



## Quick Pressure Relief Pilot Valve

**Model PC-3Q-M**

This pilot integrates all principal functions of a 2-Way control circuit in a single assembly. It is a direct acting pilots valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. The pilot opens at upstream pressure rise above set point. An integral restriction acts as an upstream flow restrictor smoothing valve closing and simplifying the control circuit.

### Features

- Internal restriction
- Direct pressure gauge installation

### Application

Pressure relief valve quick type sizes 1 1/2-4"

### Technical data

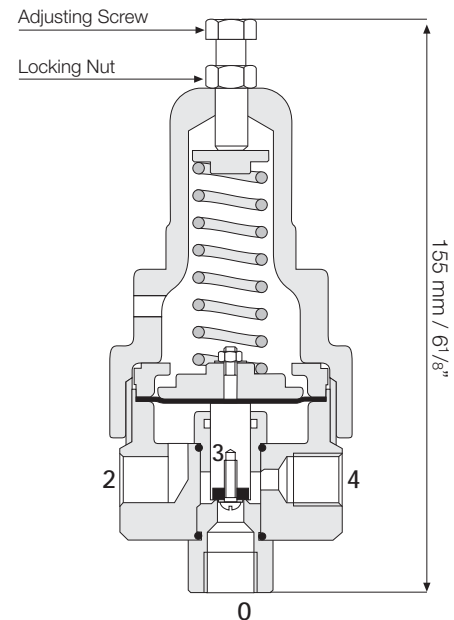
- Pressure Rating:** 16 bar; 232 psi
- Working Temperature:** Water up to 80°C; 180°F
- Flow Factor:** Kv 0.65 m³/h @ 1bar ΔP; Cv 0.75GPM @ 1psi ΔP
- Standard Materials:**
- Body & cover:** Brass
- Elastomers:** NBR
- Internals:** Stainless Steel & Brass
- Spring:** Galvanized Steel.
- Ports:** 1/4" NPT

### Adjustment Range

Spring	Pressure		
	bar	psi	
G-Blue	1-12	15-175	Standard
N-Natural	0.8-6.5	11-95	Optional

### Connections

- 1 - Upstream or pressure gauge
- 2 - Upstream or pressure gauge
- 3 - Valve control chamber (when 4 is plugged)
- 4 - Valve control chamber (when 3 is plugged)
- 0 - Downstream



Weight: 1.0 Kg; 2.2 lbs.





### Quick Pressure Relief Pilot Valve, Plastic

**Model PC-3Q-P**

This pilot integrates all principal functions of a 2-Way control circuit in a single assembly. It is a direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces.

The pilot opens at upstream pressure rise above set point.

An integral restriction acts as an upstream flow restrictor smoothing valve closing and simplifying the control circuit.

#### Features

- Internal restriction

#### Application

Pressure relief valve quick type sizes 1 1/2-4"

#### Technical data

**Pressure Rating:** 10 bar; 145 psi

**Working Temperature:** Water up to 50°C; 122°F

**Flow Factor:** Kv 0.29 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.33 GPM @ 1psi ΔP

**Standard Materials:**

**Body & cover:** Polyamit 6 + 30% F.G.

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel.

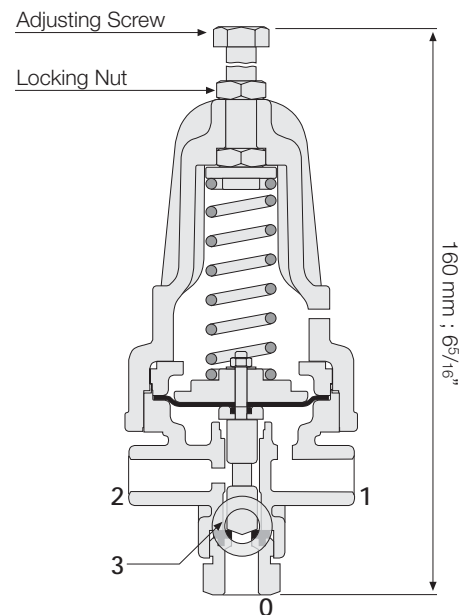
**Ports:** 1/8" NPT

#### Adjustment Range

Spring	Pressure		
	bar	psi	
H-Orange	1-7	15-100	Standard
N-Natural	0.8-6.5	11-95	Optional
K-Gray	0.5-3	7-40	

#### Connections

- 1 - Upstream
- 2 - Plugged
- 3 - Valve control chamber
- 0 - Downstream



Weight: 0.25 Kg; 0.55 lbs.





