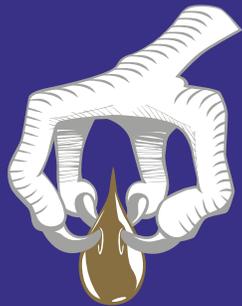
PI PT-3020 Series														
Example:PI PT-BA-GP-S-6-22-M8-NN-N-S-2-N														
PI PT-	**	**_	**_	**_	**_	**_	**_	**_	**_	**	**	**	**	Description
3020 type- intelligent	BA													Transmitter Type
Pressure transmitter		GP												Transmitter Type
4~20mA DC with key stroke setup				S										Output Signal
4~20mA DC with key stroke and HART				I										Output Signal
0~0.6kPa~6kPa / (0~6~60mbar)					3									Measuring range
0~2kPa~40kPa / (0~20~400mbar)					4									
0~2.5kPa~250kPa / (0~25~2500mbar)					5									
0~30kPa~3MPa / (0~0.3~30bar)					6									
0~0.1MPa~10MPa / (0~1~100bar)					7									
0~0.21MPa~21MPa / (0~2.1~210bar)					8									
0~0.4MPa~40MPa / (0~4~400 bar)					9									
0~0.6MPa~60MPa / (0~6~600 bar)					0									
Isolation diaphragm	Fill Fluid													Construction Material
316 SST	Silicon Oil				22									
Halloy C	Silicon Oil				23									
Other Material	Other Material				**									Display
No display						M1								
LCD display						M7								
Backlight LCD display						M8								
1/2" NPT female thread							NN							Install connection
1/2" NPT male thread							NM							
M20 X 1.5 male thread							MM							
G1/2 male thread							GM							
1/4" NPT male thread							C12							
Vacuum Coupling Radius Seal DIN 28403 KF16/ ISO 2861							VC							
None								N						Function options
O2 CLEAR								O						
Standard (without explosion proof)									S					Approval
NEPESI Intrinsic Safety Ex ia									I					
NEPESI Explosion Ex id									D					
ATEX Intrinsic Safety Ex ia									AI					
ATEX Isolation Safety Ex id									AD					
Standard (without explosion proof)									S					
0.2%										2				Accuracy
0.5%										5				
0.075% or 0.05% (Intelligent option)										7				
None											N			Install bracket
304SS- bending bracket for pipe installation (2"pipe)											1			
Carbon steel galvanized - bending bracket for pipe installation (2"pipe)											2			



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6318 Union Avenue, Shreveport, LA 71106

318.222.2224 • 318.222.7222 Fax

palube.com