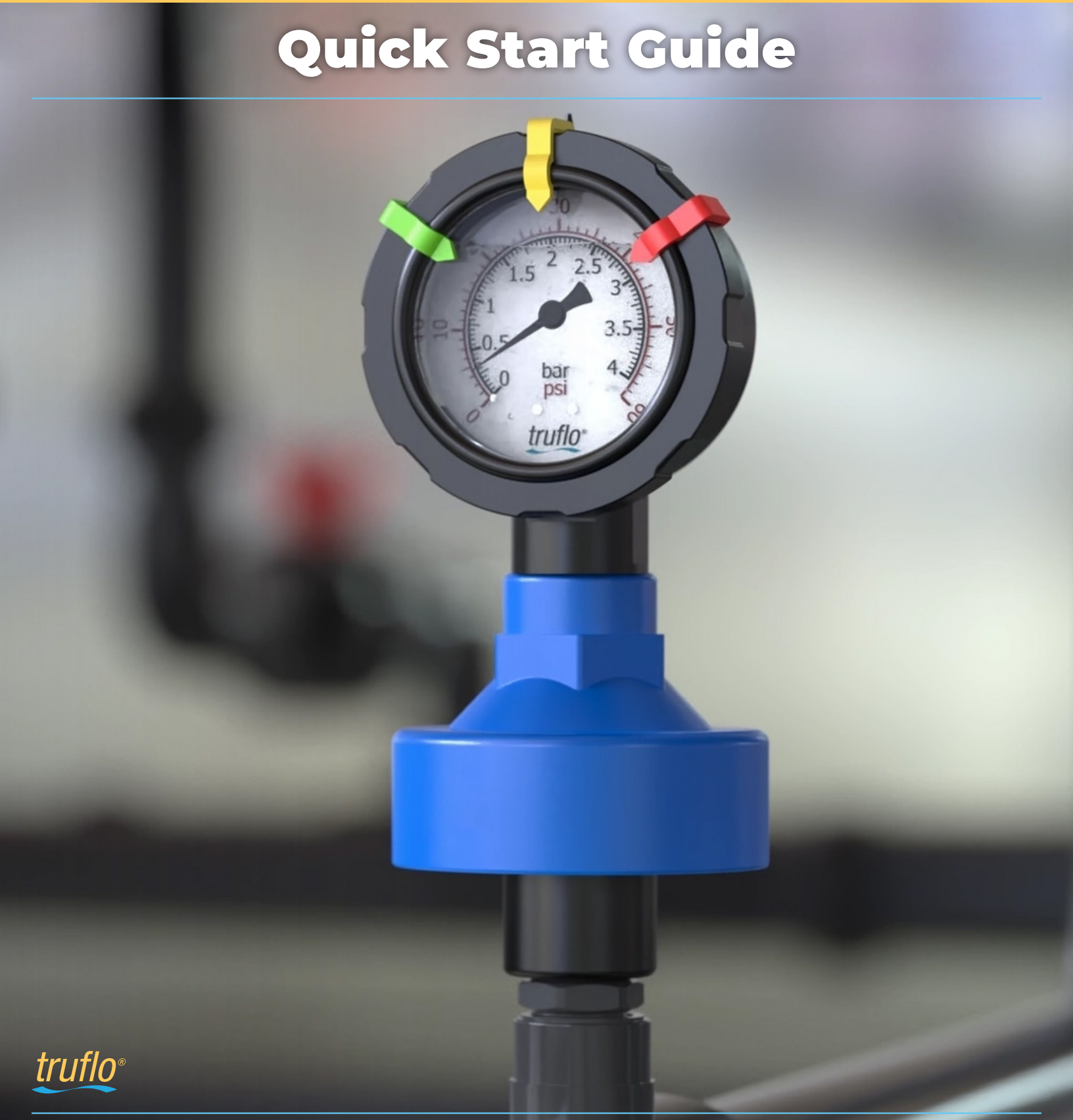
Quick Start Guide



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/or 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.

Personal Protective Equipment (PPE)

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

Note | Technical Notes

Highlights additional information or detailed procedure.

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/or 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, and desired accuracy. 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.

WARNING

Intended Use

The GI Isolator is used for Transmitting Media Pressure to a Pressure Gauge or Pressure Transmitter.

