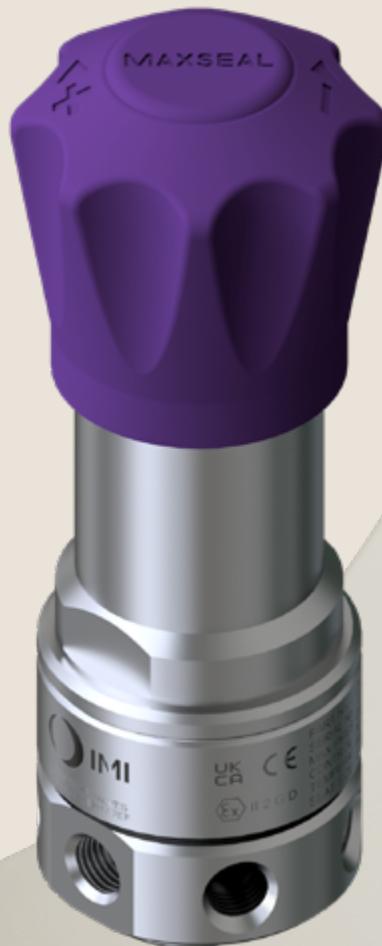




Process
Automation

Our product brand:
IMI Maxseal

L70 Series 1/4" Back Pressure Regulator



Breakthrough
engineering for
a better world



IMI manufactures high-performance pneumatic and hydraulic technology for both valve automation and direct control of process media.

Our range of actuators instrumentation, and smart positioners are complimented by wireless IoT sensors and asset monitoring software. Renowned for faultless reliability in arduous conditions, our solutions are depended upon to deliver safe and efficient automation while delivering breakthrough engineering for a better world.

L70 Series

1/4" Back Pressure Regulator

- Port size: 1/4" NPT
- High pressure regulation providing a wide range of back pressure control
- Up to 700 bar inlet pressure
- Heavy duty construction, accurate and reliable, ideal for high and low pressure applications
- 2.4 mm valve seat provides stable upstream pressure control
- Low friction piston for increased sensitivity and better control at lower pressure ranges
- Temperature rating down to -50 °C
- Certifications: ATEX 94/9/EC, PED 2014/68/EU



Technical features

Medium:
Gas or liquid (for liquid applications contact Sales)

Flow:
Cv Kv
0.15 0.13
Cv is USgpm for 1 psi Δp
Kv is m³/hr for 1 bar Δp

Leakage:
ANSI/FCI 70-3 Class VI and API 598

Envelope (LxWxH):
69 x 69 x 196

Port Size:
1/4" NPT

Gauge Port:
3 x 1/4" NPT - optional configurations

Pressure Range:

bar	psi
2 ... 20	29 ... 290
5 ... 50	72 ... 725
10 ... 100	145 ... 1450
20 ... 200	290 ... 2900
40 ... 414	600 ... 6000
70 ... 700	1015 ... 10150

Temperature Range:

	°C	°F
NBR	-10 ... +100	14 ... +212
FKM	-20 ... +100	-4 ... +212
EPDM	-30 ... +100	-22... +212
Low temp. NBR	-50 ... +100	-58... +212

Extended temperature ranges available - contact sales

Materials:
Valve body: SS 316L
Trim: SS 316L
Valve spring: SS 316, Inconel X750
Set spring: SS 302
Seals: NBR, FKM, EPDM, Low temperature NBR
Seat: Polyamide

Features:
1/8" NPT vent to monitor seal integrity
Panel mounting - optional kit

Options:
Tamper-proof stem cap
NACE MR0175/ISO 15156 compliant
Clean to ASTM G93 level C
Limit stop for pressure control range

Technical data

Maximum Inlet Pressure: bar (psi)	414 (6000) SP version 700 (10150) HP version
Maximum Inlet Control Pressure: bar (psi)	414 (6000) SP version 700 (10150) HP version
Sensing Type:	Piston
Seat Diameter: mm	2.2
Connection Options:	1/4" NPT
Gauge / Vent Connections:	Gauge: 1/4" NPT Vent: 1/8" NPT
Weight: kg (lb)	1.8 (4)



Option selector

Build an L70 series regulator ordering number by combining the designators in the sequence shown below.

