

- > **Port size: 1/4"**
ISO G/NPT
- > **Suitable for gas/liquid applications**
- > **Suitable for tracking applications**



Technical features

Medium:

Gases or liquid
Integral 25 µm filter supplied for gas version only

Maximum inlet pressure:

210 barg (brass)
450 barg (stainless steel)

Outlet pressure range:

0 ... 0,7 barg (*1),
0 ... 2 barg,
0 ... 7 barg,
0,1 ... 10 barg

Typical flow — valve size:

Kv = 0,025 (Cv = 0,03) — 1/16"
Kv = 0,1 (Cv = 0,12) — 3/32"

Port size:

G1/4, 1/4 NPT, G1/8 or ø mm
(release port) G1/4 (gauge ports for ISO G and NPT versions)

Optional:

Relieving valve

Leakage:

Bubble tight (standard,
typically 10⁻⁶ atm.cm³/sec⁻¹)
Helium leak tested to 10⁻⁸
atm.cm³/sec⁻¹ (on request)

Ambient/Media temperature:

NBR:
-10 ... +100°C (+14 ... +212°F)
FPM:
-20 ... +150°C (-4 ... +302°F)
EPDM:
-30 ... +115°C (-22 ... +239°F)
PCTFE & Metal Diaphragm:
-40 ... +150°C (-40 ... +302°F)
(Stainless steel only)
Brass:
-40 ... +150°C (-40 ... +302°F)
Stainless steel:
-40 ... +150°C (-40 ... +302°F)

Materials:

Body: Brass BS EN 12164
CW614N or Stainless steel
BS EN 10088 1.4401
Spring housing: Aluminium
L168-T6511 or Stainless steel
BS EN 10088 1.4401
Seat: Stainless steel BS EN 10088
1.4401
Trim: PCTFE
Elastomer: NBR, FPM, EPDM,
PCTFE & Metal diaphragm
Handwheel: Plastic

*1) Inlet pressure restricted to 300 barg

Technical data, standard models - medium gases

Symbol	Port size	Outlet pressure range (barg)	Material Body	Seals	Weight (kg)	Model
	G1/4	0 ... 0,7	Brass	NBR	0,68	J20YR1E1EGN
	G1/4	0 ... 2	Brass	NBR	0,68	J20YR1E1JGN
	G1/4	0 ... 7	Brass	NBR	0,68	J20YR1E1NGN
	G1/4	0,1 ... 10	Brass	NBR	0,68	J20YR1E1PGN
	1/4 NPT	0 ... 0,7	Brass	NBR	0,68	J20YR1A1EGN
	1/4 NPT	0 ... 2	Brass	NBR	0,68	J20YR1A1JGN
	1/4 NPT	0 ... 7	Brass	NBR	0,68	J20YR1A1NGN
	1/4 NPT	0,1 ... 10	Brass	NBR	0,68	J20YR1A1PGN

Technical data, standard models - medium liquid

Symbol	Port size	Outlet pressure range (barg)	Material Body	Seals	Weight (kg)	Model
	G1/4	0 ... 0,7	Brass	NBR	0,68	J20YR1E1ELN
	G1/4	0 ... 2	Brass	NBR	0,68	J20YR1E1JLN
	G1/4	0 ... 7	Brass	NBR	0,68	J20YR1E1NLN
	G1/4	0,1 ... 10	Brass	NBR	0,68	J20YR1E1PLN
	1/4 NPT	0 ... 0,7	Brass	NBR	0,68	J20YR1A1ELN
	1/4 NPT	0 ... 2	Brass	NBR	0,68	J20YR1A1JLN
	1/4 NPT	0 ... 7	Brass	NBR	0,68	J20YR1A1NLN
	1/4 NPT	0,1 ... 10	Brass	NBR	0,68	J20YR1A1PLN

Option selector

J20 ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

Valve seat size	Substitute
1/16"	Y
3/32"	Z
Material	Substitute
Brass	R1
Stainless steel	A9
Port size	Substitute
G1/4	E1
1/4 NPT	A1
Outlet Pressure	Substitute
0 ... 0,7 barg (Max. inlet pressure 300 barg)	E
0 ... 2 barg	J
0 ... 7 barg	N
0,1 ... 10 barg	P

Spring Housing	Substitute
Not required	None
Differential	D
Adjuster options	Substitute
Not required	None
Locking	L
Limit stop	S
Relief	Substitute
Not required	None
Relief fitted	R
Elastomer	Substitute
NBR	N
FPM	V
EDPM	E
PCTFE & metal diaphragm	P
Liquid or gas use	Substitute
Liquid	L
Gas	G

Option selector spare kits

J20SPS ★ ★ ★ ★

Valve seat size	Substitute
1/16"	Y
3/32"	Z
Elastomer	Substitute
NBR	N
FPM	V
EPDM	E
PCTFE & metal diaphragm	P

