Truflo[®] — PRD Series Digital LED Pressure Transmitter | Switch



Quick Start Manual

truflo

Read the user's manual carefully before starting to use the unit. Producer reserves the right to implement changes without prior notice.



Safety Information

- De-pressurize and vent system prior to installation or removal
- Confirm chemical compatibility before use
- DO NOT exceed maximum temperature or pressure specifications
- ALWAYS wear safety goggles or face-shield during installation and service
- DO NOT alter product construction

Warning | Caution | Danger

Indicates a potential hazard. Failure to follow all warnings may lead to equipment damage, injury, or death.

Note | Technical Notes

Highlights additional information or detailed procedure.



NO

Installation Instructions

Do not tighten by grasping the case of the transmitter as this may cause damage. Always pressure test connections for leaks with water prior to use on chemical service. The user shall ensure that the correct transmitter pressure range and the correct materials of construction are selected.



Personal Protective Equipment (PPE)

Always utilize the most appropriate PPE during installation and service of Truflo products.



Pressurized System Warning

Sensor may be under pressure. Take caution to vent system prior to installation or removal. Failure to do so may result in equipment damage and serious injury.

Please ensure that the Instruments are not to be subject to water hammer or pressure spikes! Always Pressure Test System with H2O Prior to Initial Start-Up

Before Before installation be certain the appropriate instrument has been selected considering operating pressure, full scale pressure, wetted material requirements, media compatibility, operating temperature, vibration, pulsation, desired accuracy and any other instrument component related to the service application including the potential need for protective attachments and/ or special installation requirements. Failure to do so could result in equipment damage, failure and/or personal injury. Ensure only qualified personnel personnel are permitted to install and maintain this instrument.



Pressurize System Warning

Sensor may be under pressure, take caution to vent system prior to installation or removal. Failure to do so may result in equipment damage and/or serious injury.



Please Ensure Full Pipe

PRD Series can be installed in a horizontal or vertical direction.



Technical Specifications

General		
Mounting	Direct Mount Bottom Connection	
Process Connection	1/2" MNPT / FNPT (PP / PVDF) 1/4" MNPT (316SS)	
Pressure Sensor	14 20 34 54 *Consult Factory for Levels > 54 ft	
Measured Fluids	H ₂ O Chemical Liquids Gases	
Applied Pressure	-40°F to 275°F -40°C to 125°C	
Overload Pressure	200% of Maximum Pressure Range	
Burst Pressure	300% of Maximum Pressure Range	
Material	PP PVDF 316 SS	
Overpressure Psi	210 290 290 380	
Pressure Units	Psi Bar KPa Kg/cm²	
Display	0~999 Green Red	
Thermal Drift	SS316L : ± 0.05% F.S./°C Ceramic : ± 0.1% F.S./°C	
Protection Class	IP64	
Electrical		
Power Supply	10-30 VDC	
Current Consumption	50mA max.	
Output		
Power Supply	10-30 VDC	
Output	4-20mA + Two (2) 3 amp Relays NPN PNP	
Performance		
Accuracy	Normal Type : ± 1.0% F.S. Precision Type : ± 0.25% F.S.	
Repeatability	SS316L : ≤± 0.3% F.S. Max. Ceramic : ≤± 1.0% F.S. Max.	
Standard & Approvals		
CE FCC RoHS Compliant		

Wiring

M12 Connection (no Internal wiring required)

Terminal	Description	Color
1	+ 10~30 VDC	Brown
2	Relay 2	White
3	0V	Blue
4	Relay 1	Black
5	Com	Grey
6	+mA or +V	Yellow





Product Introduction



Display Features

Alarm Status	No Alarm	Alarm 1 Alarm 2 ON
Display	Green	Red
Relay Set Points	Press SET (-) 5 seconds	
Function Setting	Press 科 🕩 5 seconds	
Press SET X 2 to Load the Setting Value and to proceed to next setting		
Press and Hold the set key, while tapping the 🚬 key to DECREASE the Setting Value, Press 🌂 key to INCREASE the Setting Value.		



Corrosion-Free Instrumentation Equipment[™]

Programming

SET Select / Save / Continue 😽 Change Digit Value

Steps	Display	Range	Description
#1 Press and Hold SET Press HOLD			Current Pressure Value
اللہ 5 SEC #2 Lock Setting Press SET X 2	198	0 - F	LK.9 = Settable Press 💦 to change values
#3 Pressure Unit Selection Press SET X 2	u£.8	0 - 3	ut.0 = Bar ut.1 = Kg/cm2 ut.2 = Psi (Default) ut.3 = KPa
#4 Decimal Point Press SET X 2	89.8	0 - 2	dP.0 = No Decimal Point dP.1 = 1 Decimal Point dP.2 = 2 Decimal Point
#5 Response Time Press SET X 2	- E.B	0 - 9	Press 🛃 to change values
#6 Alarm Mode Selection Press SET X 2	868	0 - 4	At.1 = S1 At.2 = S2 At.3 = S1 & S2 Refer to Alarm Mode
#7 Alarm Delay Mode Press SET X 2	dn.B	0 - 2	dn.0 = Power ON Delay dn.1 = Alarm ON Delay dn.2 = Power ON + Alarm ON delay
#8 Alarm Delay Time Press SET X 2	8.88	0 - 99	Delay Time (Sec.)