Example part number:

1	2	3	4	5	6	7	8	9	10	11	12	13
L70	A9	A1	S	W	N	N	A	H	0	0	P	0

1 Model	5 Control Pressure Range	7 Elastomers	9 Handwheel	11 NACE
1/4" Spring Loaded Regulator L70	bar psi	NBR N	Standard H	None 0
	2 ... 20 29 ... 290 R	FKM V	Handwheel with limit stop L	NACE N
2 Body Material	5 ... 50 72 ... 725 W	EPDM E	Tamper proof T	
Stainless Steel A9	10 ... 100 145 ... 1450 Y	Low temp NBR Q		12 Panel Mounting
	20 ... 200 290 ... 2900 3		10 Filter	None 0
3 Port Size	40 ... 414 600 ... 6000 6	8 Port Locations**	None 0	With panel mounting P
1/4" NPT A1	70 ... 700* 1015 ... 10150* 9	A		
		B		13 Cleanliness
4 Max Inlet Pressure	6 Relieving	C		Standard 0
bar psi	Non-relieving N	D		ASTM G93 level C ¹ C
414 6000 S				Hydrogen ¹ H
700* 10150* H				

* HP version only

** See port configurations

¹ Operating range for certain applications may be limited by assembly chemicals - details on request

Spares option selector

Example part number:

1	2	3	4	5	6	7	8	9	10
L70	S	S	W	N	N	H	0	0	0

1 Model	4 Outlet Pressure Range	6 Elastomers	8 Filter
1/4" Spring Loaded Regulator L70	bar psi	NBR N	None 0
	2 ... 20 29 ... 290 R	FKM V	
2 Type	5 ... 50 72 ... 725 W	EPDM E	9 NACE
Spares S	10 ... 100 145 ... 1450 Y	Low temp NBR Q	None 0
	20 ... 200 290 ... 2900 3		NACE (non-relieving) N
3 Max Inlet Pressure	40 ... 414 600 ... 6000 6	7 Handwheel	
bar psi	70 ... 700* 1015 ... 10150* 9	Standard H	10 Cleanliness
414 6000 S		Handwheel with limit stop L	Standard 0
700* 10150* H	5 Relieving	Tamper proof T	ASTM G93 level C ¹ C
	Non-relieving N		Hydrogen ¹ H