## Pressure Reducing Pilot Valve, Metal

### Model PC-20-M

This pilot integrates all principal functions of a 2-way control circuit in a single assembly. It is a direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. When used in a pressure reducing circuit, the pilot modulates closed as downstream pressure rises above set point. An internal restriction acts as an upstream flow restrictor.

### Features

- Internal or external upstream flow restrictor
- Internal or external pressure sensing
- Differential pressure sensing
- Direct pressure gauge installation

### Typical Applications

- Pressure reducing valves sizes 1½-10" (Standard model #PC-20-M)

### Technical Data

**Pressure Rating:** 16 bar; 232 psi

**Working Temperature:** Water up to 80°C; 180°F

**Flow Factor:** Kv 0.44 m³/h @ 1bar ΔP; Cv 0.51 GPM @ 1psi ΔP

**Standard Materials:**

**Body:** Brass

**Cover:** Brass

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel

**Ports:** 1/4" NPT

### Adjustment Range

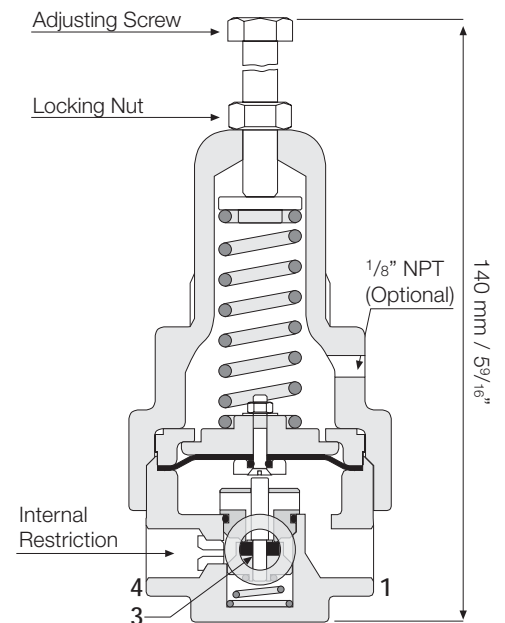
Spring	Pressure	
	bar	psi
G-Blue	1-10	15-145
H-Orange	1-7	15-100
N-Natural	0.8-6.5	11-95
K-Gray	0.5-3	7-40
J-Green*	0.2-1.7	3-25

Standard  
Optional

\* For PC-20-M-D-differential sensing.

### Connections

- 1 or 2 - Downstream / Remote sensing / Pressure gauge
- 3 - Valve control chamber
- 4 - Upstream



Weight: 0.91 Kg; 2.0 lbs.



### Pressure Reducing Pilot Valve

**Model PC-20-P**

This pilot integrates all principal functions of a 2-way control circuit in a single assembly. It is a direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. When used in a pressure reducing circuit, the pilot modulates closed as downstream pressure rises above set point. An internal restriction acts as an upstream flow restrictor.

#### Features

- Internal or external upstream flow restrictor
- Internal or external pressure sensing
- Differential pressure sensing

#### Typical Applications

- Pressure Reducing Valves sizes 1½-4" (Standard model #PC-20-P)
- Closing Surge Control (additional feature 49) for sizes 1½-4" (Modified to external pressure sensing PC-20-P-R)

#### Technical Data

**Pressure Rating:** 10 bar; 145 psi

**Working Temperature:** Water up to 50°C; 122°F

**Flow Factor:** Kv 0.22 m³/h @ 1bar ΔP; Cv 0.25 GPM @ 1psi ΔP

**Standard Materials:**

**Body & Cover:** Polyamide 6+30% F.G

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel

**Ports:** 1/8" NPT

#### Adjustment Range

Spring	Pressure	
	bar	psi
H-Orange	1-7	15-100
N-Natural	0.8-6.5	11-95
K-Gray	0.5-3	7-40
J-Green*	0.2-1.7	3-25

