

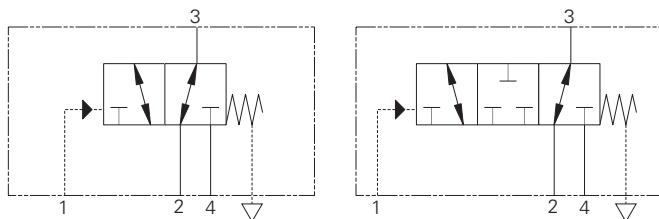
PTS1 1-10/12/16 - Pilot to shift valve

Pilot operated, directional control valve

PTS1 1-10: 30 L/min (8 USgpm) • 350 bar (5000 psi)

PTS1 1-12: 76 L/min (20 USgpm) • 350 bar (5000 psi)

PTS1 1-16: 132 L/min (35 USgpm) • 350 bar (5000 psi)



Operation

This valve allows flow between ports 2 and 3 while blocking port 4 until sufficient pressure has been applied to port 1 and the spring bias is overcome.

At this time, flow is directed between port 3 and port 4 while blocking port 2. During the cross-over transition, all ports are blocked. The spring chamber for this valve is externally vented to atmosphere.

Performance data

Ratings and specifications

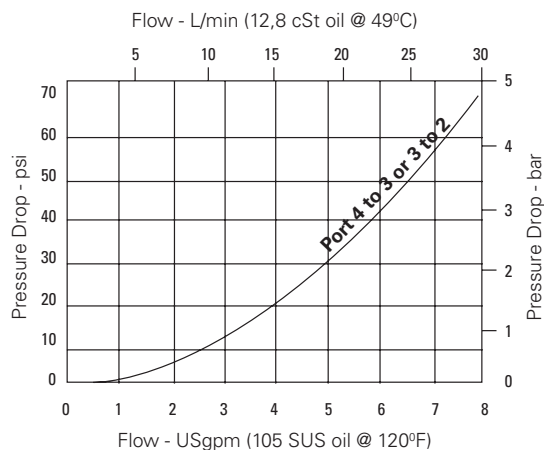
Performance data is typical with fluid at 21,8 cSt (105 SUS) and 49°C (120°F)

Typical application pressure (all ports)	350 bar (5000 psi)
Cartridge fatigue pressure (infinite life)	350 bar (5000 psi)
Rated Flow 10	30 L/min (8 USgpm)
Rated Flow 12	76 L/min (20 USgpm)
Rated Flow 16	132 L/min (35 USgpm)
Internal leakage -10	210 cc/min (13 in3/min) @ 210 bar (3000 psi)
Internal leakage -12 & 16	250 cc/min (15 in3/min) @ 350 bar (3000 psi)
Temperature range	-40° to 120°C (-40° to 248°F)
Pilot pressure 10	40 - 2,75 bar (40 psi) 80 - 5,5 bar (80 psi) 160 - 11,0 bar (160 psi)
Pilot pressure 12	80 - 5,5 bar (80 psi) 120 - 8,3 bar (120 psi)
Pilot pressure 16	80 - 5,5 bar (80 psi) 160 - 11,0 bar (160 psi)
Pilot displacement volume 10	0,49 cm3 (0.02 in3)
Pilot displacement volume 12	0,49 cm3 (0.02 in3)
Pilot displacement volume 16	1,97 cm3 (0.12 in3)
Cavity 10	C-10-4
Cavity 12	C-12-4
Cavity 16	C-16-4
Fluids	All general purpose hydraulic fluids such as: MIL-H-5606, SAE 10, SAE 20, etc.
Filtration	Cleanliness code 18/16/13
Standard housing materials	Aluminum, Steel (5000 PSI)
Weight cartridge only -10	0,14 kg (0.32 lbs)
Weight cartridge only -12	0.32 kg (0.70 lbs)
Weight cartridge only -16	0.5 kg (1.12 lbs)
Seal kit 10	889625 (Buna-N), 566080 (Viton®)
Seal kit 12	02-160979 (Buna-N), 02-160980 (Viton®)
Seal kit 16	889634 (Buna-N), 889638 (Viton®)