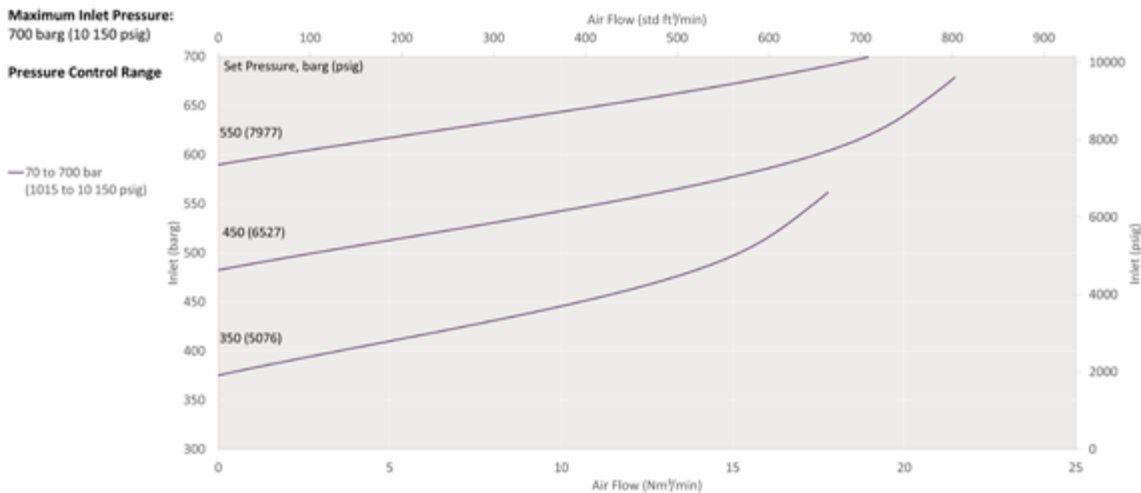
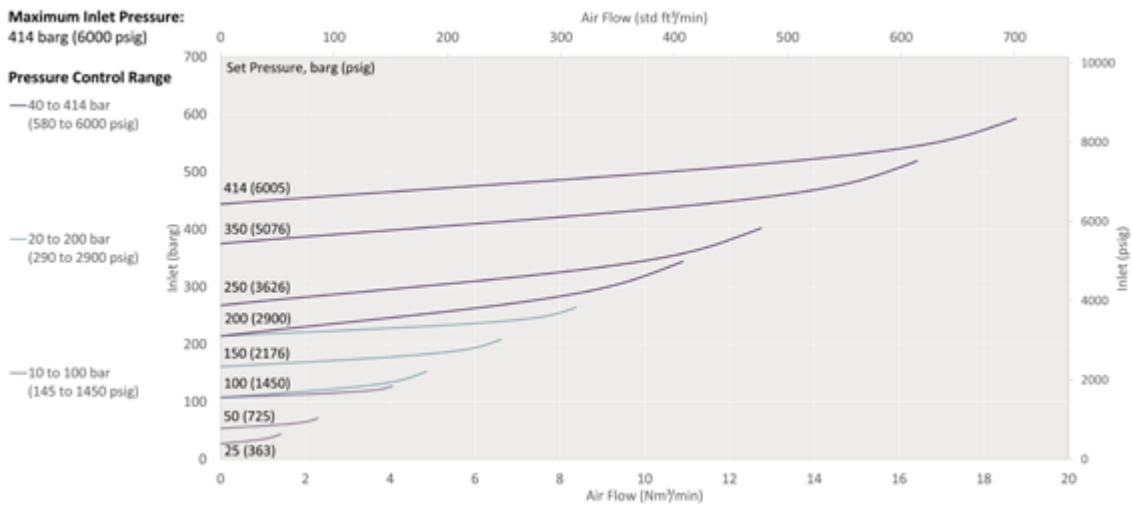
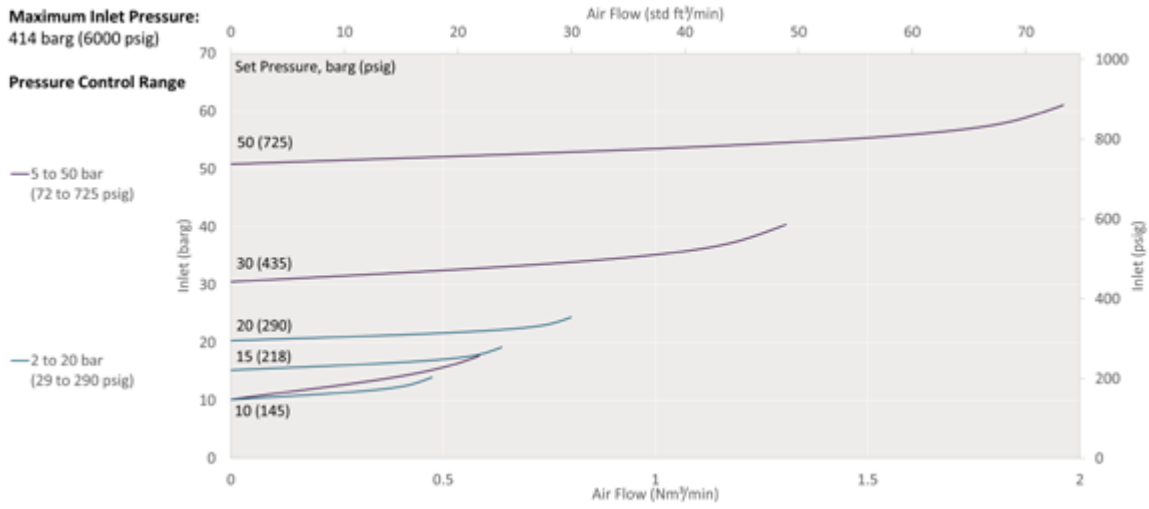
* HP version only

¹ Operating range for certain applications may be limited by assembly chemicals - details on request



