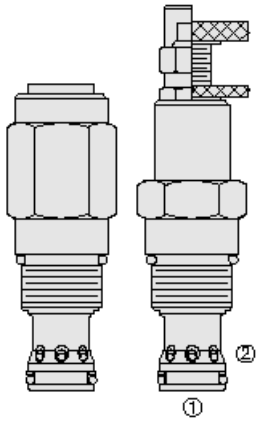




## Overview



### Description

RV12-26X is a screw in, cartridge style, pilot operated (two stage), spool type relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis

### Operation

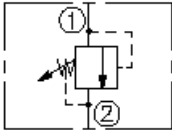
The RV12-26X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the pilot relief off its seat, allowing the main stage to shift, opening port 1 to port 2

**note:** this valve cannot be used in cross-over relief applications

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 240 bar (3500 psi).
- Rapid, smooth response to pressure surges.
- Cost-effective cavity.

### Symbol



## Ratings

### Pressure Ratings

|                        |                                     |                       |
|------------------------|-------------------------------------|-----------------------|
| Pressure rating        | 241.3 bar (3500 psi)                | - <b>Note:</b> Port 1 |
|                        | 103.4 bar (1500 psi)                | - <b>Note:</b> Port 2 |
| Proof pressure         | 689.5 bar (10000 psi)               |                       |
| Burst pressure         | 1379.0 bar (20000 psi)              |                       |
| Crack pressure defined | Pressure evident at 7.6 lpm (2 gpm) |                       |

### Flow Ratings

|                          |                                      |  |
|--------------------------|--------------------------------------|--|
| Flow rating              | 170.3 lpm (45 gpm)                   | - <b>Note:</b> At max pressure                     |
| Maximum internal leakage | 197 ml/min (12 in <sup>3</sup> /min) | - <b>Note:</b> At port 2 at 85% of nominal setting |

### Temperature Ratings

|                             |                               |  |
|-----------------------------|-------------------------------|--|
| Operating fluid temperature | -40 to 100 °C (-40 to 212 °F) | - <b>Note:</b> With buna N seals       |
|                             | -26 to 204 °C (-15 to 400 °F) | - <b>Note:</b> With fluorocarbon seals |
|                             | -54 to 107 °C (-65 to 225 °F) | - <b>Note:</b> With polyurethane seals |
| Storage temperature         | -40 to 70 °C (-40 to 160 °F)  |  |
| Ambient temperature         | -40 to 70 °C (-40 to 160 °F)  |  |

### Other Ratings

|                      |   |
|----------------------|---|
| Corrosion protection | 960 hr salt spray per ASTM b117 (grv12-26x) |
|----------------------|---|

## Operating Parameters

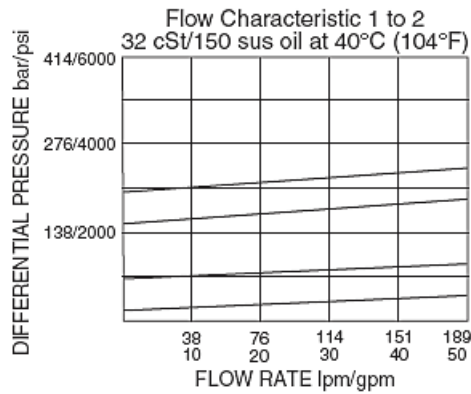
|                                       |  |
|---------------------------------------|--|
| Fluids                                | Mineral based or synthetic with lubricating properties |
| Fluid viscosity range                 | 7.4 to 420 cSt   |
| Maximum operating contamination level | 18/16/13 per ISO 4406                                  |