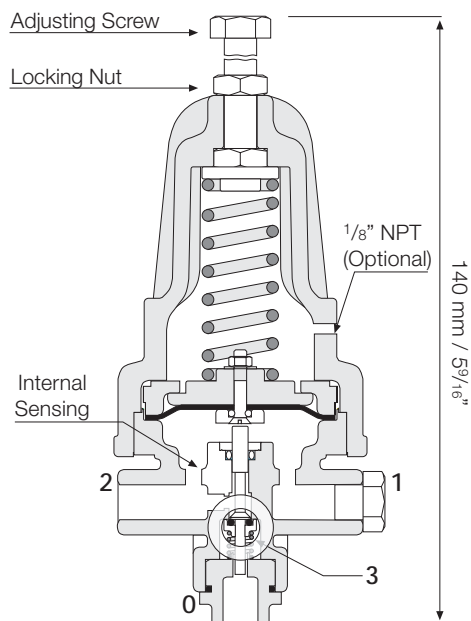
Standard

Optional

\* For PC-20-P-D-differential sensing.

#### Connections

- 0 - Upstream
- 3 - Valve control chamber
- 2 - Downstream
- 1 - Plugged/ External Sensing



Weight: 0.21 Kg; 2.0 lbs.





## Pressure Sustaining Pilot Valve, Metal

### Model PC-30-M

This is a 2-way direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. When used in a pressure relief/sustaining circuit, the pilot modulates open as upstream pressure rises above set point.

### Features

- Differential pressure sensing
- Direct pressure gauge installation

### Typical Applications

- Pressure Sustaining valves sizes 1 1/2-6" (Standard model PC-30-M).
- Differential pressure sustaining Valves sizes 1 1/2-6" (Modified to differential sensing PC-30-M-D)

### Technical Data

**Pressure Rating:** 16 bar; 232 psi

**Working Temperature:** Water up to 80°C; 180°F

**Flow Factor:** Kv 0.65 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.75 GPM @ 1psi ΔP

**Standard Materials:**

**Body & Cover:** Brass

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel

**Ports:** 1/4" NPT

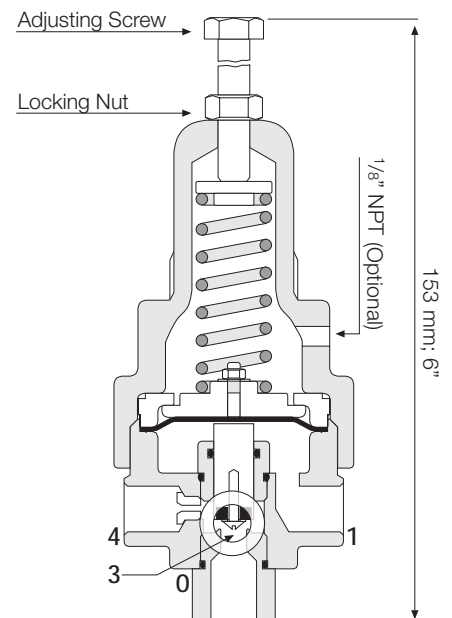
### Adjustment Range

Spring	Pressure		
	bar	psi	
G-Blue	1-12	15-175	Standard
H-Orange	1-7	15-100	Optional
N-Neutral	0.8-6.5	11-95	
K-Grey*	0.5-3	7-40	

\* For PC-30-M-D-differential sensing.

### Connections

- 0 - Downstream
- 1 - Sensing/pressure gauge
- 2 - Sensing/Pressure gauge
- 3 - Valve control chamber
- 4 - Upstream (through internal restriction)



Weight: 0.93 Kg; 2.05 lbs.



### Pressure Sustaining Pilot Valve, Plastic

#### Model PC-30-P

This is a 2-way direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. When used in a pressure relief/sustaining circuit, the pilot modulates open as upstream pressure rises above set point.

#### Features

- Differential pressure sensing

#### Typical Applications

- Pressure Sustaining valves sizes 1 1/2-4" (Standard model PC-30-P).
- Differential pressure sustaining Valves sizes 1 1/2-4" (Modified to differential sensing PC-30-P-D)

#### Technical Data

**Pressure Rating:** 10 bar; 145 psi

**Working Temperature:** Water up to 50°C; 122°F

**Flow Factor:** Kv 0.29 m³/h @ 1bar ΔP; Cv 0.33 GPM @ 1psi ΔP

**Standard Materials:**

**Body & Cover:** Polyamide 6 + 30% F.G.

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel

**Ports:** 1/8" NPT

#### Adjustment Range

Spring	Pressure	
	bar	psi
H - Orange	1-7	15-100
N - Natural	0.8-6.5	11-95
K - Grey*	0.5-3	7-40

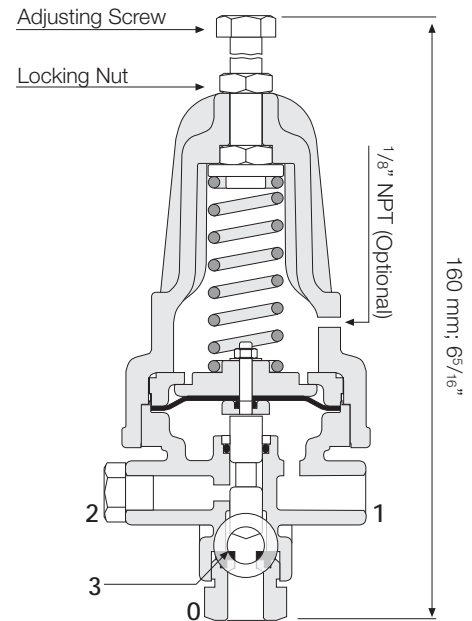
Standard

Optional

\* For PC-30-P-D - differential sensing.

#### Connections

- 0 - Downstream
- 1 - Remote sensing
- 2 - Plugged
- 3 - Upstream (downstream from inlet restriction and from control chamber connection)



Weight: 0.24 Kg; 0.53 lbs.





## Pressure Reducing Servo Pilot Valve, Metal

### Model PC-S-M

This pilot combines all principal functions of a 2-way control circuit with elements of a 3-way control circuit. It is a direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. A fully balanced trim ensures high accuracy and stability. When used in a pressure reducing circuit, the pilot modulates closed as downstream pressure rises above setting.

The pilot's unique internal design dynamically increases and decreases the main valve response speed in direct proportion to the discrepancy between actual demand and pilot setting pressures.

### Features

- Integrated dynamic upstream flow restrictor
- Differential pressure sensing

### Typical Applications

- Pressure Reducing Valves sizes 1 1/2-6" (Standard model PC-S-M)
- Flow Control Valves sizes 1 1/2-6" (Modified to differential sensing PC-SD-M)
- Pressure Sustaining Valves sizes 1 1/2-4" (Standard model connected as Pressure Sustaining pilot)
- Differential Pressure Sustaining Valves sizes 1 1/2-4" (Modified to PC-S-P-D and connected as Pressure Sustaining Pilots)

### Technical Data

**Pressure Rating:** 16 bar; 232 psi

**Working Temperature:** Water up to 80°C; 180°F

**Flow Factor:** Kv 0.09 m<sup>3</sup>/h @ 1 bar Δ psi ; Cv 0.1 GPM @1psi Δp

**Standard Materials:**

**Body:** Brass

**Cover:** Brass

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Stainless Steel

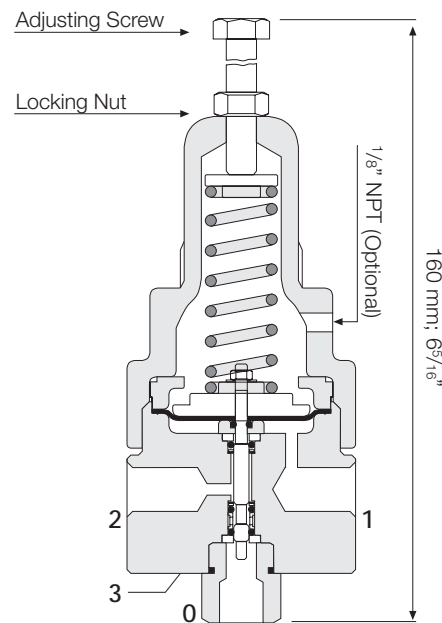
**Ports:** 1/4" NPT

### Adjustment Range

Spring	Pressure		
	bar	psi	
K-Grey	0.5-3	7-40	Standard
J-Green	0.2-1.7	3-25	Optional

### Connections

- 0 - Upstream for reducing, Downstream for Sustaining
- 1 - Sensing
- 2 - Downstream for reducing, Upstream for sustaining
- 3 - Valve control chamber



Weight: 1.35 Kg; 3.0 lbs.