Only operate the GI Isolator if it is in perfect technical condition and only use it as intended:

- Use the GI Series Isolator to protect the gauge/instrument from the process media
- Use the GI Series Isolator with an approved pressure gauge
- Use the GI Series Isolator only with solid free media
- Adhere to the operating limits
- Install the GI Series Isolator in the following manner:
  - The Process Connection is connected to the pressurized pipe - See Fig. 1 (Item #4)
  - The Pressure Gauge/Instrument is mounted into the Upper Bonnet - See Fig. 1 (Item # 1)

The technical data listed in the current data sheet are engaging and must be complied with. If the data sheet is not available, please order or download it from our homepage (www.iconprocon.com).

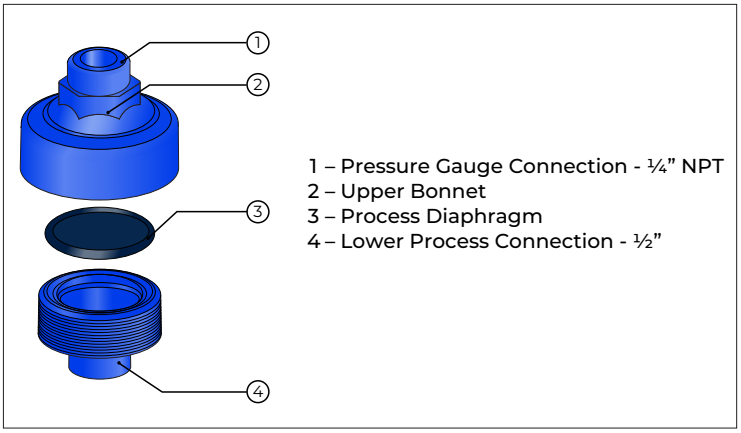


Fig. 1. Layout and Function

Installing and Connection

Before installation in the pipeline, the GI Series Isolator must be filled and the pressure gauge must be filled and mounted. Follow the section drawing for assembly (Fig. 2, Page 4).

Use the recommended non-compressible fluid.

Filling the GI Series Isolator

1. Fill upper chamber (2) with suitable non-compressible fluid. Ensure there are no air bubbles trapped inside chamber.

Damage to the Process Diaphragm Due to Lack of Non-compressible Fluid!

- Before commissioning, make sure that the GI Series isolator is sufficiently filled with non-compressible fluid.

Damage to the Process Diaphragm Using Compressed Air!

- Apply Compressed Air to the fitting only for Low Pressure Under 20 Psi. When doing so, do not exceed the permissible pressure of the pressure gauge that is used.

2. Screw the Pressure Gauge (1) Clockwise into the Upper Chamber (2).
3. Rotate the Fitting until the Pressure Gauge (1) is Facing Vertically Downwards.
4. Connect the Compressed Air supply to the Process Connection (Bottom Section) (6).
5. Switch on the Compressed Air Supply and Apply Compressed Air to the Isolator for a Short Period (Low Pressure) of time. This will ensure the Non-Compressible Fluid is Forced into the Bourdon Tube.
6. Switch Off the Compressed Air Supply and Carefully Detach it from the Isolator .
7. Rotate the Isolator until the Pressure Gauge (1) is in the Upright Position.
8. Unscrew the Pressure Gauge (1) from the Upper Chamber (2).
9. Check the Fill Level in the Upper Chamber (2) and Depending on the Liquid Level proceed as follows:
   - If the fill level is Sufficient - Liquid Level at Top of Upper Chamber - Continue with Process.
   - If the Fill Level is Too low: Top Up the non-compressible fluid (4) in the Upper Chamber (2). Repeat Steps 2-10.
10. Check the Thread Seal to ensure there are no leaks.
    - G Type or BSP: Ensure that the O-ring Seal in Located within the Upper Chamber (See Item 3) .
    - NPT Thread: If Necessary Wrap Sealing Tape Around the Thread of the Pressure Gauge (1).
11. Screw the Pressure Gauge Clockwise into the Upper Chamber (2).
12. Ensure the Pressure Gauge is Zeroed. The Isolator is Now Ready to be Installed.

Installing Isolator into Piping System

- The Pressure Gauge Must Be Mounted on the Isolator
- The Isolator Must Be Filled with the Non-compressible Fluid.
- The Bourdon Tube of the Pressure Gauge Must Be Filled with the Non-compressible Fluid.

