

QUALITROL® 070/351

Pressure-vacuum bleeders



Accurate and reliable pressure control

- Rugged design using durable materials
- Versatile bleeders that work for many applications

Product Summary

Description Designed to balance pressure and vacuum conditions within a sealed vessel by releasing or admitting air and gas. If internal pressure reaches the pre-determined setting, valve will exhaust gas from the tank. If vacuum inside vessel becomes too great, the valve will admit air into the tank.

Application For pressure balancing on transformers, conservator tanks, load tap changers and other related electrical apparatus. This valve is designed for the gas space of nitrogen blanket transformers or air in conservator tanks.



QUALITROL®
Defining Reliability

QUALITROL® 070/351 pressure-vacuum bleeders

Accurate and reliable pressure control

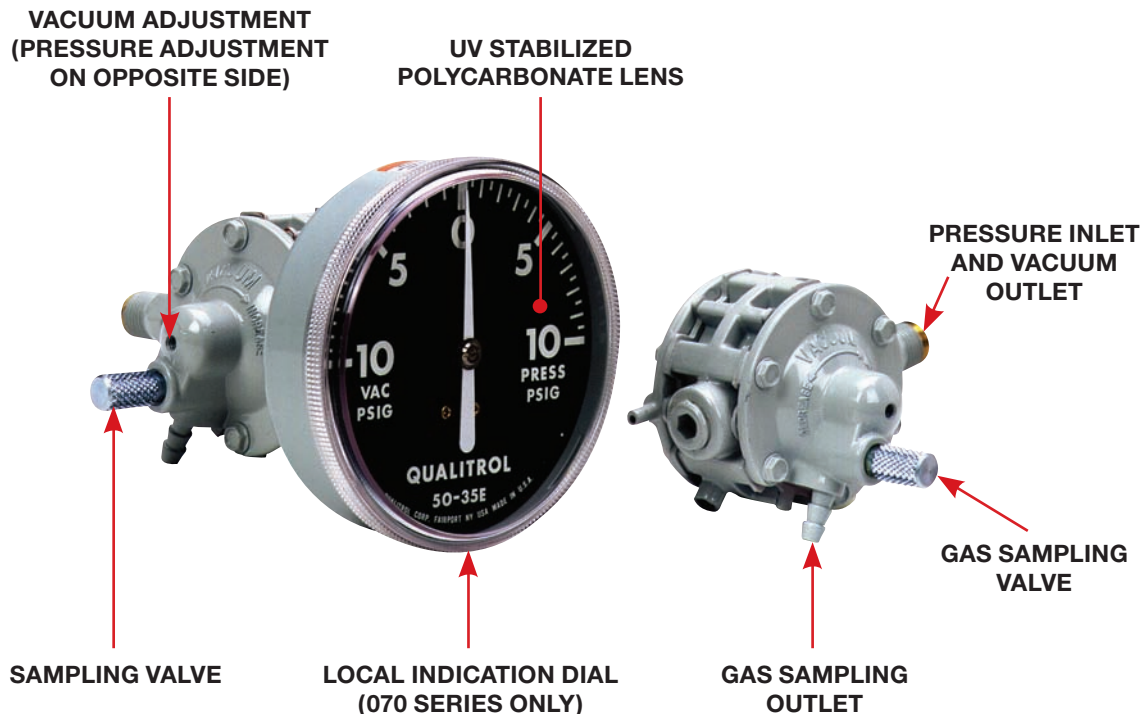
- All bleeder models meet or exceed ANSI standards for transformers
- Repeatability of bleeder is ± 0.5 psig on both pressure and vacuum setting

Rugged design using durable materials

- Tough construction meant for indoor or outdoor use
- Coated with a thermosetting powder coat finish to withstand rough environmental conditions
- Screened openings inhibit entry of contaminants

Versatile bleeders that work for many applications

- Standard models available for top, side or bottom mounting
- Indicator gauge can be added for simplified installation on vessel
- Wide range of adjustable pressure/ vacuum settings
- An integrated sampling valve allows gas samples to be drawn off for analysis





Bleeder valve operation

1. When the vessel is operating within the limits set on the bleeder, the pressure distribution is as shown in Figure 1.
2. When the vessel pressure exceeds the spring setting, a force is exerted on diaphragm "A", overcoming the spring load and lifting valve seat "1". This allows pressure to escape to atmosphere via valve "1" as shown in Figure 2.
3. When the vessel is operating under vacuum conditions, the negative pressure creates a force on diaphragm "B" opening valve seat "2". This allows air to bleed into the vessel and limit the vacuum as shown in Figure 3.