## Pressure Reducing Servo Pilot Valve, Plastic

### Model PC-S-P

This pilot combines all principal functions of a 2-way control circuit with elements of a 3-way control circuit. It is a direct acting pilot valve, actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces. A fully balanced trim ensures high accuracy and stability. When used in a pressure reducing circuit, the pilot modulates closed as downstream pressure rises above setting.

The pilot's unique internal design dynamically increases and decreases the main valve response speed in direct proportion to the discrepancy between actual and setting pressures.

### Features

- Integrated dynamic upstream flow restrictor
- Differential pressure sensing

### Typical Applications

- Pressure Reducing Valves sizes 1 1/2-4" (Standard model PC-S-P)
- Flow Control Valves sizes 1 1/2-4" (Modified to differential sensing PC-SD-P)
- Pressure Sustaining Valves sizes 1 1/2-4" (Standard model connected as Pressure Sustaining Pilot)
- Differential Pressure Sustaining Valves sizes 1 1/2-4" (Modified to PC-S-P-D and connected as Pressure Sustaining Pilots)

### Technical Data

**Pressure Rating:** 10 bar; 145 psi

**Working Temperature:** Water up to 50°C; 122°F

**Flow Factor:** Kv 0.08 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.09 GPM @ 1psi ΔP

**Standard Materials:**

**Body & Cover:** Polyamide 6 + 30% F.G.

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Stainless Steel

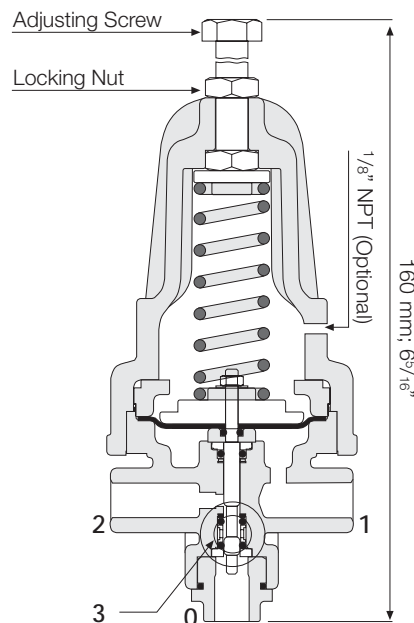
**Ports:** 1/8" NPT

### Adjustment Range

Spring	Pressure		
	bar	psi	
K-Grey	0.5-3	7-40	Standard
J-Green	0.2-1.7	3-25	Optional

### Connections

- 0 - Upstream for reducing, Downstream for Sustaining
- 1 - Sensing
- 2 - Downstream for reducing, Upstream for sustaining
- 3 - Valve control chamber



Weight: 0.2 Kg; 0.44 lbs.





## Positioning 3-Way Pilot Valve, Metal

### Model PC-X-M

This multi purpose, direct acting 3-way positioning pilot Valve is actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces.

The pilot directs flow and pressure between its ports:

- When sensed pressure is above set point, it connects port "0" to "3".
  - When sensed pressure is equal to set point, it blocks connections between all ports.
  - When sensed pressure is below set point, it connects port "3" with "2".
- Relevant pressure is continuously sensed through port "1".

### Typical Applications

- Pressure Reducing Valves (Type X) sizes 1 1/2-6"
- Pressure Sustaining Valves (Type X) sizes 1 1/2-6"
- Adjustable 3-Way Hydraulic Relay (N.O. or N.C.)
- Automatic Regulation Override (feature 09) sizes 1 1/2-6"

### Technical Data

**Pressure Rating:** 16 bar; 232 psi

**Working Temperature:** Water up to 80°C; 180°F

**Flow Factor:**

0 to 3: Kv 0.13 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.15 GPM @ 1psi ΔP

3 to 2: Kv 0.08 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.09 GPM @ 1psi ΔP