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Alarm Settings

SET Select / Save / Continue 🙀 Change Digit Value

Steps	Display	Range	Description
#1 → Home Screen Press SET Hold (-) → 5 SEC	888		Current Pressure Value
Harm AL1 Setting		0 - 999	Set Point for Relay 1
#3 Alarm AL2 Setting Press SET X 2		0 - 999	Set Point for Relay 2 **NOTE : AL2 must be set higher than AL1; If AL2 ≤ AL1, PV will display Error while press SET key
#4 Alarm Hysteresis Setting Press SET X 2	H.8 8	0 - 99	Program Hysteresis of Relay Output **Hysteresis is a buffer around the Programmed Set Point

Alarm Mode Settings

Mode	Description		
At.0	No Alarm		
At.1	R1 ON (AL1-H) AL1	AL2 (AL2+H)	
	$CV \ge (AL1) \longrightarrow R1/AL1 \text{ ON}$; $CV < (AL1 - H) \longrightarrow R1/AL1 \text{ OFF}$	$CV \le (AL2) \longrightarrow R2/AL2 \text{ ON }$; $CV > (AL2+H) \longrightarrow R2/AL2 \text{ OFF}$	
At.2	R1 ON (AL1-H) AL1	R2 ON AL2 (AL2+H)	
	$CV < (AL1 - H) \rightarrow R1/AL1 $ ON ; $CV ≥ AL1 \rightarrow R1/AL1 $ OFF	$CV > (AL2 + H) \rightarrow R2/AL2 \text{ ON }; CV \leq AL2 \rightarrow R2/AL2 \text{ OFF}$	
At.3	R1 ON (AL1-H) AL1	(AL2-H) AL2	
	$CV ≥ AL1 \longrightarrow R1/AL1 \text{ OFF}$; $CV < (AL1 - H) \longrightarrow R1/AL1 \text{ ON}$	$CV \ge AL2 \longrightarrow R2/AL2 \text{ OFF}$; $CV < (AL2 - H) \longrightarrow R2/AL2 \text{ ON}$	
At.4	R1 ON	R2 ON	
	(AL1-H) AL1	(AL2-H) AL2	
	$CV \ge (AL1) \longrightarrow R1/AL1 \text{ ON}$; $CV < (AL1 - H) \longrightarrow R1/AL1 \text{ OFF}$	$CV ≥ AL2 \rightarrow R2/AL2 \text{ ON }$; $CV < (AL2 - H) \rightarrow R2/AL2 \text{ OFF}$	



Dimensions (mm)





Model Selection

PRD — 3 Digit Pressure Meter			
Size	Part Number	Material	
½" MNPT	PRD-X-PP-M-X	PP	
½" MNPT	PRD-X-PF-M-X	PVDF	
₩ MNPT	PRD-X-SS-M-X	316SS	
½" FNPT	PRD-X-PP-F-X	PP	
½" FNPT	PRD-X-PF-F-X	PVDF	

X = Pressure Range

N01 ► -14.5 - 0.0 Psi	001 ►	0.0 - 14.5 Psi
C01 ► -14.5 - 14.5 Psi	010 ►	0.0 - 145.0 Psi
P06 ► 0.0 - 8.7 Psi	030 ⊾	0.0 - 435.0 Psi (SS Only)

2x 3A Relays (std) — Add suffix "-P" for PNP, "-N" for NPN



Warranty, Returns and Limitations

Warranty

Icon Process Controls Ltd warrants to the original purchaser of its products that such products will be free from defects in material and workmanship under normal use and service in accordance with instructions furnished by **Icon Process Controls Ltd** for a period of one year from the date of sale of such products. **Icon Process Controls Ltd** obligation under this warranty is solely and exclusively limited to the repair or replacement, at Icon Process Controls Ltd option, of the products or components, which **Icon Process Controls Ltd** examination determines to its satisfaction to be defective in material or workmanship within the warranty period. **Icon Process Controls Ltd** must be notified pursuant to the instructions below of any claim under this warranty within thirty (30) days of any claimed lack of conformity of the product. Any product provided as a replacement under this warranty will be warranted for the one year from the date of replacement.

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Limitations

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If any portion of this warranty is held to be invalid or unenforceable for any reason, such finding will not invalidate any other provision of this warranty.

For additional product documentation and technical support visit:

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