# Cryogenic ½" Pressure Builder
# PB504 Series

## Application

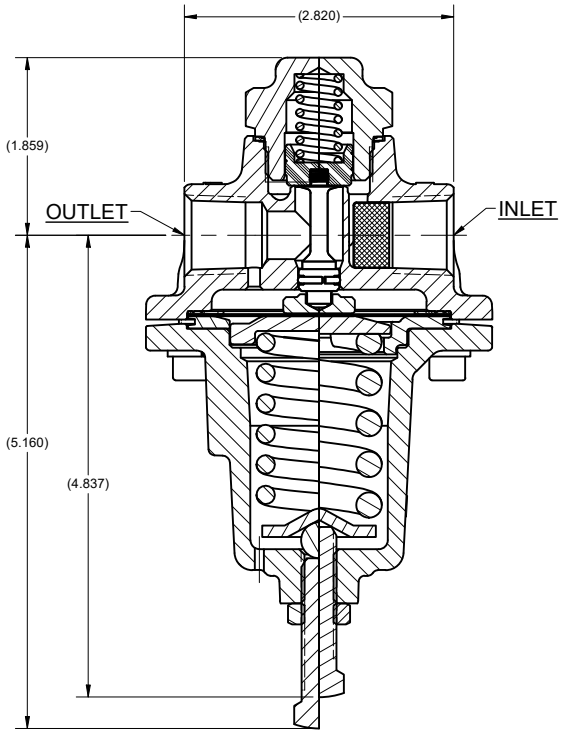
PB series cryogenic regulators are primarily designed to maintain the pressure in cryogenic containers; they may also be used as a line regulator for cryogenic lines and cold gas lines. They are specifically useful in installations where the precision in pressure control and flow capability are important. For use with oxygen, nitrogen, argon, LNG and $CO_2$.

REGO 10 YEAR WARRANTY

**PB504**

## Features

- All parts are copper alloy (brass), PTFE and stainless steel—materials selected specifically for compatibility with cryogenic temperatures down to -320°F. (-196° C )
- One-piece PTFE Poppet seat design eliminates possible leak paths at cryogenic temperatures and provides better guidance for improved seating, ensuring a positive shutoff.
- High and low pressure regulators are the same compact size—designed to fit in close quarters
- Customizable pressure settings between 20 - 550 psig (1.4 - 37.9 barg)
- Interchangeable with existing cryogenic regulator units
- Inlet filter (150 Mesh) helps prevent foreign material from entering the regulator
- Easier to service, use an allen wrench versus large crescent wrench
- Less field repair because diaphragm is squeezed versus twisted
- Locknut is provided to maintain adjusting screw setting
- Maximum inlet pressure of 600 psig (41.4 barg)
- Cleaned for oxygen service per CGA G-4.1
- 100% Factory Tested
- Copper Backcap Gasket reduces the possibility of external leakage at cryogenic temperatures, as the contraction coefficient is similar to that of brass




## Materials

| | |
|---|---|
| Body | Brass |
| Bonnet | Brass |
| Poppet | PTFE |
| Springs | Stainless Steel |
| Diaphragm Gasket | PTFE |
| Backcap Gasket | Copper |
| Diaphragm | Bronze |

**PB504 Series part number configuration**

PB504 - 205

- PB504 - Series
- 205 - Set Pressure psig

## Ordering Information

| Part Number | Inlet / Outlet Connections (F.NPT) A Inches (mm) | Delivery Pressure Setting Range psig (barg) |
|---|---|---|
| PB504-020 to 070 | ½" (12.70) | 20 - 75 psig (1.4 - 5.2 barg) |
| PB504-071 to 175 | | 50 - 180 psig (3.4 - 12.4 barg) |
| PB504-176 to 300 | | 150 - 300 psig (10.3 - 20.7 barg) |
| PB504-301 to 465 | | 250 - 465 psig (17.2 - 32.1 barg) |
| PB504-466 to 550 | | 400 - 550 psig (27.6 - 37.9 barg) |

Delivery pressure setting psig specified by suffix in PB regulator number. Example: An order for PB504-125 has a maximum inlet pressure rating of 600 psig (41.3 barg) and is set at an outlet pressure of 125 psig (8.6 barg).