

Pressure Sensor Fitting

- Very compact units
- Easy tube insertion for rapid assembly of pneumatic circuits
- Positive tube anchorage
- Simpler pneumatic systems
- Eliminates need for electrical reed switches



Technical Data

Medium:

Compressed air

Operating Pressure:

Cylinder pressure (Pc) 10 bar max Sensor supply pressure 3 - 10 bar Sensor switch pressure 1.0 bar typ.

Operating Temperature:

-20°C to +80°C

Body Ports

4mm Push-in Fittings 5/32" Push-in Fittings 1/8, 1/4 BSPP Banjo Bolt 1/8, 1/4 NPTF Banjo Bolt

Tube Sizes

4mm O/D

5/32" O/D

Tubing Types:

Nylon 11 or 12, polyurethane and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49-100

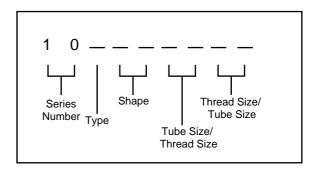
Materials

Delrin 100 and plastic parts
Glass filled nylon
Nickel plated brass collet
Nitrile and polyurethane elastomeric parts
Nickel plated brass banjo bolt

Ordering Information

To order, quote appropriate product number from the tables on the following pages.

Product numbering system is designed to make identification and selection simple:



102GD

124GD

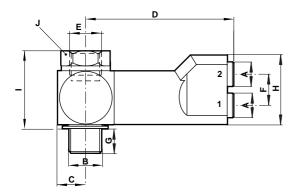






Pressure Sensor Fitting- 102GD

PIF x BSPP Banjo Bolt



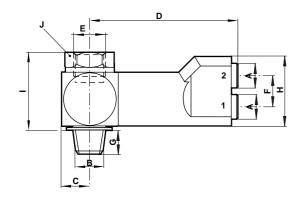
Product number	A O/D tube	B thread BSPP	С	D	E thread BSPP	F	G	Н	I	J A/F
102GD0418	4	1/8"	8,5	45,2	1/8"	9,5	5,6	21,0	24,9	15
102GD0428	4	1/4"	10,5	47,2	1/4"	9,5	6,5	21,0	29,0	19

This sensor fitting produces an end of stroke signal when exhaust back pressure in a cylinder decays below a set value. It should be mounted directly on the cylinder and can be used with a flow control device mounted into the top port.

It is recommended that the sensor supply pressure to port 1 be the same as the nominal working

Pressure Sensor Fitting- 124GD

PIF x NPTF Banjo Bolt



Product number	A O/D tube	B thread NPTF	С	D	E thread NPTF	F	G	Н	I	J A/F
124GD0218	5/32"	1/8"	8,5	45,2	1/8"	9,5	9,5	21,0	28,5	9/16"
124GD0228	5/32"	1/4 "	10,5	47,2	1/4"	9,5	14,3	21,0	33,7	3/4"

This sensor fitting produces an end of stroke signal when exhaust back pressure in a cylinder decays below a set value. It should be mounted directly on the cylinder and can be used with a flow control device mounted into the top port.

It is recommended that the sensor supply pressure to port 1 be the same as the nominal working

Warning

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exceed those listed under 'Technical Data'.

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Pilot Operated Check Valve (Blocking Fitting)

- Designed for direct cylinder mounting
- Safer pneumatic systems
- Push-in or threaded ports available
- Compact banjo design

Technical Data

Medium:

Compressed air

Operating Pressure:

1 - 10 bar

Operating Temperature:

-20°C to +80°C

Inlet Port:

4, 6, 8, 10, 12mm Push-in Fittings 1/4, 3/8, 1/2 Push-in Fittings 1/8, 1/4, 3/8, 1/2 NPTF Threaded Ports

Outlet Port:

1/8, 1/4, 3/8, 1/2 BSPP Thread 1/8, 1/4, 3/8, 1/2 NPTF Thread

Pilot Port:

M5 10-32" UNF

Tube Sizes

4, 6, 8, 10, 12mm O/D 1/4, 3/8, 1/2 O/D

Tubing Types:

