GO REGULATOR

CYL-20 Series

Corrosion-resistant Two-stage Pressure Reducing Regulator

Precision pressure control is now possible with the CYL-20 Series regulator. This two-stage regulator, constructed of 316L stainless steel and PTFE, has less than 0.01 percent outlet pressure change with varying inlet pressures and is designed for use in gas calibration systems and semiconductor materials processing.

With materials of only 316L stainless steel, PTFE and Tefzel®, this regulator is suitable for service in corrosive streams as well as non-corrosive streams with potential surface absorption problems. This regulator accepts inlet pressures up to 6000 psig and has bubble-tight shutoff. Operating temperature ranges may vary from –40° C up to +260° C and outlet pressure ranges of 0–10 psig up to 0–500 psig are easily adjustable by a fluted knob.

Features & Specifications

- 316L stainless steel, Inconel®, PTFE & Tefzel® in contact with operating media only
- Stainless steel caps & adjusting screws
- Bubble-tight shutoff
- CGA fitting for cylinder connection
- 2″ diameter stainless steel 316 gauges
- Maximum inlet pressure: 6000 psig
- Outlet pressure ranges of 0–10 psig, 0–50 psig, 0–100 psig, 0–250 psig and 0–500 psig
- Cv flow coefficients: 0.025, 0.06, 0.20, 0.50
- Operating temperatures of one line: –40° F to +500° F (–40° C to +260° C)
- Outlet pressure change is 0.01 psig per 100 psig of inlet decay

Options

- Relief valve
- Captured vent
- Special fittings available
- Shutoff valve

pressure regulators

GO Regulator
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Phone (864) 574-7966 Fax (864) 574-5608
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CYL-20 Series

How to Order

Standard items in bold

C2 – 1 F 1 C 1 1 1 1 0 0 0 1 A 3 A 3

CGA Fitting

BODY MATERIAL
- **1 316L stainless steel**

PORT CONFIGURATION
- **F Standard**

For more port configurations, see page 19.

PROCESS PORT TYPES (GAUGE PORT TYPE, IF SPECIFIED)
- **1 ¼″ FNPT (¼″ FNPT gauge ports)**
- **3** ¼″ sch. 80 pipe stub, 4″ long (¼″ FNPT gauge ports)
- **4** ⅜″ FNPT (¼″ gauge ports)
- **K** ¼″ sch. 40 pipe stub, 4″ long (¼″ FNPT gauge ports)

OUTPUT 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

DIAPHRAGM TYPE, 1ST STAGE
- **1 Standard diaphragm**
- **2** Diaphragm-attached poppet
- **8** Tefzel® ring/stainless steel
- **9** PTFE/Inconel®
- **B** Tefzel® ring/stainless steel, diaphragm-attached poppet

DIAPHRAGM TYPE, 2ND STAGE
- **1 Standard diaphragm**
- **2** Diaphragm-attached poppet
- **3** Self-relieving
- **8** Tefzel® ring/stainless steel
- **9** PTFE/Inconel®
- **B** Tefzel® ring/stainless steel, diaphragm-attached poppet

CAP ASSEMBLY, 1ST STAGE
- **1 Tamper-proof**

CAP ASSEMBLY, 2ND STAGE
- **1 Standard**
- **4** Panel mount

CGA FITTINGS

Use '000' to omit CGA
Use 'CUS' for customer-supplied CGA

GAUGES
- **1** Include gauges
- **2** Omit gauges
- **3** Customer-supplied

1ST STAGE SEAT MATERIAL
- **A Tefzel®**
- **H** PCTFE (formerly Kel-F® 81)
- **I** High density PTFE
- **Q** PEEK™

1ST STAGE Cv FLOW
- **3 0.06**
- **5** 0.2

2ND STAGE SEAT MATERIAL
- **A Tefzel®**
- **H** PCTFE (formerly Kel-F® 81)
- **I** High density PTFE
- **Q** PEEK™, low temperature service, plastic knob

2ND STAGE Cv FLOW
- **3 0.06**
- **5** 0.2
- **C** 0.025
- **H** 0.5

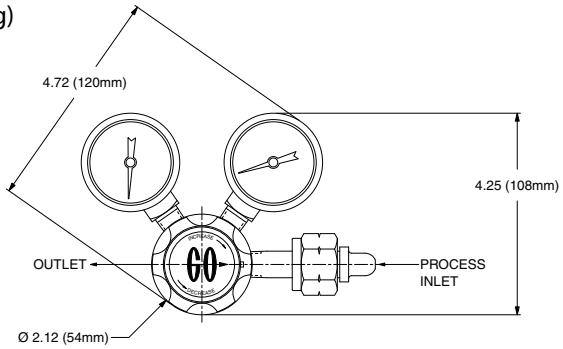
NOTE: The choices above represent an abbreviated list of the more commonly ordered options. For a complete listing of all available options, please see the Selection Wizard on the GO website at www.goreg.com or contact the factory.

