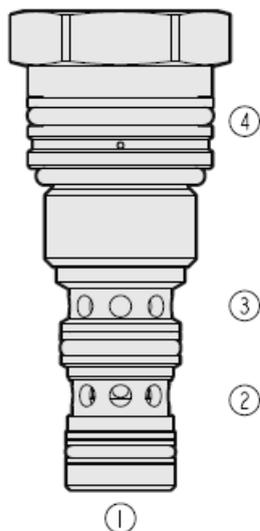




## Overview



### Description

The HVPR10-E48X is a screw in, cartridge style, direct acting, spool type, hydraulic pressure reducing / relieving valve with internal spring pilot chamber and spool damping chamber. It is designed to act as a pressure regulating device for secondary circuits. Port 2 may be protected by 60 mesh, 250 micron rated screen with option S.

### Operation

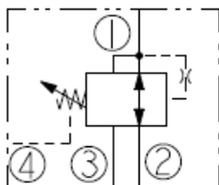
In its steady state, the hvpr10-e48x allows flow to pass bidirectionally from port 2 to port 1. External pilot pressure at port 4 predetermines valve setting. Upon attainment of a predetermined pressure at port 1, the spool shifts to block flow at port 2, thereby regulating pressure at port 1. In this mode, the valve will also relieve port 1 to port 3 at a variable value over the set reducing pressure.

**Note:** Tank port pressure is additive to pressure setting at ratio of 1:1.

### Features

- Control reducing pressure using an external reference.
- Hardened spool and cage for long life.
- Optional inlet screen.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	350 bar (5075 psi)	- <b>Note:</b> Port 1
	241.3 bar (3500 psi)	
Proof pressure	517.1 bar (7500 psi)	
Burst pressure	1379 bar (20000 psi)	

### Flow Ratings

Flow rating	113.6 lpm (30 gpm)	
Maximum internal leakage	82 ml/min (5 in <sup>3</sup> /min)	- <b>Note:</b> At 85% of the pressure setting applied to port 2.

### 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 urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

## Operating Parameters

Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406

## Properties

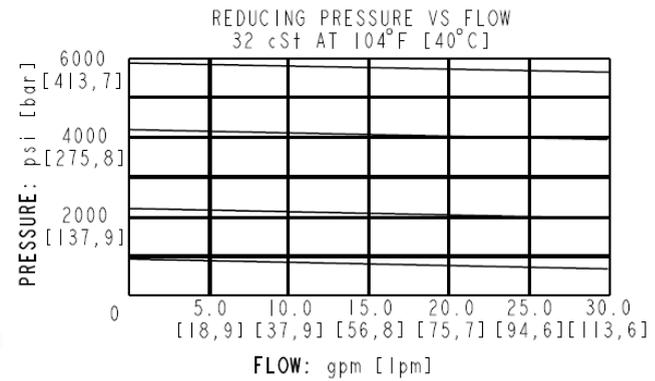
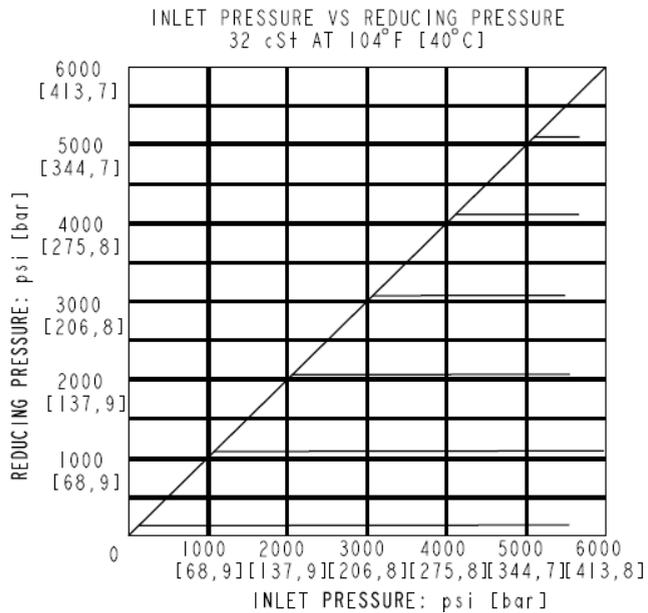
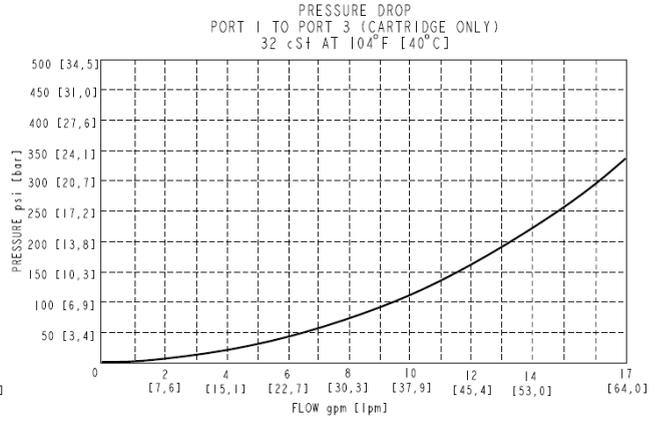
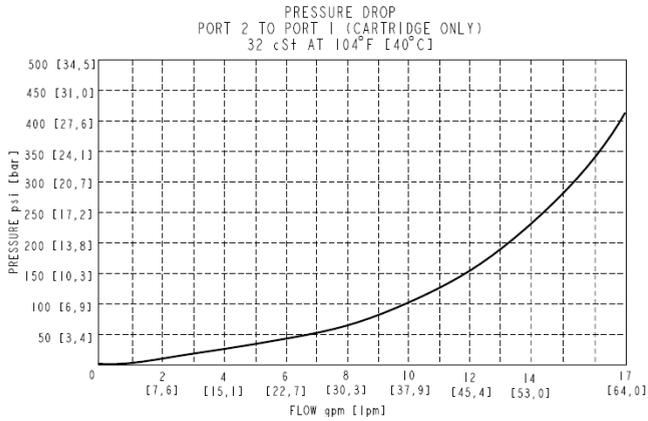
Unit weight	0.17 kg (0.37 lb)
Internal wetted surface area	141 cm <sup>2</sup> (21.8 in <sup>2</sup> )