Nylon 11 or 12, polyurethane and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49-100

Materials

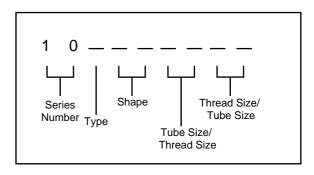
Nickel plated brass body Nickel plated brass collet Plastic sealing washer Nitrile and polyurethane elastomeric parts Zinc plated brass banjo bolts

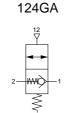


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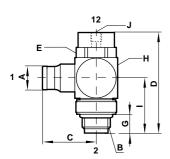
102GA





Pilot Operated Check Valve (Blocking Fitting) - 102GA

PIF x BSPP thread



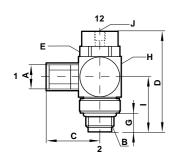
Product number	A O/D tube	B thread BSPP	С	D	E S	G	H SQ	I	J
102GA0418	4	1/8"	22,2	41,0	13	6,3	16	19,8	M5
102GA0618	6	1/8"	23,2	41,0	13	6,3	16	19,8	M5
102GA0628	6	1/4"	25,2	48,0	17	10,5	20	25,8	M5
102GA0828	8	1/4"	26,2	48,0	17	10,5	20	25,8	M5
102GA0838	8	3/8"	28,2	55,0	22	10,8	24	29,0	M5
102GA1038	10	3/8"	32,7	55,0	22	10,8	24	29,0	M5
102GA1248	12	1/2"	39,7	65,5	27	12,8	30	36,0	M5

- 1) Inlet Port
- 2) Outlet Port
- 12) Pilot Port

Note: For mounting in pairs on a cylinder

Pilot Operated Check Valve (Blocking Fitting) - 102GA

BSPP threaded port x BSPP thread



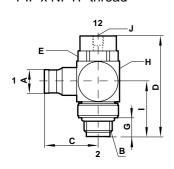
Product number	Body port A	B thread BSPP	С	D	E (Y)	G	H SQ	I	J
102GA1818	1/8 BSPP	1/8	17,5	41,0	13	6,3	16	19,8	M5
102GA1828	1/8 BSPP	1/4	20,0	48,0	17	10,5	20	25,8	M5
102GA2828	¹ / ₄ BSPP	1/4	24,5	48,0	17	10,5	20	25,8	M5
102GA3838	3/8 BSPP	3/8	27,0	55,0	22	10,8	24	29,0	M5
102GA4848	¹ / ₂ BSPP	1/2	34,0	65,5	27	12,8	30	36,0	M5

- 1) Inlet Port
- 2) Outlet Port
- 12) Pilot Port

Note: For mounting in pairs on a cylinder

Pilot Operated Check Valve (Blocking Fitting) - 124GA

PIF x NPTF thread



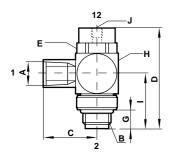
Product number	Body port	B thread NPTF	С	D	E (Y)	G	H SQ	I	J
124GA0418	1/4PIF	1/8	23,2	41,0	13	12,3	16	19,8	10-32"UNF
124GA0428	1/4PIF	1/4	25,2	48,0	17	16,3	20	25,8	10-32"UNF
124GA0638	3/8PIF	3/8	32,7	55,0	22	17,5	24	29,0	10-32"UNF
124GA0748	1/2PIF	1/2	39,7	65,5	27	22	30	36,0	10-32"UNF

