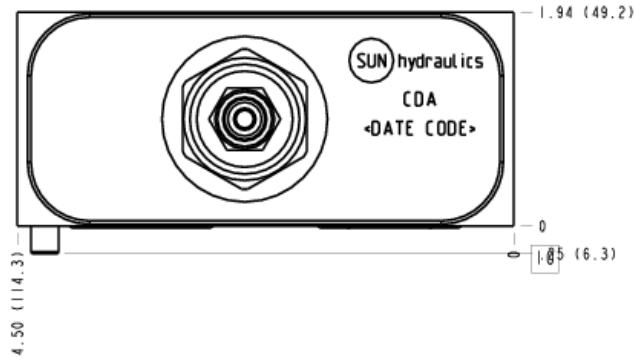
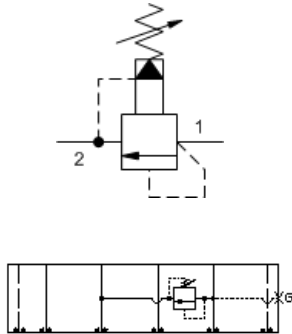


**MODEL**  
RPGCLAN-CDA

**Pilot-operated, balanced piston relief valve**  
**CAPACITY: 50 gpm | CAVITY: T-3A**



### CARTRIDGE CONFIGURATION

|               |                  |  |
|---------------|------------------|--|
| <b>L</b>      | Control          | Standard Screw Adjustment  |
| <b>A</b>      | Adjustment Range | 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting |
| <b>N</b>      | Seal Material    | Buna-N   |
| <b>(none)</b> | Material/Coating |  |

Pilot-operated, balanced-piston relief cartridges are normally closed pressure regulating valves. When the pressure at the inlet (port 1) reaches the valve setting, the valve starts to open to tank (port 2), throttling flow to regulate the pressure. These valves are accurate, have low pressure rise vs. flow, they are smooth and quiet, and are moderately fast.

### MANIFOLD CONFIGURATION

|               |          |                            |
|---------------|----------|----------------------------|
| <b>(none)</b> | Modifier | 6061-T651 Aluminum, Buna-N |
|---------------|----------|----------------------------|

### CARTRIDGE TECHNICAL DATA

|  |                                  |
|--|----------------------------------|
| Cavity   | T-3A                             |
| Series   | 2                                |
| Capacity   | 50 gpm                           |
| Maximum Operating Pressure                             | 5000 psi                         |
| Factory Pressure Settings Established at               | 4 gpm                            |
| Maximum Valve Leakage at 110 SUS (24 cSt)              | 3 in <sup>3</sup> /min.@1000 psi |
| Response Time - Typical                                | 10 ms                            |
| Adjustment - No. of CW Turns from Min. to Max. setting | 5                                |
| Valve Hex Size   | 1 1/8 in.                        |
| Valve Installation Torque                              | 45 - 50 lbf ft                   |
| Adjustment Screw Internal Hex Size                     | 5/32 in.                         |
| Locknut Hex Size                                       | 9/16 in.                         |
| Locknut Torque   | 80 - 90 lbf in.                  |
| Seal kit - Cartridge                                   | Buna: 990-203-007                |
| Seal kit - Cartridge                                   | EPDM: 990-203-014                |
| Seal kit - Cartridge                                   | Polyurethane: 990-003-002        |
| Seal kit - Cartridge                                   | Viton: 990-203-006               |
| Model Weight   | 0.57 lb.                         |

### PORT HEADINGS AND SIZES

| Modifiers                                       | Ports                           |
|---|---------------------------------|
| CDA, /10, /11, /15, /16, /S, /S3, /V, /Y, /Y3   | Gage Port (Plugged): 1/4" NPTF; |
| CDA/1A, /1B, /1F, /1G, /M, /T, /T3, /W, /W3, /Z | Gage Port (Plugged): 1/4" BSPP; |

### NOTES

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

Seal retainer plate is not required for this model.

**Important:** Carefully consider the maximum system pressure. The pressure rating of the manifold is dependent on the manifold material, with the port type/size a secondary consideration. Manifolds constructed of aluminum are not rated for pressures higher than 3000 psi (210 bar), regardless of the port type/size specified.