Viton is a registered trademark of E.I. DuPont

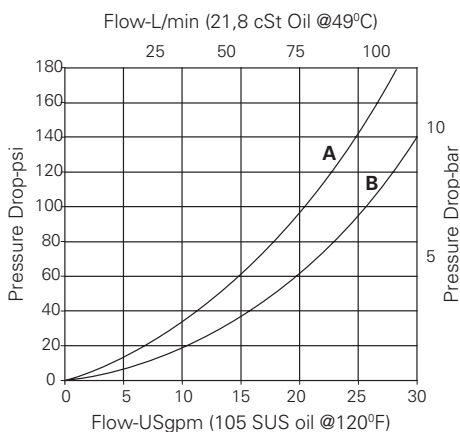
Pressure drop curves for - 10

Cartridge only



Pressure drop curves for 12

Cartridge only



A - P3 to P2

B - P3 to P4

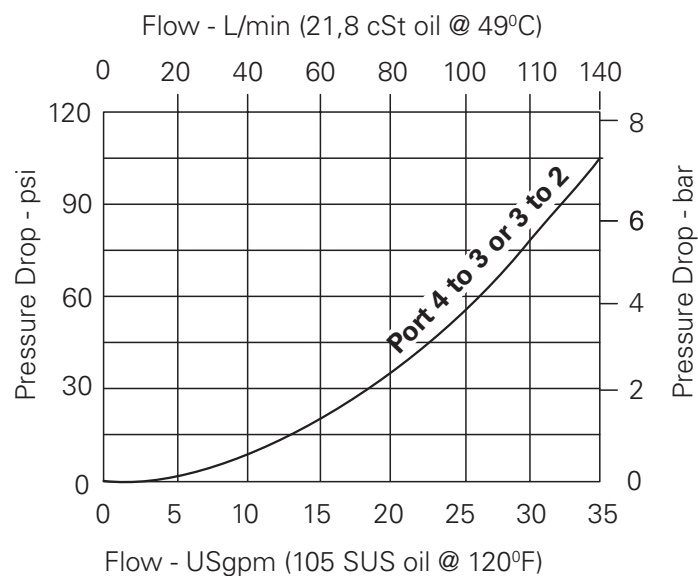
Where measurements are critical request certified drawings. We reserve the right to change specifications without notice.

PTS1 1-10/12/16 - Pilot to shift valve

Pilot operated, directional control valve
 PTS11-10: 30 L/min (8 USgpm) • 350 bar (5000 psi)
 PTS11-12: 76 L/min (20 USgpm) • 350 bar (5000 psi)
 PTS11-16: 132 L/min (35 USgpm) • 350 bar (5000 psi)

Pressure drop curves for - 16

Cartridge only



Model code

PTS11 - 10 (V) - * - *** - 00**

1 2 3 4 5 6

1 Function

PTS11 - Pilot to shift valve

2 Size

10 - 10 Size

3 Seals

Blank - Buna-N
V - Viton®

4 Port size

0 - Cartridge only

Code	Port size	Housing number
O		Aluminum fatigue rated Steel
A2G	1/4" BSPP	02-185804
A3G	3/8" BSPP	02-185805
A6H	SAE 6	02-185802
A8H	SAE 8	02-185803
S2G	1/4" BSPP	02-175127
S3G	1/3" BSPP	02-175128
S6T	SAE 6	02-175124
S8T	SAE 8	02-175125

5 Pilot to shift (nominal)

40 - 2,75 bar (40 psi)
80 - 5,5 bar (80 psi)
160 - 11,0 bar (160 psi)

6 Special features

00 - None

(Only required if valve has special features, omitted if "00")

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Model code

PTS11 - 12 (V) - **** - *** - 00

1 2 3 4 5 6

1 Function

PTS11 - Pilot to shift valve

2 Size

12 - 12 size

3 Seals

Blank - Buna-N

V - Viton®

4 Port size

0 - Cartridge only

Code	Port size	Housing number	
		Aluminum fatigue rated	Steel
A4G	1/2" BSPP	5986431-001	
A6G	3/4" BSPP	5986432-001	
A8H	SAE 8	5986433-001	
A10H	SAE 10	5986434-001	
A12H	SAE 12	5986436-001	
S6G	3/4" BSPP		5991073-001
S10H	SAE 10		5981074-001
S12H	SAE 12		5981075-001

See section J for housing details.