- 1) Inlet Port
- 2) Outlet Port
- 12) Pilot Port

Note: For mounting in pairs on a cylinder

Pilot Operated Check Valve (Blocking Fitting) - 124GA

NPTF threaded port x NPTF thread



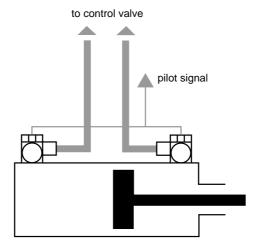
	Body port A	B thread NPTF	С	D	E &	G	H SQ	I	J
124GA1818	1/8NPTF	1/8	22,0	41,0	13	12,3	16	19,8	10-32"UNF
124GA2828	1/4NPTF	1/4	29,0	48,0	17	16,3	20	25,8	10-32"UNF
124GA3838	3/8NPTF	3/8	30,5	55,0	22	17,5	24	29,0	10-32"UNF
124GA4848	1/2NPTF	1/2	39,0	65,5	27	22	30	36,0	10-32"UNF

- 1) Inlet Port 2) Outlet Port
- 12) Pilot Port

Note: For mounting in pairs on a cylinder



Guidelines for Typical Installation

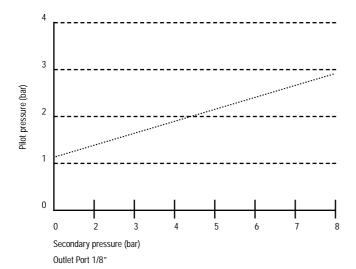


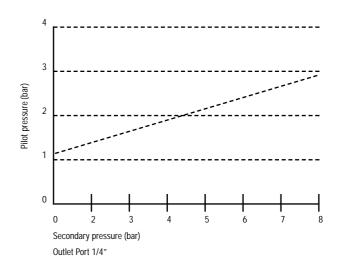
The pilot operated check valve should be mounted directly onto a cylinder.

This installation minimises the volume of air trapped in the system and gives the 'fastest' blocking response.

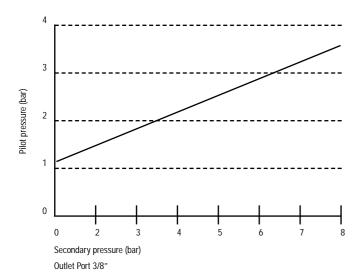
Pilot Pressure Characteristics

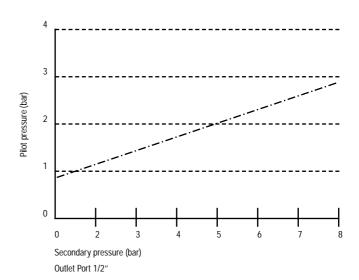
These charateristics were measured with pressure on port 2 (secondary pressure), but no pressure on port 1. The pilot pressure was gradually increased until the value opened.











Note:

The pilot signal pressure should be an on/off signal, rather than one that is allowed to decay slowly.

Flow Chart

Flow at 6 bar

Thread	Flow
Size	(I/m)
1/8"	289
1/4"	676
3/8"	1,156
1/2"	1,910

Warning

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Pressure Reducing Fitting

- Compact units
- System running cost savings by optimising cylinder pressure
- Designed for mounting on valves
- Push-in or threaded ports available
- Relief feature to protect against over pressure

Technical Data

Medium:

Compressed air

Operating Pressure:

Primary pressure 0 - 10 bar maximum Secondary pressure 1-8 bar maximum

Operating Temperature:

-20°C to +80°C

Outlet Port:

4, 6, 8, 10mm Push-in Fittings 5/32, 1/4, 5/16, 3/8, 1/2 Push-in Fittings 1/8, 1/4, 3/8, 1/2 NPTF Threaded Ports

Inlet Port:

1/8, 1/4, 3/8, 1/2 BSPP Thread 1/8, 1/4, 3/8, 1/2 NPTF Thread

Tube Sizes

4, 6, 8, 10mm O/D 5/32, 1/4, 5/16, 3/8, 1/2 O/D

732, 74, 716, 78, 72

Tubing Types:

Nylon 11 or 12, polyurethane and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49-100

Materials

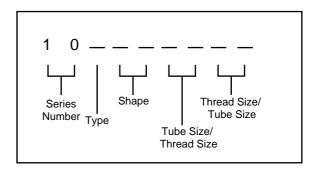
Nickel plated brass body
Nickel plated brass collet
Plastic sealing washer
Nitrile and polyurethane elastomeric parts
Zinc plated brass banjo bolt



Ordering Information

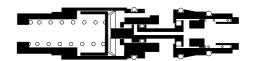
To order, quote appropriate product number from the tables on the following pages.