## Installation Specifications

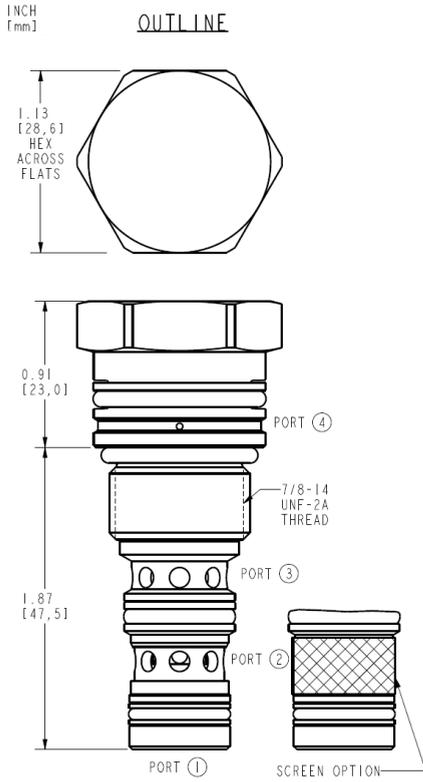
Cavity	HVC10-E4
Cartridge installation torque	94.9 to 108.5 N-m (70 to 80 ft-lb)
Orientation restriction	None

## Performance





### Dimensions



ALL DIMENSIONS ARE FOR REFERENCE ONLY

### Accessories

Seal kit

SK10-E4X-BBM  
SK10-E4U-OOO

- **Note:** X = N and V seal options  
- **Note:** U seal option



**Order Code**

ORDERING INFORMATION:

**HVPR10-E48X-0-X**

BASE MODEL NUMBER:

SCREEN OPTION:

NONE - BLANK  
SCREEN - S

PORTING:

CARTRIDGE ONLY - 0

SEAL OPTION:

BUNA N - N  
FLUOROCARBON - V  
URETHANE - U

**Model Options**

**HVPR10-E48G-H-J**

**G Screen**

CODE	DESCRIPTION
BLANK	No Screen
S	Screen

**H Line Body**

CODE	DESCRIPTION
0	No Body
8TD	Ductile Iron SAE 8

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon