

# SHARP 3-WAY MINI-PILOT

## Model PC-SHARP-X-P

SHARP is a sensitive and accurate diaphragm-operated mini-pilot. It is a multi-purpose 3-Way mini-pilot, based on a balance between the hydraulic force acting on the diaphragm, and the mechanical force of the calibration spring.

### Features

- Universal Mini-Pilot
  - Serves as a Pressure Reducing Pilot, Pressure Sustaining Pilot, Flow Control Pilot [PC-XD] & Hydraulic Relay
- High Quality
  - All calibration springs made of Stainless Steel
- Accurate & Flexible

### Typical Applications

- Pressure Reducing Valves
- Pressure Sustaining Valves
- Pressure Reducing & Sustaining Valves
- Flow Control Valves (Pilot with Sealed Cover "D")
- Hydraulic Relay

### Technical Data

**Pressure Rating:** 145 psi

**Water Temperature Range:** 32-122 °F

**Flow Factor:**

Ports "0" to "3": Cv 0.25

Ports "3" to "2": Cv 0.18

**Height (H):** 7 Inch

**Weight:** 0.44 Lbs

**Ports:** 1/8" NPT

**Standard Materials:**

**Body:** Polyamide 6 & 30% GF

**Cover:** Polyamide 6 & 30% GF

**Diaphragm & Seals:** NBR

**Internal Parts:** Stainless Steel

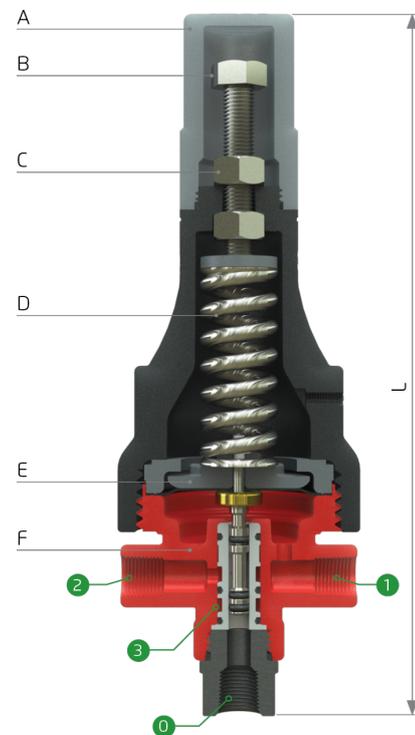
**Spring:** Stainless Steel

\* Flow Control Pilot [PC-XD] include low pressure sensing port on the sealed cover

**Adjustment Range:**

Spring	Spring Color	Setting range	Material
J	Green	3-25 psi	
K	Gray	7-43 psi	St. St. 302
<b>N</b>	<b>Natural</b>	<b>12-95 psi</b>	<b>St. St. 302</b>
V	Blue & White	15-150 psi	St. St. 302

Standard spring - marked in bold



Part	Description
A	Non-tamper safety cap (Optional)
B	Adjusting screw
C	Locking nut
D	Calibration spring
E	Diaphragm
F	Body

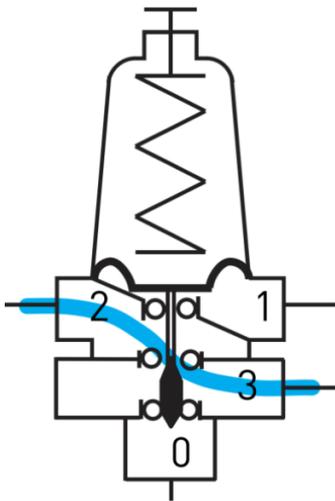
Port	Connections
0	Upstream: Pressure Reducing/Flow Control; Vent: Pressure Sustaining
1	Sensing
2	Vent: Pressure Reducing/Flow Control; Upstream: Pressure Sustaining
3	Valve Control Chamber

\* Flow Control Pilot [PC-XD] include low pressure sensing port on the sealed cover

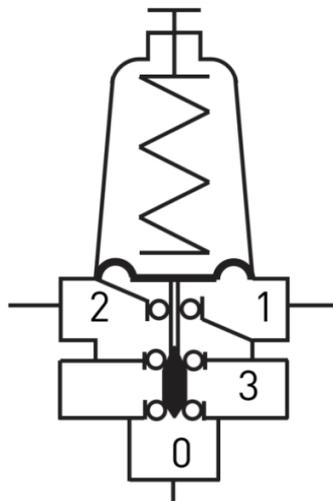


### Operation:

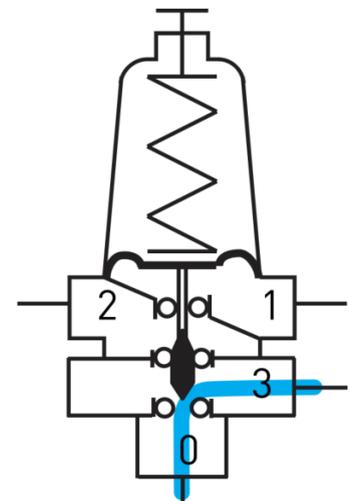
The SHARP Mini-Pilot sensing chamber is connected to the relevant pressure source according to application. The SHARP directs control pressure to & from valve control chamber, by opening and closing water passages (schematic drawing):



When sensed pressure lower than setting: 2<-->3  
Modulating Open (PRV)  
Modulating Close (PSV)



When sensed pressure equal to setting: 2|<-->3|<-->0  
"locked position"  
all passages locked



When sensed pressure higher than setting: 0<-->3  
Modulating Close (PRV)  
Modulating Open (PSV)

### Ordering guide:

Cat. no.	Description
5008L1G500	PC-SHARP-X-P, W/SPRING "J" GREEN (0.2-1.7 bar), 3W-PLASTIC MULTI PURPOSE PILOT VALVE
5008L1G200	PC-SHARP-X-P, W/SPRING "K" (0.5-3.0) GREY, 3W-PLASTIC MULTI PURPOSE PILOT VALVE
5008L1G400	PC-SHARP-X-P, W/SPRING "N" (0.8-6.5 bar), 3W-PLASTIC MULTI PURPOSE PILOT VALVE
5008L1G600	PC-SHARP-X-P, W/SPRING "V" (1-10 bar), 3W-PLASTIC MULTI PURPOSE PILOT VALVE