Risk of Injury or Environmental Damage from Liquid Media!

Leak due to faulty installation.

- Installation should only be performed by technicians who have been properly trained.

1. Align the Isolator together with the pressure gauge, preferably in a upwards position.
2. Install the Isolator into Piping System - Perform Hydrostatic Test.

Performing the Hydrostatic Test - Mandatory

Pressure Test using Neutral Medium, e.g. Water.

1. Pressurize the fitting
   - Test pressure < Permissible System Pressure
2. Check the GI Series for leaks

PVC PP PVDF PTFE RoHS Compliant CE

Technical Specifications

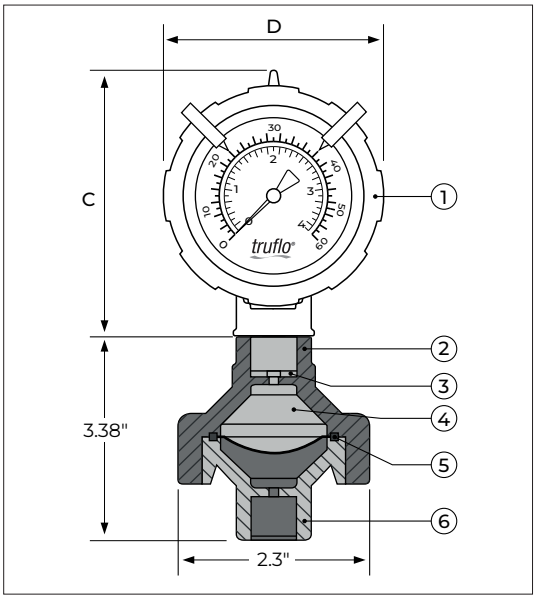


Fig. 2. Section Drawing

No.	Part	Materials
1	Pressure Gauge	PP | 316 SS
2	Bonnet	PP | PVDF
3	O-Ring	FPM (G-Thread Only)
4	Liquid Fill	Glycerin | Silicone
5	Diaphragm	PTFE Teflon® Bonded
6	Lower Chamber	PVC | PP PVDF

Optional Gauges

Truflo® offers the gauges listed below mounted to isolator and pre-filled with glycerin, silicone or special fluid for chlorine applications. Truflo® gauges have a PP plastic housing and the cases are normally filled with either glycerin or silicone for corrosion resistance and dampening.

Truflo® GI Series gauge isolators are not recommended for vacuum applications.

Other Options

Flanged Process Connections.

Working Pressure (Psi) – Non Shock

Material	10 – 20°C 50 – 68°F	30°C 86°F	40°C 104°F	50°C 122°F	60°C 140°F	70°C 158°F	80°C 176°F	90°C 194°F	100°C 212°F	120°C 248°F
PVC	150	100	80	45	15	-	-	-	-	-
PP	150	125	100	80	65	45	-	-	-	-
PVDF	150	150	150	125	105	85	70	60	45	30

Temperature Ranges

PVC : 0 to 60°C (32 to 140°F) | **PP** : 10 to 80°C (50 to 176°F) | **PVDF** : –30 to 120°C (–22 to 248°F)

Dimensions

Gauge Diameter	Item No.	Gauge Connection	Housing	Bourdon Tube	Window	Accuracy	Dimension	
							C	D (max)
2-½"	OBS-xx	¼"	PP	316 SS	Polycarbonate	±0.75% of span	3.6	3.1
2-½" Double-Sided	OBS-DGOxx-	¼"	PP	316 SS	Polycarbonate	±0.75% of span	3.6	3.1
2-½" Back Mount	OBS--xx-	¼"	PP	316 SS	Polycarbonate	±0.75% of span	3.6	3.1
4½"	OBS4--xx-	¼"	PP	316 SS	Polycarbonate	±0.5% of span	6.0	6.0

"xx" denotes the maximum gauge pressure (i.e. 30 / 60 / 100 / 160 Psi). Other Ranges are Available.

Upper Chamber Liquid Fill

Non-compressible Fluid
Glycol (ethylene glycol) Glycerin | Silicone
Antifreeze
De-mineralized water / Halo Carbon

Tightening Torques

Description	Torque
Pressure Gauge	22 ft-lbs
Process Connection	Hand-Tight