

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



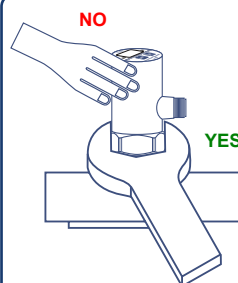
Warning | Caution | Danger

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.



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 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 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.

TruFlo® — PRD Series

Digital LED Pressure Transmitter | Switch

Technical Specifications

General	
Mounting	Direct Mount Bottom Connection
Process Connection	½" MNPT / FNPT (PP / PVDF) ¼" 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/cm ²
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)

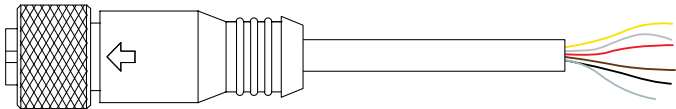
Terminal	Description	Color
1	+ 10~30 VDC	Brown
2	Relay 2	White
3	0V	Blue
4	Relay 1	Black
5	Com	Grey
6	+mA or +V	Yellow



PRD M12 Male



M12 Female Cable



CON[™]
PROCESS CONTROLS

Truflor® — PRD Series

Digital LED Pressure Transmitter | Switch

Programming



Select / Save / Continue



Change Digit Value

Steps	Display	Range	Description
#1 Press and Hold SET Press HOLD 5 SEC			Current Pressure Value
#2 Lock Setting Press SET X 2		0 - F	LK.9 = Settable Press to change values
#3 Pressure Unit Selection Press SET X 2		0 - 3	ut.0 = Bar ut.1 = Kg/cm2 ut.2 = Psi (Default) ut.3 = KPa
#4 Decimal Point Press SET X 2		0 - 2	dP.0 = No Decimal Point dP.1 = 1 Decimal Point dP.2 = 2 Decimal Point
#5 Response Time Press SET X 2		0 - 9	Press to change values
#6 Alarm Mode Selection Press SET X 2		0 - 4	At.1 = S1 At.2 = S2 At.3 = S1 & S2 Refer to Alarm Mode
#7 Alarm Delay Mode Press SET X 2		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		0 - 99	Delay Time (Sec.)

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Digital LED Pressure Transmitter | Switch

Alarm Settings



Select / Save / Continue



Change Digit Value

Steps	Display	Range	Description
#1 Home Screen Press Hold 5 SEC			Current Pressure Value
#2 Alarm AL1 Setting Press X 2		0 - 999	Set Point for Relay 1
#3 Alarm AL2 Setting Press 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 X 2		0 - 99	Program Hysteresis of Relay Output **Hysteresis is a buffer around the Programmed Set Point

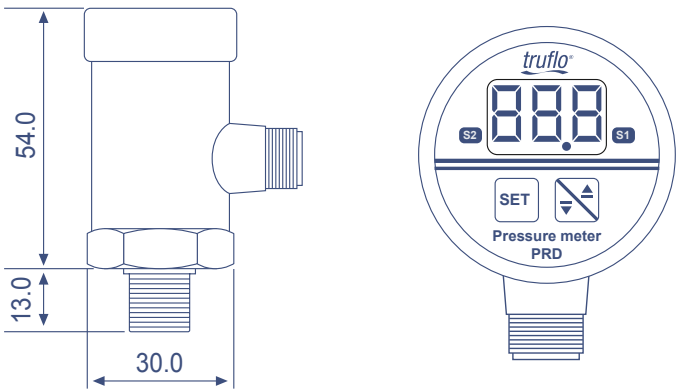
Alarm Mode Settings

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

Truflo® — PRD Series

Digital LED Pressure Transmitter | Switch

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
¼" 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
C1 ▶ -14.5 - 14.5 Psi
10 ▶ 0.0 - 145.0 Psi
30 ▶ 0.0 - 435.0 Psi (SS Only)

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

Add suffix "-PR" for Precision Model (±0.25% accuracy)

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