## Properties

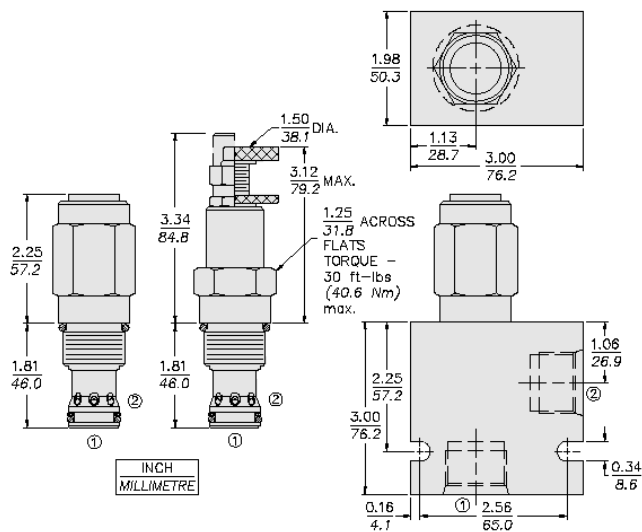
|                              |   |                        |
|------------------------------|---|------------------------|
| Unit weight                  | 0.35 kg (0.78 lb)                           | - <b>Note:</b> A       |
|                              | 0.38 kg (0.83 lb)                           | - <b>Note:</b> B       |
|                              | 0.40 kg (0.88 lb)                           | - <b>Note:</b> C I     |
|                              | 0.40 kg (0.89 lb)                           | - <b>Note:</b> F h     |
|                              | 0.40 kg (0.89 lb)                           | - <b>Note:</b> F h     |
| Internal wetted surface area | 209 cm <sup>2</sup> (32.4 in <sup>2</sup> ) | - <b>Note:</b> A b c I |
|                              | 221 cm <sup>2</sup> (34.3 in <sup>2</sup> ) | - <b>Note:</b> F h     |



## Performance



## Dimensions



## Materials

### Materials

**Cartridge:** Weight: 0.34 kg (0.75 lb); Steel with hardened work surfaces. Zinc-plated exposed surfaces; Buna N O-rings and polyester elastomer back-up standard. Anodized aluminum knobs.

**Standard Ported Body:** Weight: 0.57 kg (1.25 lb); Anodized high-strength aluminum alloy, rated to 207 bar (3000 psi); Ductile iron bodies available; dimensions may differ.

**Adjustment Option Details:** See [adjustment options](#)

## Installation Specifications

|                               |  |                             |
|-------------------------------|--|-----------------------------|
| Cavity                        | VC12-2   |                             |
| Cartridge installation torque | 44.7 to 50.2 N-m (33 to 37 ft-lb)<br>33.9 to 35.3 N-m (25 to 26 ft-lb) | - <b>Note:</b> H-style plug |
| Orientation restriction       | None   |                             |

## Accessories

|          |           |                                |
|----------|-----------|--------------------------------|
| Seal kit | SK12-2X-B | - <b>Note:</b> X = seal option |
| Housings |           |                                |



Order Code

| POSITION | CODE | DESCRIPTION   |
|----------|------|---|
|          |      | RV12-26F-H-J-R/S                                      |
| F        |      | Adjustment Option                                     |
| F        | A    | 1/4" Hex Allen Head                                   |
| F        | B    | 1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob |
| F        | C    | 1/4" Hex Allen Head with Cover Cap                    |
| F        | F    | Factory Preset Non-Adjustable                         |
| F        | H    | Factory Preset Hidden Adjustment                      |
| F        | L    | 1/4" Hex Allen Head with Cover Cap and Lockwire Holes |
| H        |      | Line Body   |
| H        | 0    | No Body   |
| H        | 10T  | Aluminum SAE 10                                       |
| H        | 12T  | Aluminum SAE 12                                       |
| H        | 16T  | Aluminum SAE 16                                       |
| H        | 12TD | Ductile Iron SAE 12                                   |
| H        | 16TD | Ductile Iron SAE 16                                   |
| H        | 8B   | Aluminum BSPP 1" (8)                                  |
| H        | 8BD  | Ductile Iron BSPP 1" (8)                              |
| J        |      | Seal  |
| J        | N    | Buna-N  |
| J        | V    | Fluorocarbon  |
| J        | P    | Polyurethane  |
| J        | U    | PPDI Urethane   |
| R        |      | Spring  |
| R        | 04   | 6.9 to 27.6 bar (100 to 400 psi) Spring Range         |
| R        | 15   | 3.8 to 110.3 bar (200 to 1600 psi) Spring Range       |
| R        | 30   | 31 to 206.9 bar (450 to 3000 psi) Spring Range        |
| R        | 35   | 34.5 to 241.5 bar (500 to 3500 psi) Spring Range      |
| S        |      | Setting   |
| S        | MXXX | Spring Setting in XXX bar                             |
| S        | XX   | Spring Setting in XX psi (x 100)                      |