**Standard Materials:**

**Body & cover:** Brass

**Elastomers:** NBR

**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel

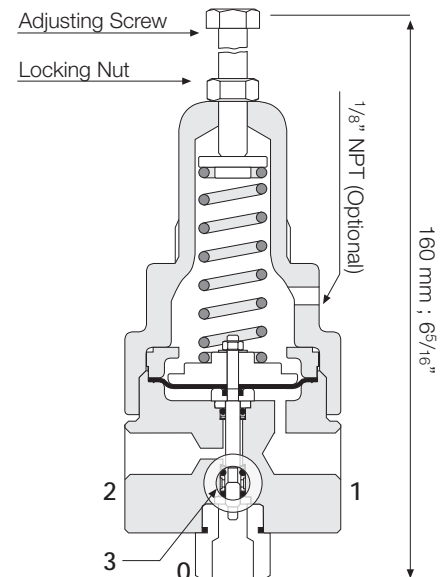
**Ports:** 1/4" NPT

### Adjustment Range

Spring	Pressure		
	bar	psi	
G-Blue	1-10	15-145	Standard
H-Orange	1-7	15-100	Optional
N-Natural	0.8-6.5	11-95	
K-Gray	0.5-3	7-40	

### Connections

- 0 - Upstream for reducing, Vent for sustaining
- 3 - Valve control chamber
- 2 - Vent for reducing, Upstream for sustaining
- 1 - Pressure Sensing



Weight: 1.35 Kg; 3.0 lbs.



### Positioning 3-Way Pilot Valve, Plastic

#### Model PC-X-P

This multi purpose, direct acting 3-way positioning pilot Valve is actuated by a pressure responsive diaphragm, which seeks to reach equilibrium between hydraulic and set spring forces.

The pilot directs flow and pressure between its ports:

- When sensed pressure is above set point, it connects port "0" to "3".
  - When sensed pressure is equal to set point, it blocks connections between all ports.
  - When sensed pressure is below set point, it connects port "3" with "2".
- Relevant pressure is continuously sensed through port "1".

#### Typical Applications

- Pressure Reducing Valves (Type X) sizes 1 1/2-4"
- Pressure Sustaining Valves (Type X) sizes 1 1/2-4"
- Adjustable 3-way Hydraulic Relay (N.O. or N.C.)
- Automatic Regulation Override (feature 09) sizes 1 1/2-4"

#### Technical Data

**Pressure Rating:** 10 bar; 145 psi

**Working Temperature:** Water up to 50°C; 122°F

**Flow Factor:**

0 to 3: Kv 0.13 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.15 GPM @ 1psi ΔP

3 to 2: Kv 0.08 m<sup>3</sup>/h @ 1bar ΔP; Cv 0.09 GPM @ 1psi ΔP

**Standard Materials:**

**Body & cover:** Polyamide 6 + 30% F.G.

**Elastomers:** NBR

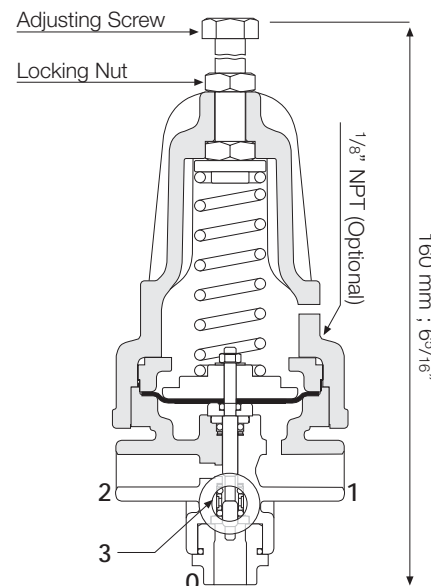
**Internals:** Stainless Steel & Brass

**Spring:** Galvanized Steel

**Ports:** 1/8" NPT

#### Adjustment Range

Spring	Pressure		
	bar	psi	
H-Orange	1-7	15-100	Standard
N-Natural	0.8-6.5	11-95	Optional
K-Gray	0.5-3	7-40	



Weight: 0.21Kg; 0.46 lbs.

#### Connections

- 0 - Upstream for reducing, Vent for sustaining
- 3 - Valve control chamber
- 2 - Vent for reducing, Upstream for sustaining
- 1 - Pressure Sensing