5 Pilot to shift (nominal)

80 - 5,5 bar (80 psi)

120 - 8,3 bar (120 psi)

6 Special features

00 - None (Only required if valve has special features, omitted if "00")

01 - External vent port with vent port option (SAE-4)

Model code

PTS11 - 16 - (V) - **** - *** - 00

1 2 3 4 5 6

1 Function

PTS11 - Pilot to shift valve

2 Size

16 - 16 size

3 Seals

Blank - Buna-N

V - Viton®

4 Port size

0 - Cartridge only

Code	Port size	Housing number		
		Aluminum light duty	Aluminum fatigue rated	Steel
0				
A12T	SAE 12	566411		
A6B	3/4" BSPP	02-175468		
A10H	SAE 10		876729	
A12H	SAE 12		876731	
A4G	1/2" BSPP		876728	
A6G	3/4" BSPP		876730	
S4G	1/2" BSPP			02-175143
S6G	3/4" BSPP			02-175144
S10T	SAE 10			02-175141
S12T	SAE 12			02-175142

5 Pilot to shift (nominal)

80 - 5,5 bar (80 psi)

160 - 11 bar (160 psi)

6 Special features

00 - Non (Only required if valve has special features, omitted if "00")

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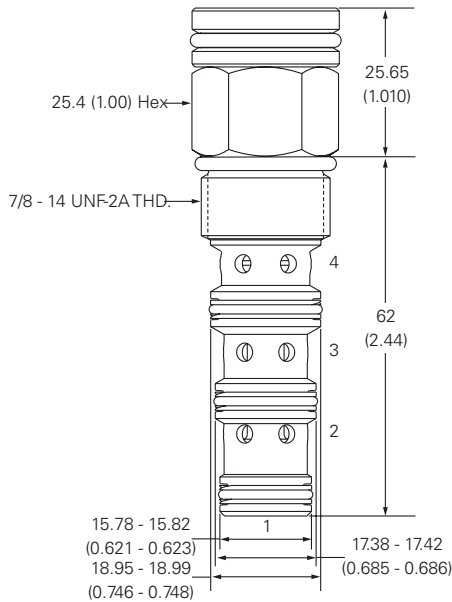
PTS1 1-16: 132 L/min (35 USgpm) • 350 bar (5000 psi)

PTS11-10

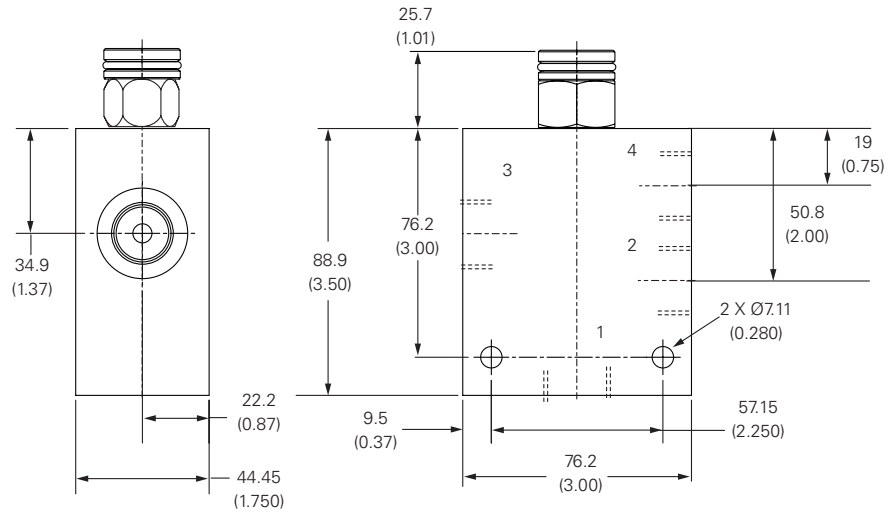
Dimensions

mm (inch)

Cartridge only

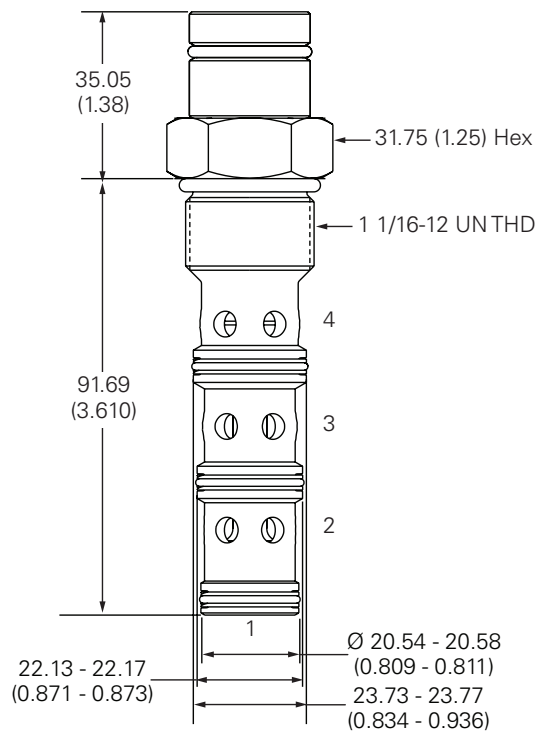


Installation drawing (steel)