Flow data

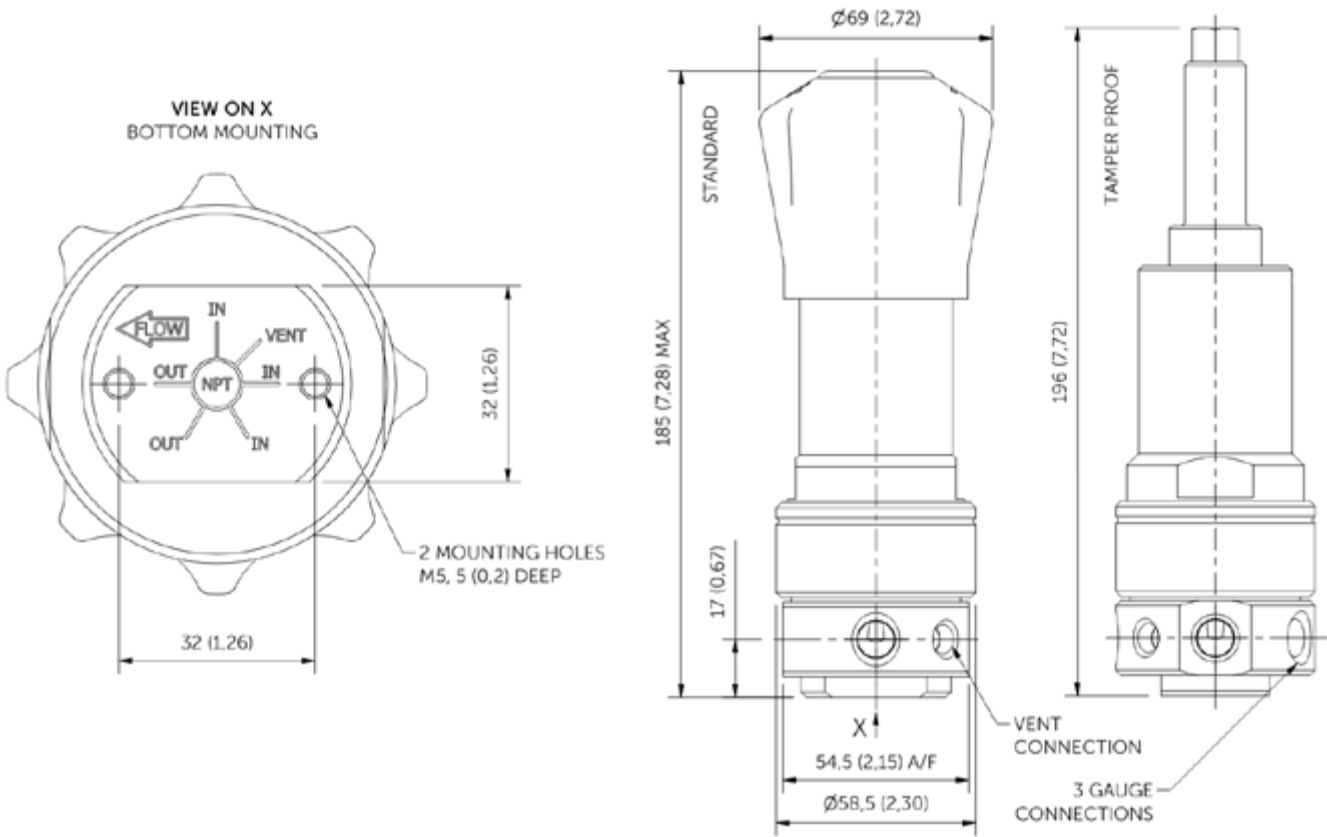
The graphs are representations of the change in inlet pressure as the flow rate increases. For more flow curves - see flow curve tool or contact sales.



WARNING: Flow curves are generated from data collected under laboratory conditions which may not be fully representative of real-world applications. Real-world valve performance may vary from the curve presented. Tests are conducted using air at 20°C with an assumed fixed density of 1.2 kg/m³.