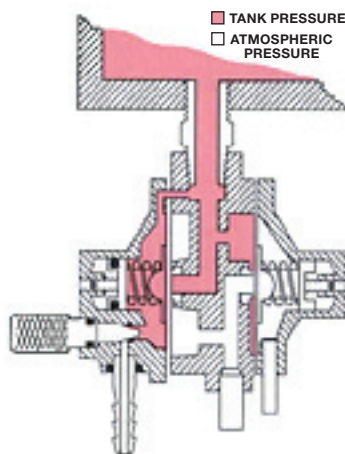


FIGURE 1
TANK PRESSURE
NORMAL

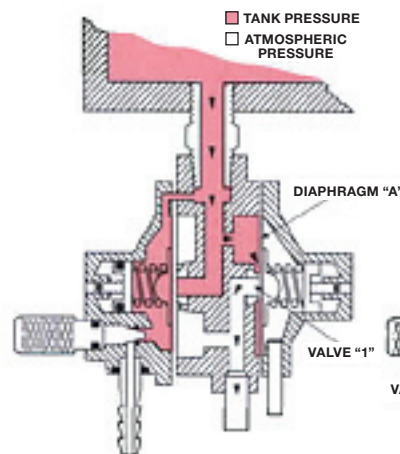


FIGURE 2
TANK PRESSURE HIGH
EXHAUSTING TO ATMOSPHERE

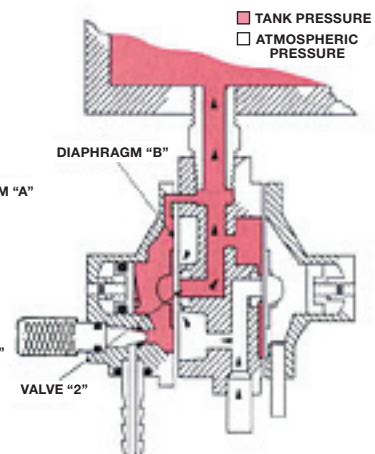


FIGURE 3
TANK VACUUM HIGH
AIR DRAWN FROM ATMOSPHERE

TECHNICAL SPECIFICATIONS

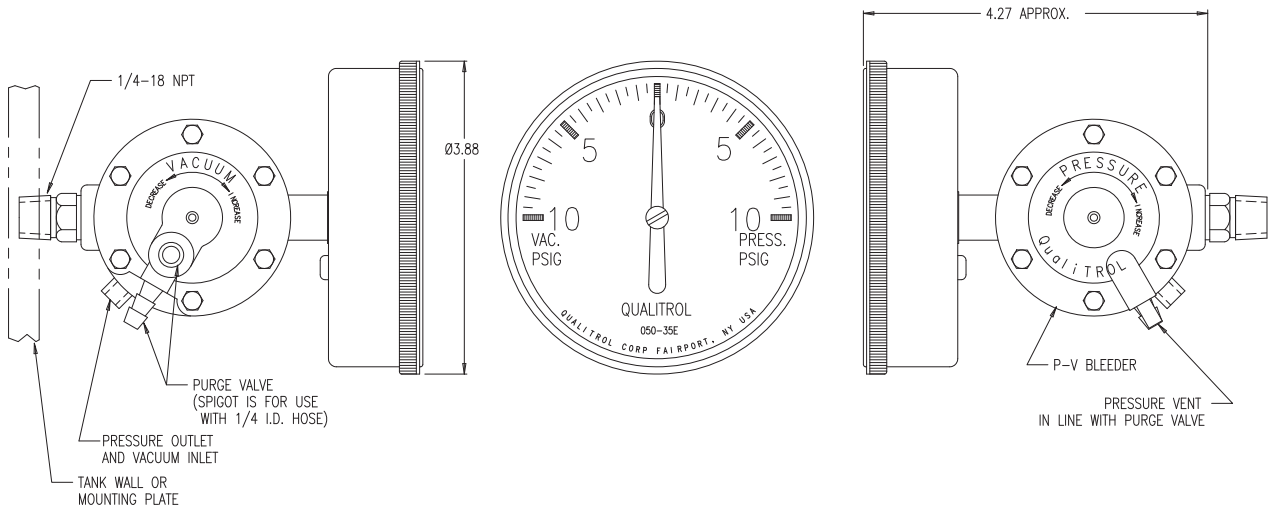
Mechanical	Mounting (351 series)	Top, bottom or side mount
	Mounting (070 series)	Side mount
	Dial range (070 series)	-5 to 5 PSI, -10 to 10 PSI
	Tank connection	1/4-14 NPT, 1/8-27 NPT
	Pressure range available on bleeders	3 to 12 PSIG adjustment (0.21-0.83 bar), special models available
	Vacuum range available on bleeders	-3 to -12 PSIG adjustment (-0.21 to -0.83 bar), special models available
	Repeatability	± 0.5 PSI
Dimensions	Dial diameter (070 series)	3.5" (89 mm)
Materials	Casing	Cast zinc-aluminum with thermosetting powder coat finish
	Diaphragm	Silicone, Viton
Environmental	Ambient operating temperatures	-40°F to 158°F (-40°C to 70°C)
	Acceptable mediums for valves	Gas/Air*