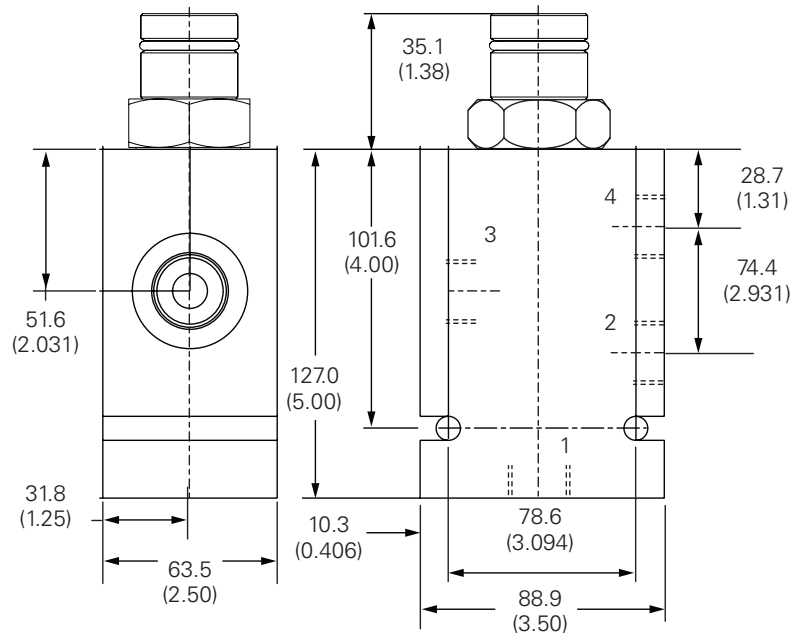


PTS11-12

Cartridge only



Installation drawing (steel)



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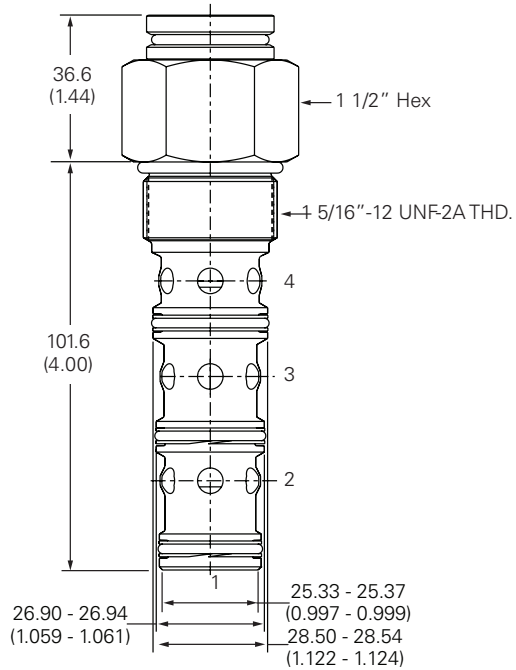
PTS1 1-16: 132 L/min (35 USgpm) • 350 bar (5000 psi)

PTS11-16

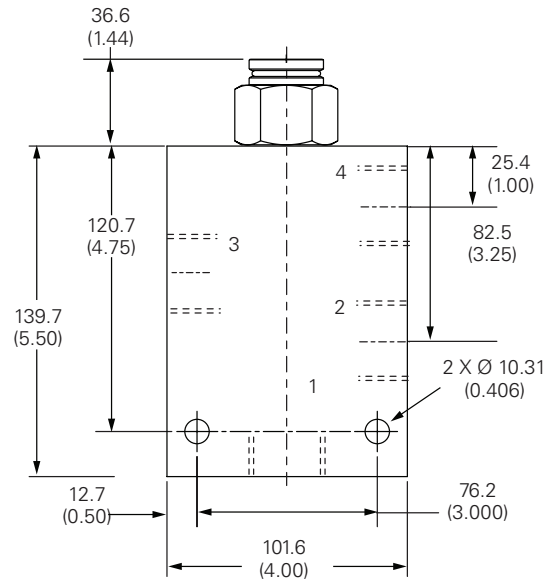
Dimensions

mm (inch)

Cartridge only



Installation drawing (steel)



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