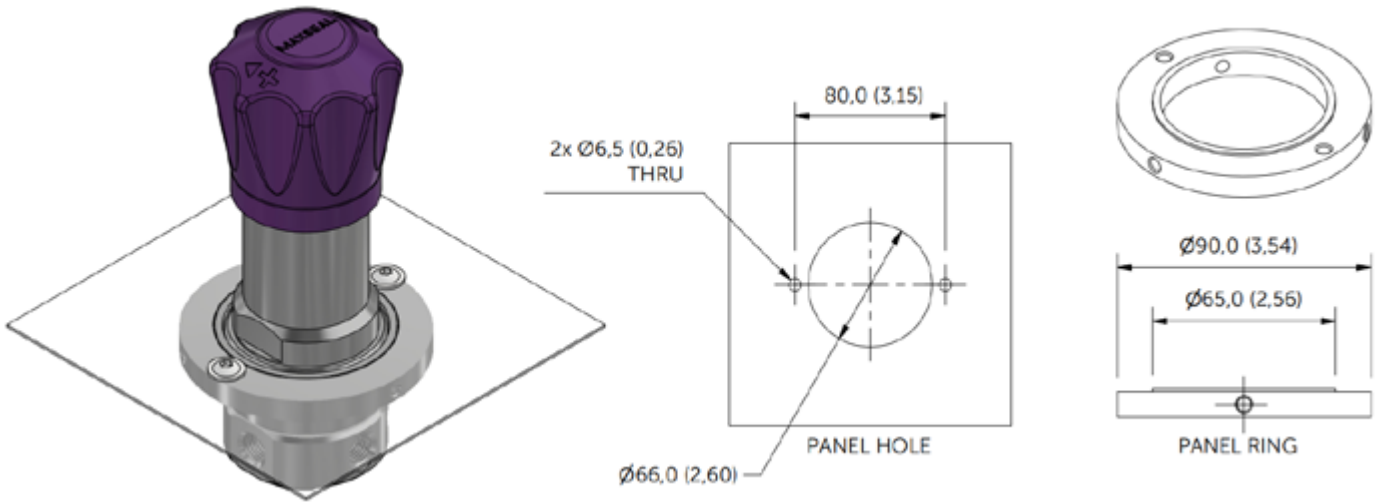
Dimensions

Dimensions in mm (inches)
 projection/third angle

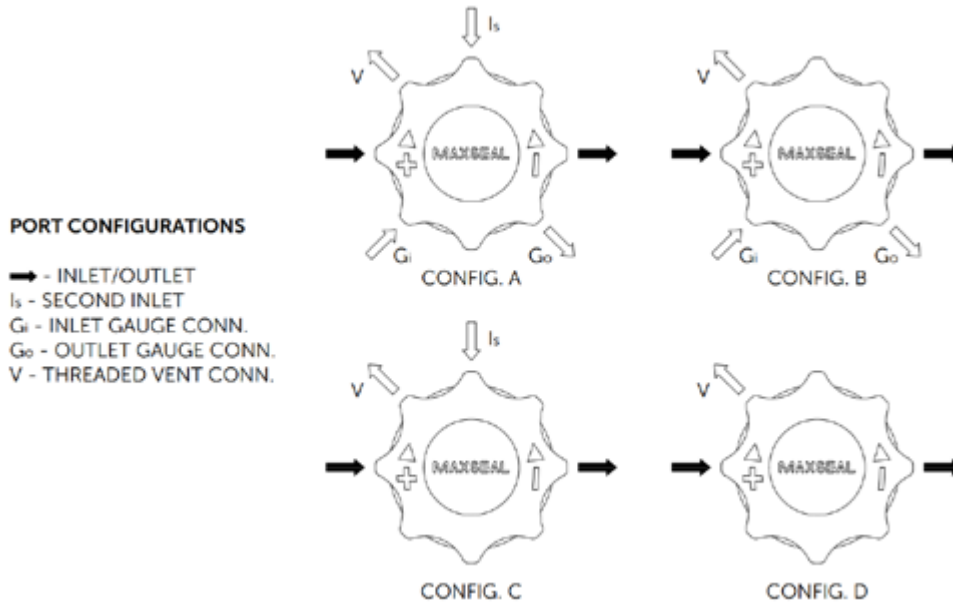


Dimensions are for reference only and are subject to change.

Panel mounting



Port configurations



Warning

Do not use these products where pressures and temperatures can exceed those listed under Technical Features and Technical Data.

The end user is responsible for ensuring media compatibility with the product. If in doubt, consult Thompson Valves Ltd.

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 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.

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For further information, scan the QR code or contact sales.thompson@imi-critical.com



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