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102GB 124GB

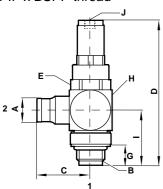




Pneumatic Function Fittings

Pressure Reducing Fitting - 102GB

PIF x BSPP thread



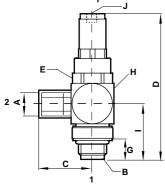
Product number	A O/D tube	B thread BSPP	С	D (max)	E (Y)	G	H SQ	I	J A/F
102GB0418	4	1/8"	22,5	73,0	17	6,3	16	19,8	5
102GB0628	6	1/4"	25,2	81	17	10,5	20	25,8	5
102GB0828	8	1/4"	26,2	81	17	10,5	20	25,8	5
102GB0838	8	3/8"	28,2	88	22	10,8	24	29,0	6
102GB1038	10	3/8"	32,7	88	22	10,8	24	29,0	6

- Inlet Port
 Outlet Port

Note: For mounting in ports 2 & 4 of a control valve

Pressure Reducing Fitting - 102GB

BSPP threaded port to BSPP thread



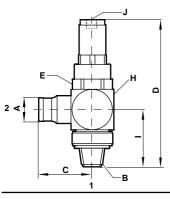
Product number	A Body Port	B thread BSPP	С	D (max)	E (5)	G	H SQ	I	J A/F
102GB1818	1/8 "BSPP	1/8"	17,5	73,0	17	6,3	16	19,8	5
102GB2828	1/4 "BSPP	1/4"	24,5	81,0	17	10,5	20	25,8	5
102GB3838	3/8"BSPP	3/8"	27,0	88,0	22	10,8	24	29,0	6
102GB4848	1/2 "BSPP	1/2"	34,0	89,0	27	9,5	30	36,0	6

- 1) Inlet Port
- 2) Outlet Port

Note: For mounting in ports 2 & 4 of a control valve

Pressure Reducing Fitting - 124GB

PIF x NPTF thread



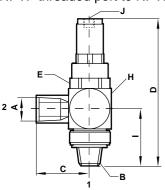
Product number	A O/D tube	B thread NPTF	С	D (max)	E (Y)	H SQ	Ι	J A/F
124GB0318	5/32 PIF	1/8	22,5	73,0	17	16	19,8	5
124GB0418	1/4 PIF	1/8	23,0	73,0	17	16	19,8	5
124GB0428	¹ / ₄ PIF	1/4	25,2	81,0	17	20	25,8	5
124GB0528	⁵ /16 PIF	1/4	26,2	81,0	17	20	25,8	5
124GB0538	⁵ /16 PIF	3/8	28,2	88,0	22	24	29	6
124GB0638	3/8 PIF	3/8	32,7	88,0	22	24	29	6
124GB0748	1/2 PIF	1/2	39,7	90,0	27	30	35	6

- 1) Inlet Port
- 2) Outlet Port

Note: For mounting in ports 2 & 4 of a control valve

Pressure Reducing Fitting - 124GB

NPTF threaded port to NPTF thread



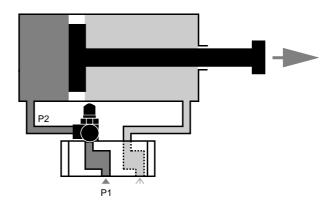
Product number	A Body Port	B thread NPTF	С	D (max)	E (S)	H SQ	(4)	J A/F
124GB1818	1/8 NPTF	1/8	21,0	73,0	17	16	19,8	5
124GB2828	¹ /4 NPTF	1/4	29,0	81,0	17	20	25,8	5
124GB3838	3/8 NPTF	3/8	31,5	88,0	22	24	29,0	6
124GB4848	¹ / ₂ NPTF	1/2	39.0	90.0	27	30	35.0	6