*Prolonged exposure of the silicon gasket to oil can cause valve to fail

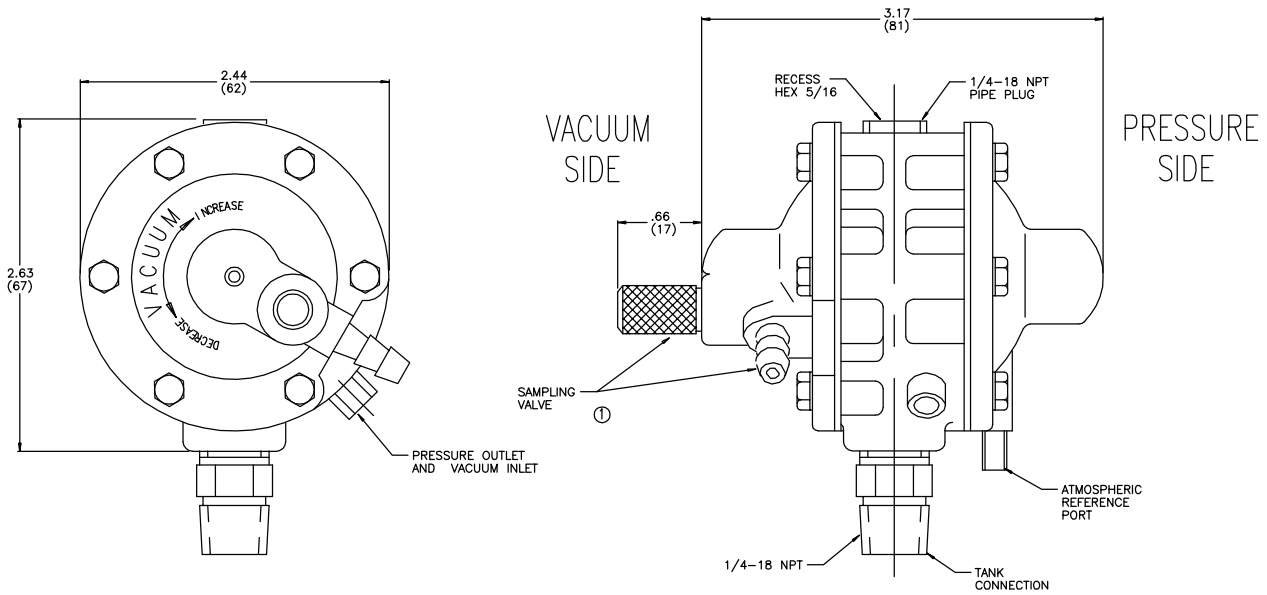


QUALITROL® 070/351 pressure-vacuum bleeders

070 Series



351 Series



QUALITROL® Field Services

To further improve reliability, QUALITROL provides comprehensive education and on-site commissioning services, maintenance contracts and technical support to all customers worldwide. Emergency response is available on all products and services.

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