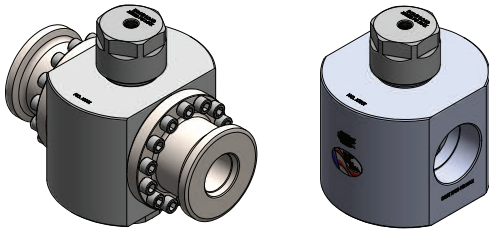


# 50120DL SERIES

Dome Loaded, High Flow  
Pressure Reducing Regulators



Premier 50120DL Series dome loaded, single stage, high flow, piston sensed, pressure reducing regulators, designed for inlet pressures up to 6000 PSIG (*413.69 bar*), and Cv 12.0. The 50120DL features an externally loaded 1:1 dome load with a max outlet pressure of 6000 PSIG (*413.69 bar*).

## FEATURES

- Flow capacity (Cv): 12.0
- 6000 PSIG (*413.69 bar*) max inlet pressure
- Piston Sensed
- 1:1 Dome load
- Economical pricing
- Machined bar stock body eliminates porosity found in castings
- Optional external sensing port

**SOME APPLICATIONS WILL REQUIRE A CUSTOM SOLUTION.**  
CONTACT PREMIER INDUSTRIES TO REQUEST A MODIFICATION  
OR A CUSTOM DESIGN.

## SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
  - 6000 PSIG (413.69 bar)
- **MAXIMUM OUTLET PRESSURE:**
  - 6000 PSIG (413.69 bar)
- **FLOW (Cv):** 12.0

## MATERIALS OF CONSTRUCTION

- **BODY:**
  - 316 Stainless Steel
- **BONNET:**
  - 17-4 PH Stainless Steel
- **PISTON:**
  - 316 Stainless Steel
- **MAIN VALVE:**
  - 17-4 PH Stainless Steel
- **MAIN VALVE SEAT:**
  - PEEK®
  - Vespel® SP-1
  - PCTFE (3600 PSIG MAX)
  - PTFE filled PEEK
- **O-RING SEAL OPTIONS:**
  - Viton®
  - Buna-N
  - EPDM
  - Low-temp Buna-N
  - Polyurethane
- **BACK-UP RINGS:**
  - PTFE
- **STANDARD LUBRICANT:**
  - Krytox GPL 206

## PORTING

- **INLET/OUTLET OPTIONS:**
  - GRAYLOC 2" GR14 (BOLT-ON, 6000 PSIG MAX)
  - GRAYLOC 2" GR20 (BOLT-ON, 4600 PSIG MAX)
  - 1" FNPT (6000 PSIG MAX)
  - 1.5" FNPT (6000 PSIG MAX)
  - 2" FNPT (3600 PSIG MAX)
  - 1" SAE AS5202\* (6000 PSIG MAX)
  - 2" SAE AS5202\* (3600 PSIG MAX)
  - 1" SAE J1926 (6000 PSIG MAX)
  - 2" SAE J1926 (3600 PSIG MAX)
- *\*SAE AS5202 supersedes MS33649*
- **DOMEST PORT OPTIONS:**
  - 1/4" FNPT
  - 1/4" SAE AS5202
  - 1/4" SAE J1926

## OPTIONS

- Private label
- External sensing port
- Surface mount

*Viton® and Vespel® are registered trademarks of E.I. duPont de Nemours and Company.*

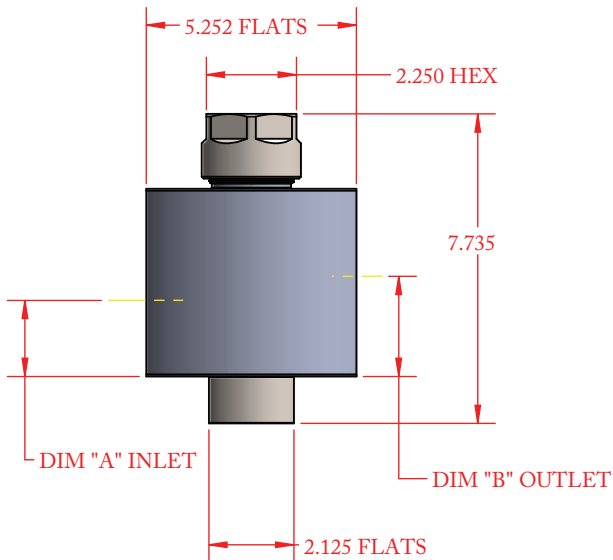
*PEEK® is a registered trademark of Victrex PLC*

*Krytox® is a registered trademark of The Chemours Company FC, LLC.*

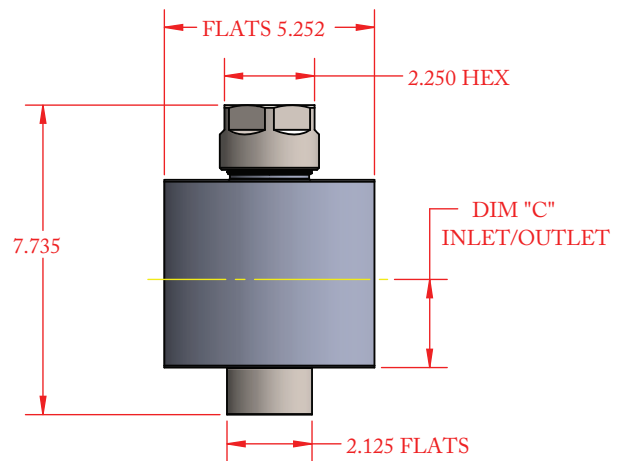
*Contact factory for material certifications. Fees may apply.*

