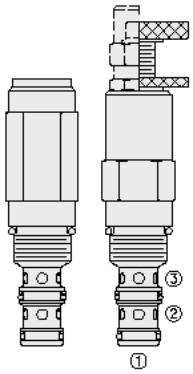
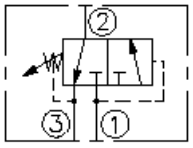
SEQUENCE VALVE

Overview



SYMBOL



Description

The PS10-30X is a screw in, cartridge style, direct acting, spool type, hydraulic sequence valve with internal pilot and spring chamber drain. It is designed to direct flow to a secondary circuit once a predetermined pressure is attained in the primary circuit.

Operation

In its steady state, the PS10-30X blocks flow at port 1, while allowing flow from port 2 to port 3. On attainment of a predetermined pressure at port 1, the valve shifts port 1 opens to port 2, port 3 closes.

Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Optional spring ranges to 144.8 bar (2100 psi).
- Hardened spool and cage for long life.
- Industry-common size.

Ratings

Pressure Ratings

Pressure rating: 206.8 bar (3000 psi) note: Ports 1, 2
68.9 bar (1000 psi) note: Port 3
Proof pressure: 517.1 bar (7000 psi) note: Ports 1, 2
103.4 bar (1500 psi) note: Port 3
Burst pressure: 965.3 bar (14000 psi)
Crack pressure defined: Pressure evident at 0.95 lpm (0.25 gpm) attained port 1 to port 2

Flow Ratings

Flow rating: 37.9 lpm (10 gpm)
Maximum internal leakage: 82 ml/min (5 in^3/min)

Temperature Ratings

Operating fluid temperature: -40 to 100 °C (-40 to 212 °F) note: With buna N seals
-26 to 204 °C (-15 to 400 °F) note: With viton 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: 18/16/13 per ISO 4406

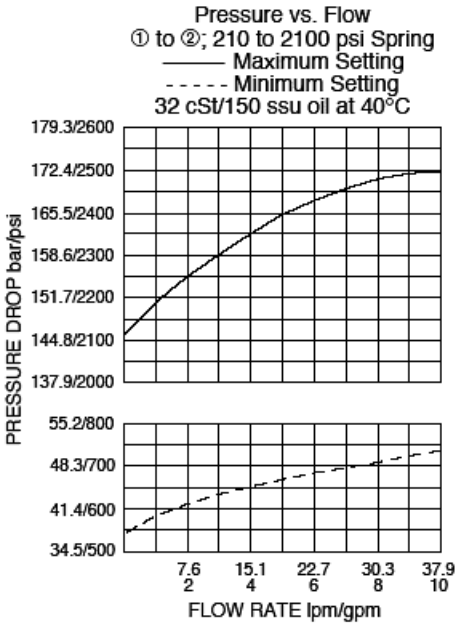
Properties

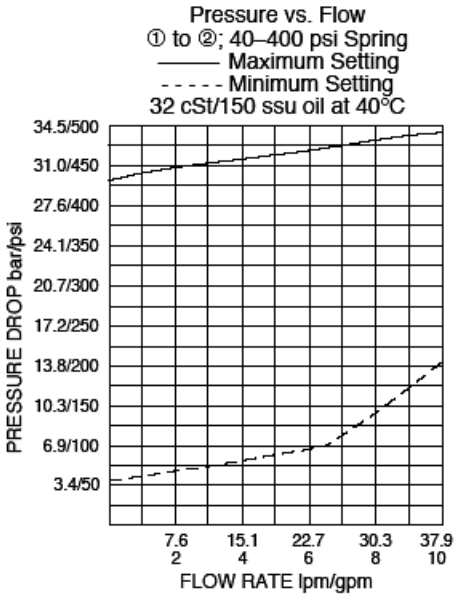
Unit weight: 0.25 kg (0.55 lb) note: PS10-30A
0.29 kg (0.65 lb) note: PS10-30C PS10-30L

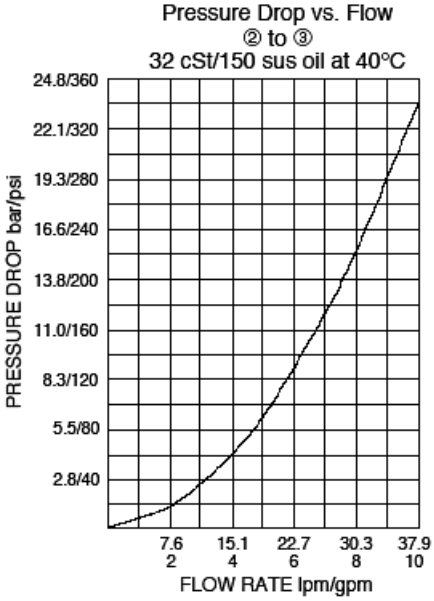
SEQUENCE VALVE

0.27 kg (0.60 lb) note: PS10-30B
0.24 kg (0.54 lb) note: PS10-30F PS10-30H
Internal wetted surface area: 143 cm^2 (22.1 in^2) note: PS10-30A PS10-30B PS10-30C PS10-30L
158 cm^2 (24.5 in^2) note: PS10-30F PS10-30H