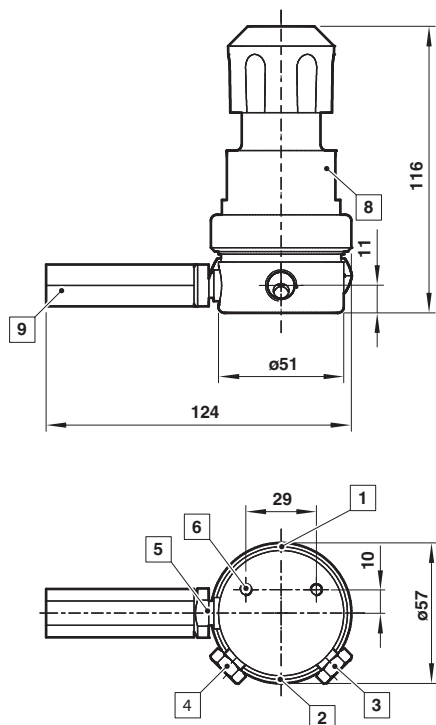
Spring Housing	Substitute
Not required	None
Differential	D
Liquid or gas use	Substitute
Liquid	L
Gas	G

Spares BOM

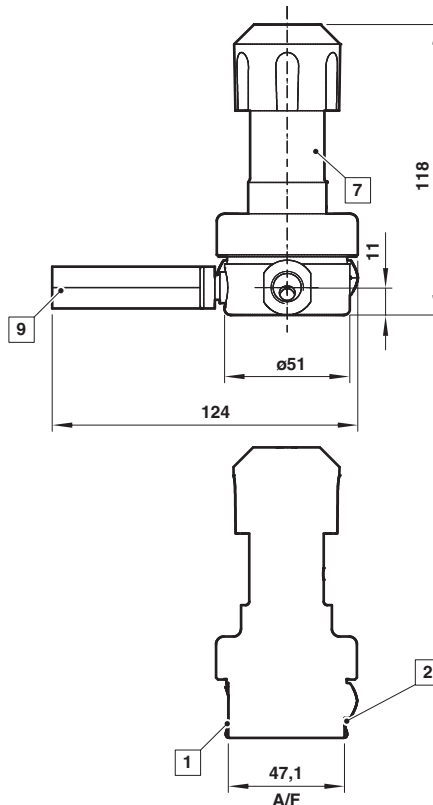
Description	Material	QTY	Basic spring housing (Non PCTFE)	Basic spring housing (PCTFE)	Differential spring housing (non PCTFE)	Differential spring housing (PCTFE)
O-Ring/Washer	Rubber/PCTFE	1	X	X	X	X
Valve capsule assy	Various	1	X	X	X	X
Diaphragm assy	Various	1	X	—	X	—
Gasket	PCTFE	2	—	X	—	X
Gasket	Composite	2	X	—	X	—
Metal diaphragm	St. Stl.	1	—	X	—	X
O-Ring	Rubber	1	—	—	X	X

Dimensions

Differential spring housing



Basic spring housing



Dimensions in mm
 Projection/First angle



- 1 Inlet port
- 2 Outlet port
- 3 G1/8 inlet gauge port
- 4 G1/8 outlet gauge port
- 5 G1/4 or 1/4 NPT port for relief valve
- 6 Mounting thread, M5 - 10 mm deep
- 7 8 mm vent
- 8 G1/8 relieving port
- 9 Optional relief valve

Accessories

Pressure relief valve



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P10 Relief Valve

Technical data, standard models - stainless steel version

Symbol	Port size	Pressure range (barg)	Weight (kg)	Model
	G1/4	0,69 ... 1,24	0,1	P10GA9F5PE10200
	G1/4	1,24 ... 2,76	0,1	P10KA9F5PE10200
	G1/4	2,76 ... 6,20	0,1	P10NA9F5PE10200
	G1/4	6,20 ... 13,8	0,1	P10QA9F5PE10200
	G1/4	13,8 ... 27,6	0,1	P10SA9F5PE10200

Technical data, standard models - brass version

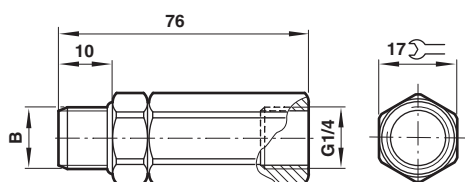
Symbol	Port size	Pressure range (barg)	Weight (kg)	Model
	G1/4	0,69 ... 1,24	0,1	P10GR1F5PE10200
	G1/4	1,24 ... 2,76	0,1	P10KR1F5PE10200
	G1/4	2,76 ... 6,20	0,1	P10NR1F5PE10200
	G1/4	6,20 ... 13,8	0,1	P10QR1F5PE10200
	G1/4	13,8 ... 27,6	0,1	P10SR1F5PE10200

Option selector

P10★★★★★PE10200			
Pressure range	Substitute	Inlet port size	Substitute
0,69 ... 1,24 (barg)	G	1/4 NPT	B5
1,24 ... 2,76 (barg)	K	G1/4	F5
2,76 ... 6,20 (barg)	N	3/8 NPT	B6
6,20 ... 13,8 (barg)	Q	G3/8	F6
13,8 ... 27,6 (barg)	S		
Material	Substitute		
Stainless steel	A9		
Brass	R1		

Note:
Relief valves can be adjusted to pressures in excess of, and less than, those specified. Do not use these units to control pressures outside of the specified ranges.

Dimensions



Dimensions in mm
Projection/First angle



B
1/4"
3/8"
1/2" x 24 WHIT.

Warning

Do not use these products where pressures and temperatures can exceed those listed under »**Technical features/data**«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI Precision Engineering, Thompson Valves Ltd.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.