- 1) Inlet Port
- 2) Outlet Port

Note: For mounting in ports 2 & 4 of a control valve



Guidelines for Typical Installation

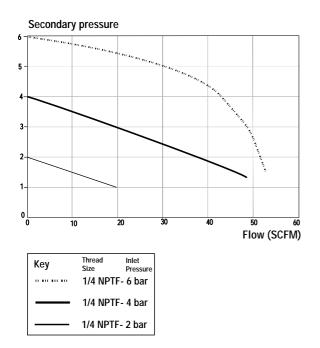


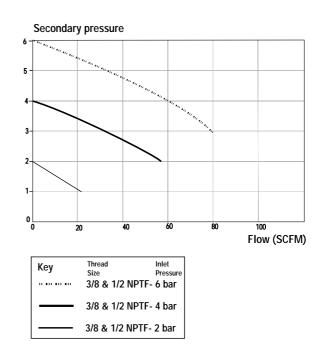
The regulator is designed to be mounted in the cylinder connection of a control valve. The adjustment screw is turned to set the operating pressure, clockwise rotation causes the operating pressure to increase, and an anticlockwise rotation causes the pressure to decrease.

The unit is designed to be self relieving so that, if the pressure rises above the required level, excess pressure is automatically vented.

Flow Characteristics

Inch Version

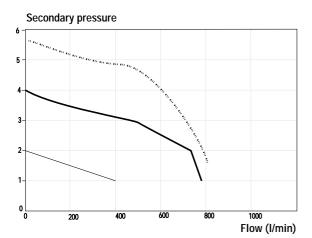


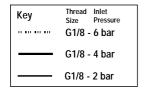


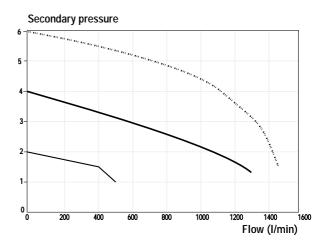


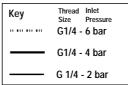
Flow Characteristics

Metric Version

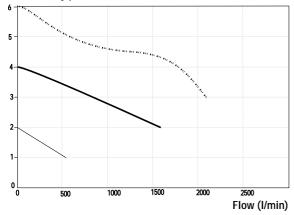


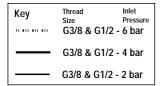












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Pilot Operated Check Valve (Blocking Fitting)

- Very compact units
- Positive tube anchorage
- Safer pneumatic systems

Technical Data

Medium:

Compressed air

Operating Pressure:

1 - 10 bar

Operating Temperature:

-20°C to +80°C

Inlet Port:

1/8, 1/4, 3/8, 1/2 BSPP Thread

Outlet Port:

1/8, 1/4, 3/8, 1/2 BSPP Thread

Signal Port:

M5

Tubing Types:

Nylon 11 or 12, polyurethane and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49-100

Materials

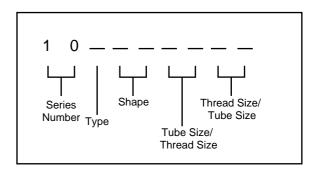
Nickel plated brass body Plastic sealing washer Nitrile and polyurethane elastomeric parts Zinc plated brass banjo bolts



Ordering Information

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102GA

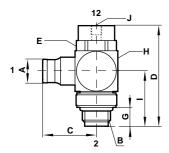






Pilot Operated Check Valve (Blocking Fitting) - 102GA

Female to male BSPP thread



Product number	Body port A	B thread NPTF	С	D	E S	G	H SQ	I	J
102GA1818	1/2BSPP	1/2	17,5	41,0	13	6,3	16	19,8	M5
102GA1828	1/4BSPP	1/4	20,0	48,0	17	10,5	20	25,8	M5
102GA2828	1/4BSPP	1/4	24,5	48,0	17	10,5	20	25,8	M5
102GA3838	3/8BSPP	3/8	27,0	55,0	22	10,8	24	29,0	M5
102GA4848	1/2BSPP	1/2	34,0	65,5	27	12,8	30	36,0	M5