Performance

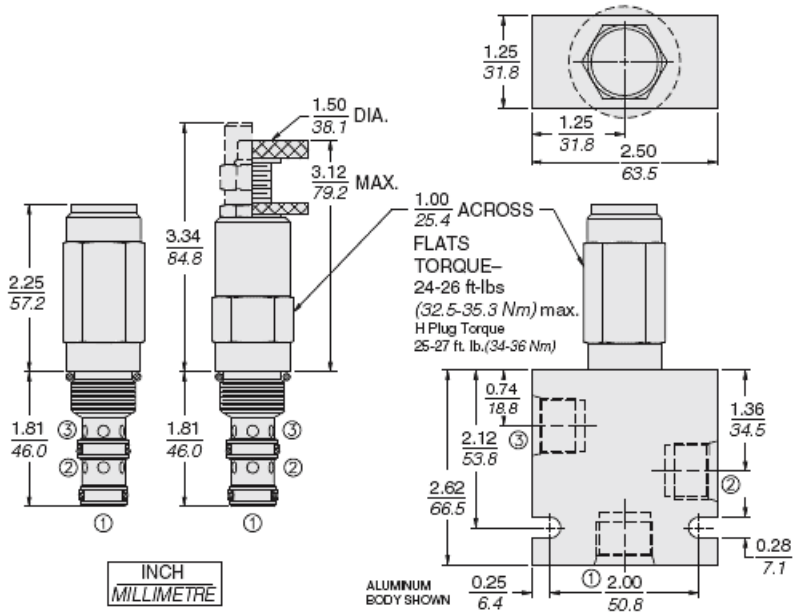






SEQUENCE VALVE

Dimensions



Installation Specifications

Cavity: VC10-3

10-size-3-way Cavities

Cartridge installation torque: 32.5 to 35.3 N-m (24 to 26 ft-lb)

H style plug torque: 33.9 N-m (25 ft-lb)

Orientation restriction: None

Accessories

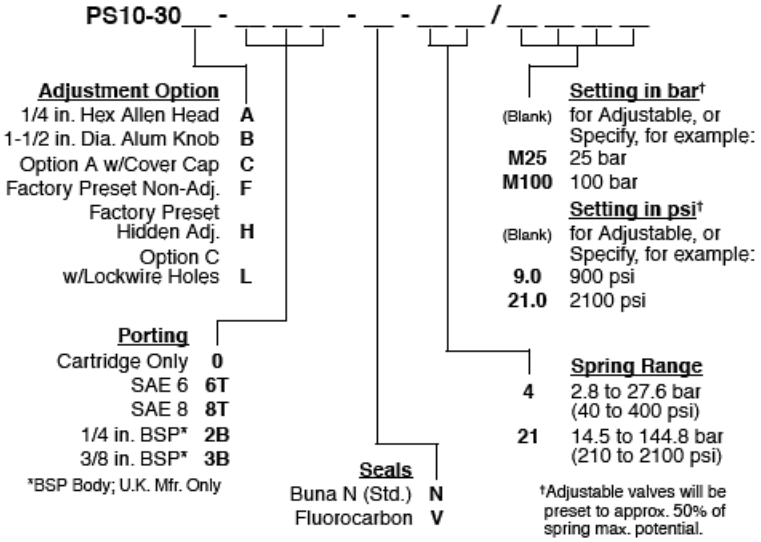
Seal kit: SK10-3X-BB

Seal kit installation instructions

Housings: Available 10-3w valve bodies

SEQUENCE VALVE

Order Code



Model Options

PS10-30F-H-J-R/S

F Adjustment Option

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

J Seal

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

R Spring

CODE	DESCRIPTION
04	2.8 to 27.6 bar (40 to 400 psi) Spring Range
08	9 to 55.2 bar (130 to 800 psi) Spring Range
15	11 to 103.4 bar (160 to 1500 psi) Spring Range
21	13.8 to 144.8 bar (200 to 2100 psi) Spring Range

SEQUENCE VALVE

S Setting

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)