

## PROINERT® PRESSURE GAUGE W/ LOW PRESSURE SWITCH - IG-541

### DESCRIPTION

Each Fike ProInert Cylinder is equipped with a Pressure Gauge and Switch Assembly to indicate a visual pressure indication at the cylinder, as well as continuous cylinder pressure monitoring at the control panel. The Pressure Gauge scale is calibrated to show the actual pressure, as well as a color-coded acceptable operating range, under-pressure range, and over-pressure range. The low pressure switch is continuously monitoring the container pressure for a low-pressure condition. If the pressure inside the container drops below the set pressure, the switch contacts will transfer and invoke a “supervisory” indication on the control panel. The pressure gauge/low pressure switch assembly can be installed, removed/replaced on a charged container without removing the agent first.



### SPECIFICATIONS

Assembly Part Number:	02-12561 (200 bar) 02-12560 (300 bar)
Temperature Limits:	-40°C to +60°C
Protection Rating:	IP65
Contact Rating:	Single pole, 4.5 to 24VDC/VAC, 5 to 100 mA; 3 W
Pressure Connection:	M10 x 1
Electrical Connection:	DIN 43650 Compact (Hirshmann).
Wire Leads:	(2) 18 gauge x 0.3 m long
Pressure Setting:	Contacts open @ 240 bar (decreasing) 300 bar cylinder @ 160 bar (decreasing) 200 bar cylinder
Body Material:	Stainless Steel

### APPROVALS

- VdS

### INSTALLATION / REPLACEMENT

The following procedure is used to install and/or replace the pressure gauge with low pressure switch on a charged cylinder. This device can be installed in the fill port on a container that is charged by using the following steps:

**IMPORTANT NOTE:** Cylinder must be securely mounted in the cylinder racking or cylinder strap before installing pressure gauge.

Step 1: Prior to Assembly; lubricate the Pressure Gauge Assembly O-Ring (P/N 02-10674) with Molycoat 55 or equal. Use care not to get lubricant into pressure port.

**NOTES:** “DO NOT” apply Teflon Tape to Pressure Gauge Adaptor threads. “DO NOT” cross thread the Pressure Gauge Assembly during installation.

Step 2: Remove and retain Plug from pressure gauge port.

- Step 3: Screw in the Pressure Gauge Assembly (Hand Tight) until resistance is felt. Use locking pliers or wrench to screw in the Pressure Gauge Assembly until it bottoms out. This will open an internal check valve and pressurize the gauge.
- Step 4: To align the Pressure Gauge, un-screw Pressure Gauge Assembly up to 1 turn.
- Step 5: Leak check around the pressure gauge port using Snoop leak test fluid or equivalent.  
 If a leak is detected; remove the Pressure Gauge Assembly from the ProInert valve and remove the lubricant and contaminants from the O-Ring, threads and valve port using isopropyl alcohol and a softclean cloth. Lubricate the O-Ring with Molycoat 55 or equal and reinstall. Leak test around the pressure gauge port. If a leak is detected; remove the Pressure Gauge Assembly from the ProInert valve, remove the O-Ring, install a new O-Ring, lubricate the O-ring with Molycoat 55 or equal, install the Pressure Gauge Assembly in the ProInert valve, and leak test around the pressure gauge port.

**WARNING:** When removing the Pressure Gauge Assembly from a pressurized ProInert cylinder, a “pop” sound will occur. This is the result of a minor amount of gas being trapped in the pressure gauge port; this is a normal occurrence. If a pressure leak continues after backing-off the Pressure Gauge Adaptor five turns (O-Ring is visible), the Schrader core did not reseal, do not remove the Pressure Gauge Assembly, reinstall and follow the proper procedure to empty cylinder and replace Schrader core.

#### WIRING DIAGRAM – LOW PRESSURE SWITCH

The Pressure Gauge w/ LPS should be wired into a supervised circuit in the control panel used to provide a supervisory signal if the container pressure drops. The switch is wired as a normally open contact (closed under pressure). (see Figure 1)

**NOTE:** Refer to the Installation, Operation & Maintenance for the control panel being used for specific wiring criteria.

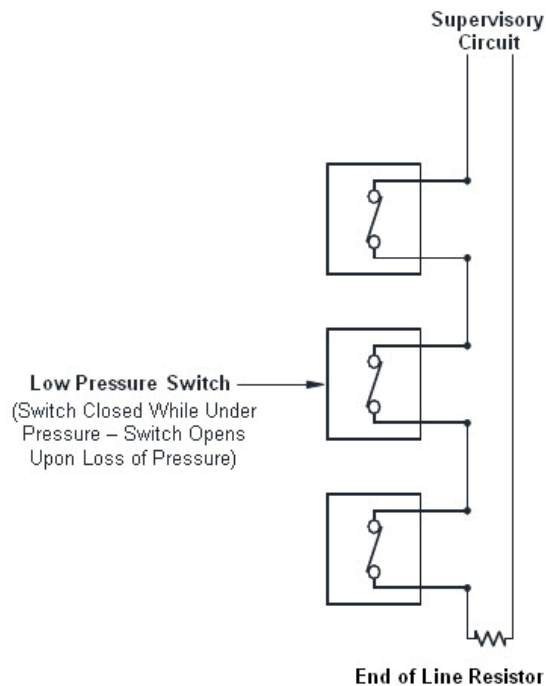
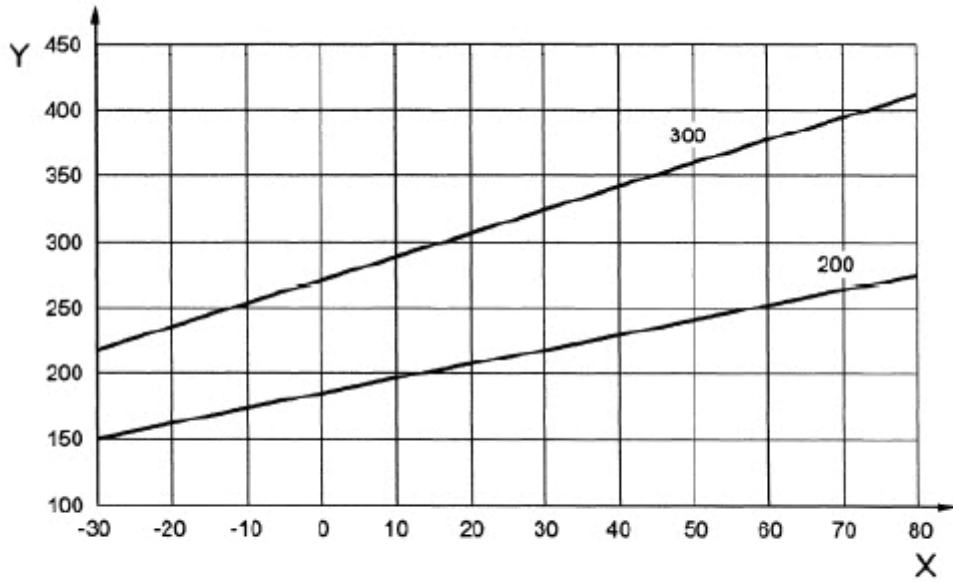


FIGURE 1

The container pressure needs to be checked as a part of the installation procedure. They should read 200 bar or 300 bar at 15°C. For temperatures other than 15°C, reference Temperature vs. Pressure Chart.

IG-541 PRESSURE VS. TEMPERATURE CHART FILLING  
REFERENCE TEMPERATURE 15°C



X = Temperature. °C

Y = Pressure, Bar



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