- 1) Inlet Port
- 2) Outlet Port 12) Signal Port

Note: For mounting in pairs on a cylinder

Warning

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..... 11/99 X400 9.11.002.02



Pressure Reducing Fitting

- Compact units
- System running cost savings by optimising cylinder pressure
- Designed for mounting on valves
- Push-in or threaded ports available
- Relief feature to protect against over pressure

Technical Data

Medium:

Compressed air

Operating Pressure:

Primary pressure 0 - 10 bar maximum Secondary pressure 1-8 bar maximum

Operating Temperature:

-20°C to +80°C

Outlet Port:

4, 6, 8, 10mm Push-in Fittings 5/32, 1/4, 5/16, 3/8, 1/2 Push-in Fittings 1/8, 1/4, 3/8, 1/2 NPTF Threaded Ports

Inlet Port:

1/8, 1/4, 3/8, 1/2 BSPP Thread 1/8, 1/4, 3/8, 1/2 NPTF Thread

Tube Sizes

4, 6, 8, 10mm O/D

5/₃₂, 1/₄, 5/₁₆ ,3/₈, 1/₂ O/D

Tubing Types:

Nylon 11 or 12, polyurethane and other plasticised or unplasticised tubing which conforms to the tolerances specified in BS 5409, Part 1, 1976, light and normal duty, DIN 73378, DIN 74234, NFE 49-100

Materials

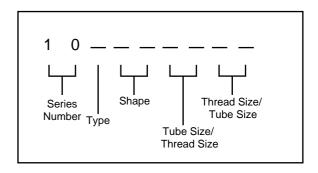
Nickel plated brass body
Nickel plated brass collet
Plastic sealing washer
Nitrile and polyurethane elastomeric parts
Zinc plated brass banjo bolt



Ordering Information

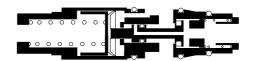
To order, quote appropriate product number from the tables on the following pages.

Product numbering system is designed to make identification and selection simple:



102GB 124GB

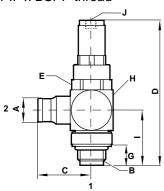




Pneumatic Function Fittings

Pressure Reducing Fitting - 102GB

PIF x BSPP thread



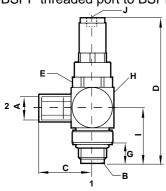
Product number	A O/D tube	B thread BSPP	С	D (max)	E S	G	H SQ	I	J A/F
102GB0418	4	1/8"	22,5	73,0	17	6,3	16	19,8	5
102GB0628	6	1/4"	25,2	81	17	10,5	20	25,8	5
102GB0828	8	1/4"	26,2	81	17	10,5	20	25,8	5
102GB0838	8	3/8"	28,2	88	22	10,8	24	29,0	6
102GB1038	10	3/8"	32,7	88	22	10,8	24	29,0	6

- Inlet Port
 Outlet Port

Note: For mounting in ports 2 & 4 of a control valve

Pressure Reducing Fitting - 102GB

BSPP threaded port to BSPP thread



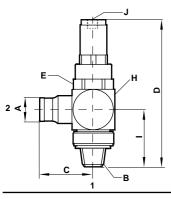
Product number	A Body Port	B thread BSPP	С	D (max)	E (5)	G	H SQ	I	J A/F
102GB1818	1/8" BSPP	1/8"	17,5	73,0	17	6,3	16	19,8	5
102GB2828	1/4" BSPP	1/4"	24,5	81,0	17	10,5	20	25,8	5
102GB3838	3/8" BSPP	3/8"	27,0	88,0	22	10,8	24	29,0	6
102GB4848	1/2" BSPP	1/2"	34,0	89,0	27	9,5	30	36,0	6