### MANIFOLD TECHNICAL DATA

|                                 |                       |
|---------------------------------|-----------------------|
| Body Type                       | Sandwich              |
| Interface                       | ISO 08                |
| Body Features                   | A to T with gage port |
| Stack Height                    | 1.94 in.              |
| Seal Plate Included (see notes) | No                    |

|               |           |
|---------------|-----------|
| Open Cavities | 1         |
| Cavity        | T-3A      |
| Port Size     | 1/4" NPTF |
| Model Weight  | 4.08 lb.  |

## CARTRIDGE TECHNICAL FEATURES

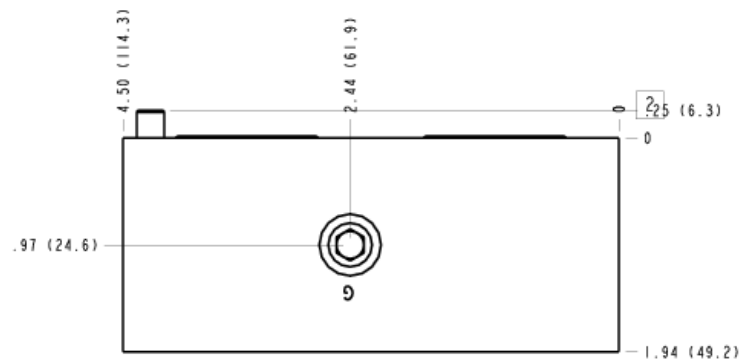
- All 2-port relief cartridges (except pilot reliefs) are physically and functionally interchangeable (same flow path, same cavity for a given frame size).
- Cartridges configured with EPDM seals are for use in systems with phosphate ester fluids. Exposure to petroleum based fluids, greases and lubricants will damage the seals.
- Will accept maximum pressure at port 2; suitable for use in cross port relief circuits. If used in cross port relief circuits, consider spool leakage.
- Main stage orifice is protected by a 150-micron stainless steel screen.
- Not suitable for use in load holding applications due to spool leakage.
- Back pressure on the tank port (port 2) is directly additive to the valve setting at a 1:1 ratio.
- W and Y controls (where applicable) can be specified with or without a special setting. When no special setting is specified, the valve is adjustable throughout its full range using the W or Y control. When a special setting is specified, this setting represents the maximum setting of the valve.
- Corrosion resistant cartridge valves are intended for use in corrosive environments and are identified by the model code suffix /AP for external stainless steel components, or /LH for external zinc-nickel plated components. See the CONFIGURATION section for all options. For further details, please see the Materials of Construction page located under TECH RESOURCES.
- Incorporates the Sun floating style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

## ASSEMBLY FACES

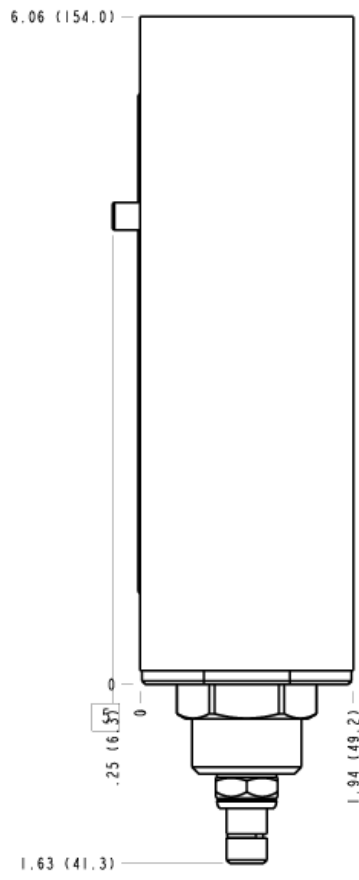
### FACE GRID

|   |    |    |    |
|---|----|----|----|
| 1 | 2  | 3  | 4  |
| 5 | 6  | 7  | 8  |
| 9 | 10 | 11 | 12 |

