CIRCOR ENERGY | GO Regulator

CBP-3 Series
Compact Stainless Steel Back Pressure Regulators

Introduction

The CBP-3 Series is a compact back pressure regulator with some of the time proven features of the BP-3 Series and new features evolving the compact size. This regulator is designed to allow the construction of compact sophisticated analytical instrumentation where the optimum in back pressure control is required. Standard features allow service in many varied applications including corrosive fluids and with the optional features available, the user can tailor this regulator to virtually any application requiring small to moderate flow rates.

Typical Applications

- Analytical instrumentation
- Gas and liquid sampling
- Petrochemical industry
- Air compressors
- Research labs
- Pilot plants

Technical Data

CONSTRUCTION	316L stainless steel
ADJUSTABLE STANDARD PRESSURE RANGES	0–10, 0–25, 0–50, 0–100, 0–250 & 0–500 psig
OPERATING TEMPERATURE	−40° F to +500° F (−40° C to +260° C)
C_V COEFFICIENT	0.2 (standard) 0.005, 0.025, 0.03, 0.04, 0.06, 0.3 (optional)
INLET & OUTLET CONNECTIONS	⅛″ FNPT

Features & Benefits

- Gas or liquid service
- Bubble tight shutoff
- Compact size
- Tefzel® or Kalrez® in flow stream

Options

- Panel mount (requires a 1⅜″ mounting hole)
- Extra ports
- Pressure gauges

pressure regulators

Compact Stainless Steel Back Pressure Regulators

Maximum Temperature and Control Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE	@	MAXIMUM CONTROL RANGE
Viton®	250° F (121° C)	@	250 psig (1.72 MPa)
Kalrez®	300° F (148° C)	@	250 psig (1.72 MPa)
Tefzel®	175° F (80° C)	@	500 psig (3.44 MPa)
Polyimide	500° F (260° C)	@	500 psig (3.44 MPa)
PEEK™	500° F (260° C)	@	500 psig (3.44 MPa)

How to Order
For additional configurations, consult the factory. **Standard items in bold.**

CBP-3 – 1 A O 1 K 5 E 1 1 1 A

Body Material
1 **316L stainless steel**

Port Configuration
A **Standard (body "A")**
See pg. 28 for port locations.

Process Port Types
O **⅛″ FNPT (⅛″ FNPT gauge ports)**

Cavity Finish
1 **< 25 Ra**

Actuator Material
A **Tefzel®**
C Polyimide
D Viton®
K Kalrez®
Q PEEK™

Options
A EB33 (oxygen cleaning)
B EB5 cleaning
D Helium leak test
E Pressure test certificate
F Certificate of Conformity
G CMTR

Cap Assembly
1 **Standard, aluminum**
4 Panel mount, aluminum
8 Tamper-proof, aluminum
9 Fine adjust, ½″ panel mount, aluminum
0 Fine adjust, 1⅜″ panel mount, aluminum
E Tamper-proof, panel mount, aluminum

Diaphragm Facing/Backing/O-ring Material
1 **Tefzel® seal ring / stainless steel / PTFE**
2 Tefzel® seal ring / Inconel® / PTFE
3 PTFE facing / Viton® / Viton®
7 Tefzel® seal ring / stainless steel / Viton®
H Tefzel® seal ring / Inconel® / Viton®

Diaphragm Type
1 **Standard, Nylon diaphragm slip ring (170° F max. temp)**
2 Standard, Polyimide diaphragm slip ring (high temp. service)

Control Range
C 0–10 psig
D 0–25 psig
E 0–50 psig
G 0–100 psig
I 0–250 psig
J 0–500 psig

Flow Coefficient (C_v)
1 0.03
3 0.06
5 **0.2**
7 0.3
C 0.025
E 0.04
I 0.005

NOTE: Contact the factory for any additional requirements.

For flow curve charts, visit www.goreg.com.