- 1) Inlet Port
- 2) Outlet Port

Note: For mounting in ports 2 & 4 of a control valve

Pressure Reducing Fitting - 124GB

PIF x NPTF thread



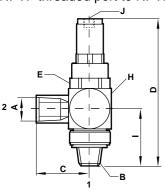
Product number	A O/D tube	B thread NPTF	С	D (max)	E (Y)	H SQ	Ι	J A/F
124GB0318	5/32 PIF	1/8	22,5	73,0	17	16	19,8	5
124GB0418	1/4 PIF	1/8	23,0	73,0	17	16	19,8	5
124GB0428	¹ / ₄ PIF	1/4	25,2	81,0	17	20	25,8	5
124GB0528	⁵ /16 PIF	1/4	26,2	81,0	17	20	25,8	5
124GB0538	⁵ /16 PIF	3/8	28,2	88,0	22	24	29	6
124GB0638	3/8 PIF	3/8	32,7	88,0	22	24	29	6
124GB0748	¹ /2 PIF	1/2	39,7	90,0	27	30	35	6

- 1) Inlet Port
- 2) Outlet Port

Note: For mounting in ports 2 & 4 of a control valve

Pressure Reducing Fitting - 124GB

NPTF threaded port to NPTF thread



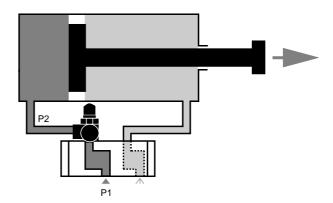
Product number	A Body Port	B thread NPTF	С	D (max)	E (S)	H SQ	- 8	J A/F
124GB1818	1/8 NPTF	1/8	21,0	73,0	17	16	19,8	5
124GB2828	¹ /4 NPTF	1/4	29,0	81,0	17	20	25,8	5
124GB3838	3/8 NPTF	3/8	31,5	88,0	22	24	29,0	6
124GB4848	¹ / ₂ NPTF	1/2	39,0	90,0	27	30	35,0	6

- 1) Inlet Port
- 2) Outlet Port

Note: For mounting in ports 2 & 4 of a control valve



Guidelines for Typical Installation

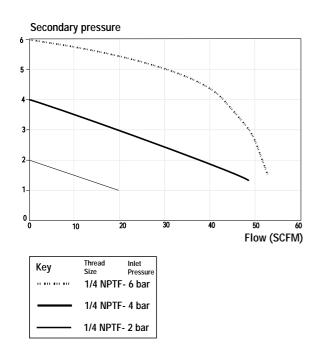


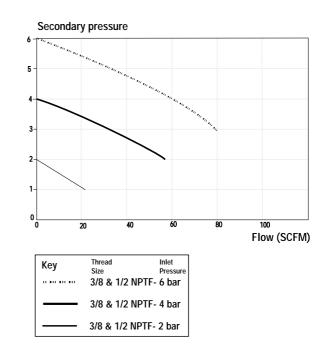
The regulator is designed to be mounted in the cylinder connection of a control valve. The adjustment screw is turned to set the operating pressure, clockwise rotation causes the operating pressure to increase, and an anticlockwise rotation causes the pressure to decrease.

The unit is designed to be self relieving so that, if the pressure rises above the required level, excess pressure is automatically vented.

Flow Characteristics

Inch Version

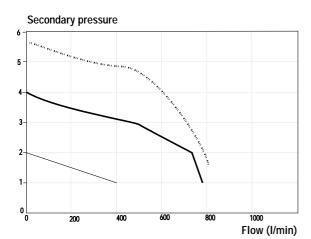


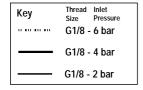


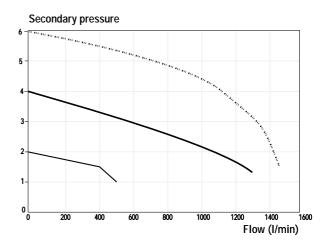


Flow Characteristics

Metric Version

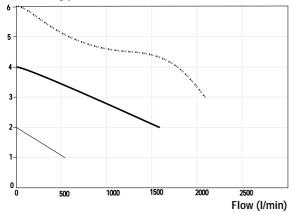














Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where *pressures* and *temperatures* can exceed those listed under '**Technical 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 Norgren.

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 where applicable.