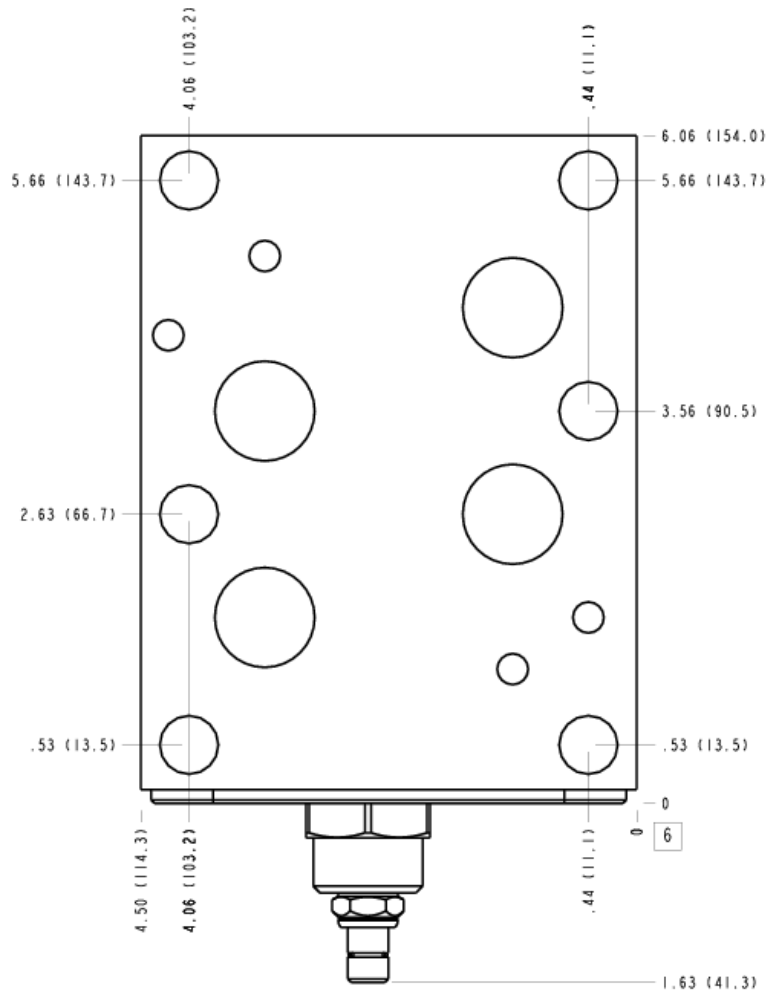
### Face 2



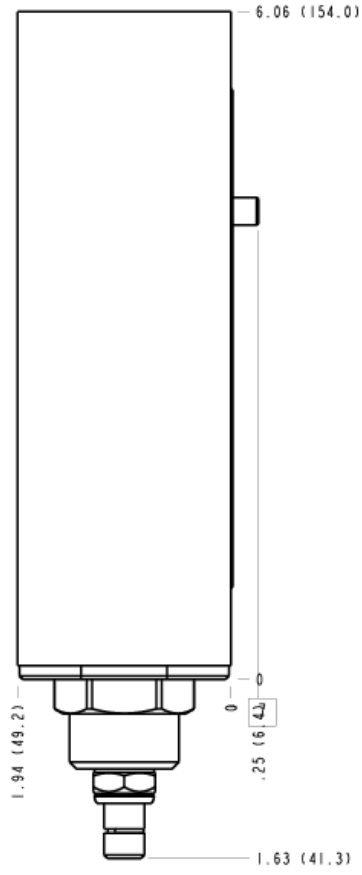
### Face 5



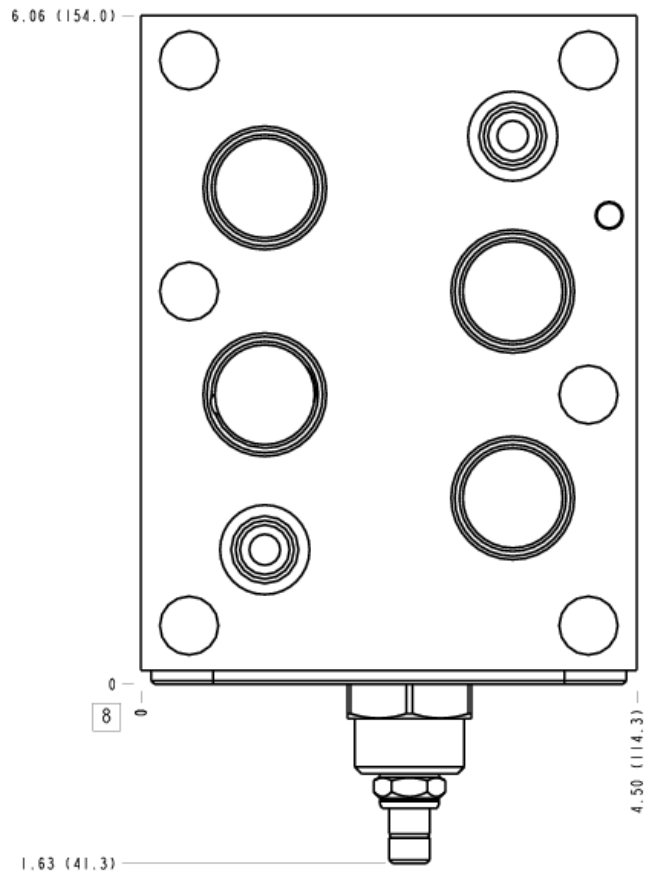
Face 6



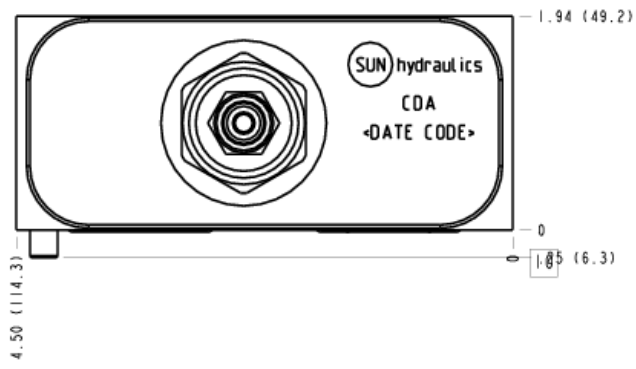
Face 7



Face 8



# Face 10



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