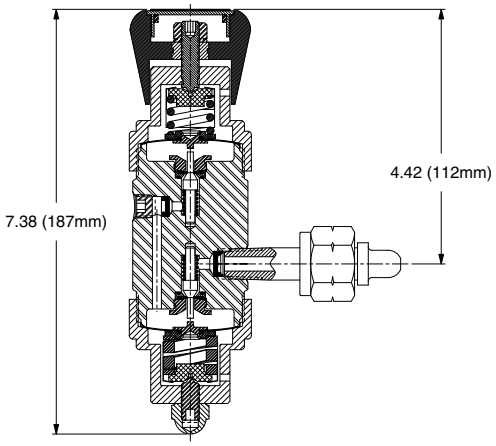
Maximum Temperature & Operating Inlet Pressures

SEAT MATERIAL	MAXIMUM TEMPERATURE		MAXIMUM OPERATING INLET PRESSURE
Tefzel®	150° F (66° C)	@	3600 psig (24.82 MPa)
High density PTFE	150° F (66° C)	@	3600 psig (24.82 MPa)
PCTFE (formerly Kel-F® 81)	175° F (80° C)	@	6000 psig (41.37 MPa)
Polyimide	500° F (260° C)	@	3600 psig (24.82 MPa)
Polyimide	175° F (80° C)	@	6000 psig (41.37 MPa)
PEEK™	500° F (260° C)	@	3600 psig (24.82 MPa)
PEEK™	175° F (80° C)	@	6000 psig (41.37 MPa)

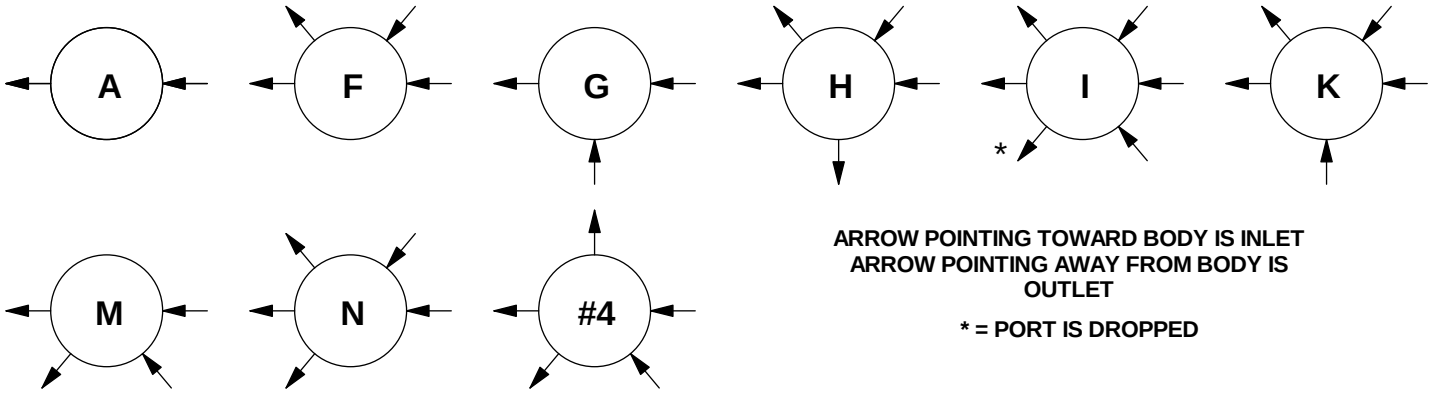
Outline & Mounting Dimensions

Weight = 3.9 lbs (1.77 kg)





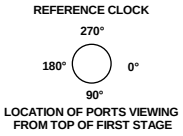
Tefzel® is a registered trademark of the DuPont Company.
Inconel® is a registered trademark of Special Metals Corporation.
Kel-F® is a registered trademark of 3M Company.
PEEK™ is a trademark of Victrex PLC.



ARROW POINTING TOWARD BODY IS INLET
ARROW POINTING AWAY FROM BODY IS OUTLET

*** = PORT IS DROPPED**

DUAL STAGE PRESSURE REDUCING PORTING CONFIGURATIONS



LOCATION OF PORTS VIEWING FROM TOP OF FIRST STAGE