**PART NUMBER: 30-10638**

### OFFSET PORT CONFIGURATIONS



### IN-LINE PORT CONFIGURATIONS



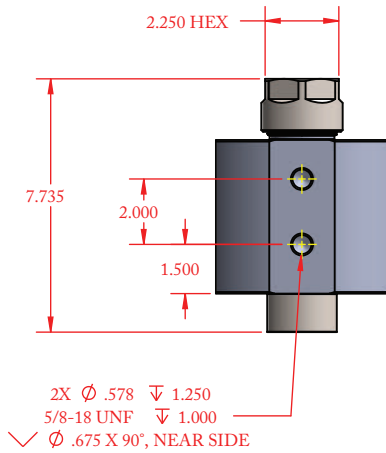
OFFSET PORT DIMENSIONS

PART#	DIM "A" (IN)	DIM "B" (OUT)
30-10638-XXX-12	1.50"	3.20"
30-10638-XXX-22	1.90"	3.20"
30-10638-XXX-13	1.50"	3.20"
30-10638-XXX-14	1.50"	3.20"

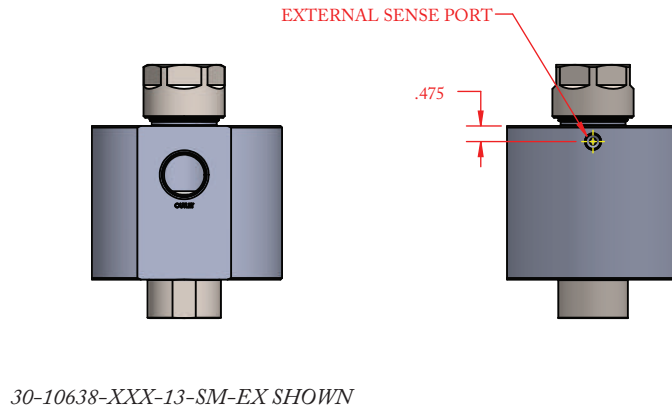
INLINE PORT DIMENSIONS

PART#	DIM "C"
30-10638-XXX-32	2.45"
30-10638-XXX-23	2.25"
30-10638-XXX-24	2.25"

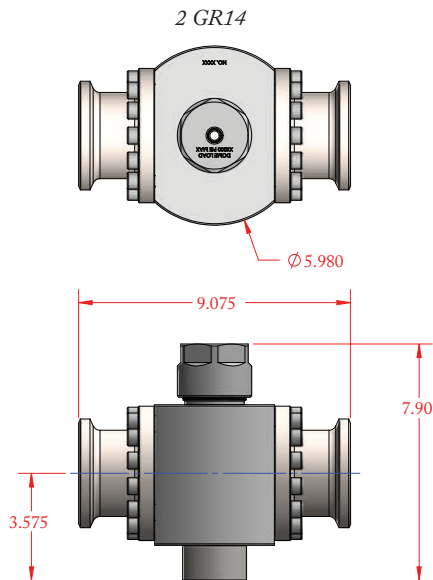
### SURFACE MOUNT



### EXTERNAL SENSING PORT



### GRAYLOC HUB CONFIGURATION



30-10638-XXX-11 (SHOWN ABOVE)

# 50120DL SERIES

Dome Loaded, High Flow  
Pressure Reducing Regulators

PART #	-	1	2	3	-	4	5	-	MODS
30-10638	-				-			-	

1	SEAT MATERIAL
1	VESPEL SP-1®
2	PEEK®
3	PCTFE (3600 PSIG MAX)
4	PTFE FILLED PEEK®
2	O-RING MATERIAL
1	BUNA-N
2	VITON®
3	EPDM
4	LOW TEMP BUNA-N
8	POLYURETHANE
3	DOME PORT
1	1/4" FNPT
2	1/4" SAE J1926
3	1/4" SAE AS5202

4 5	INLET/OUTLET PORT SIZE/TYPE
11	GRAYLOC 2" GR14 (BOLT-ON) (6000 PSIG MAX)
21	GRAYLOC 2" GR20 (BOLT-ON) (4600 PSIG MAX)
12	1" FNPT (6000 PSIG MAX)
22	1.5" FNPT (6000 PSIG MAX)
32	2" FNPT (3600 PSIG MAX)
13	1" SAE AS5202 (6000 PSIG MAX)
23	2" SAE AS5202 (3600 PSIG MAX)
14	1" SAE J1926 (6000 PSIG MAX)
24	2" SAE J1926 (3600 PSIG MAX)

MODIFICATIONS	
BLANK	NONE
AC	KRYTOX 240AC
E1	1/4" FNPT EXTERNAL SENSING PORT
E2	1/4" SAE J1926 EXTERNAL SENSING PORT
E3	1/4" SAE AS5202 EXTERNAL SENSING PORT
SM	SURFACE MOUNT

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