

TECHLINE COMPLETE RANGE

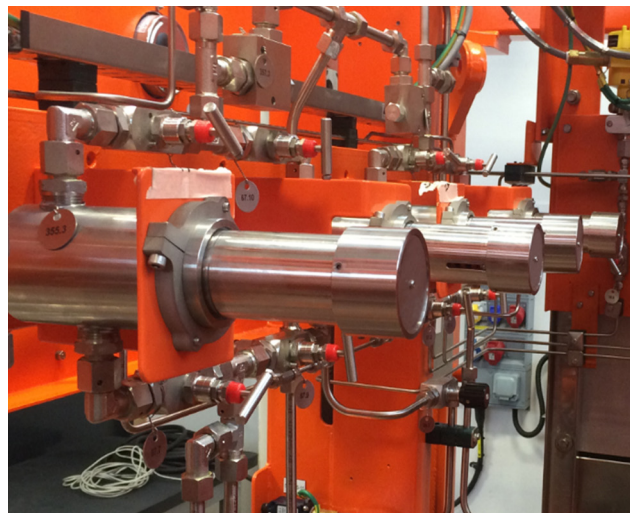


GCE DRUVA TECHLINE

The GCE druva TECH LINE is the industrial gas and hydraulic pressure regulator line. It is a broad line of pressure reducing regulators and back pressure regulators, which can be operated by hand, by use of a dome or air-actuated. The gas purity is maximum 5.0. Regulators are diaphragm and piston sensed. To best cover customer needs, there is ample choice of Cv values, seat materials, O-rings and seals. Besides standard solutions, customer specific requests can be fulfilled as well. Quality wise, the range fulfills many industry specific standards and its heated regulator range is ATEX-approved.

TYPICAL HYDRAULIC APPLICATIONS ARE:

- > Hydraulic Power Unit (HPU)
- > Wellhead Control Panel
- > SC-SSV – Surface Controlled Subsurface Safety Valve
- > Blowout Preventer
- > Accumulators
- > Umbilical Reels
- > IWOCS – Intervention Work Over Control System
- > Hydraulic Seals / Seal protection – Injection & Production Lines (FPSO)
- > Valve Automation Systems, Choke Control, ESD Systems, and Actuators
- > Test & Calibration Systems
- > ROV Control
- > Fuel & Lubrication Systems



GCE druva is a synonym for quality, user-friendliness, and customer service. The company now exists for 50 years and has gained its place as a market leader in the gas supply systems industry. GCE druva has global coverage and a team of in depth experts. Besides selling regulators & valves, we advise customers on applications and product use. Our regulators are used in complete systems and as single units for gas changeover or in line.

A FEW EXAMPLES OF GAS APPLICATIONS ARE:

- > Laboratories & research centers
- > Analytical & pilot plants
- > Heated regulator for gas sample systems
- > Diving & Life Support
- > Pneumatic / hydraulic seals & tank control
- > Valve / Emergency Shutdown system control
- > Testing & Calibration
- > Gas Bottle Racks – central gas supply
- > Hydrogen – up to 1380bar



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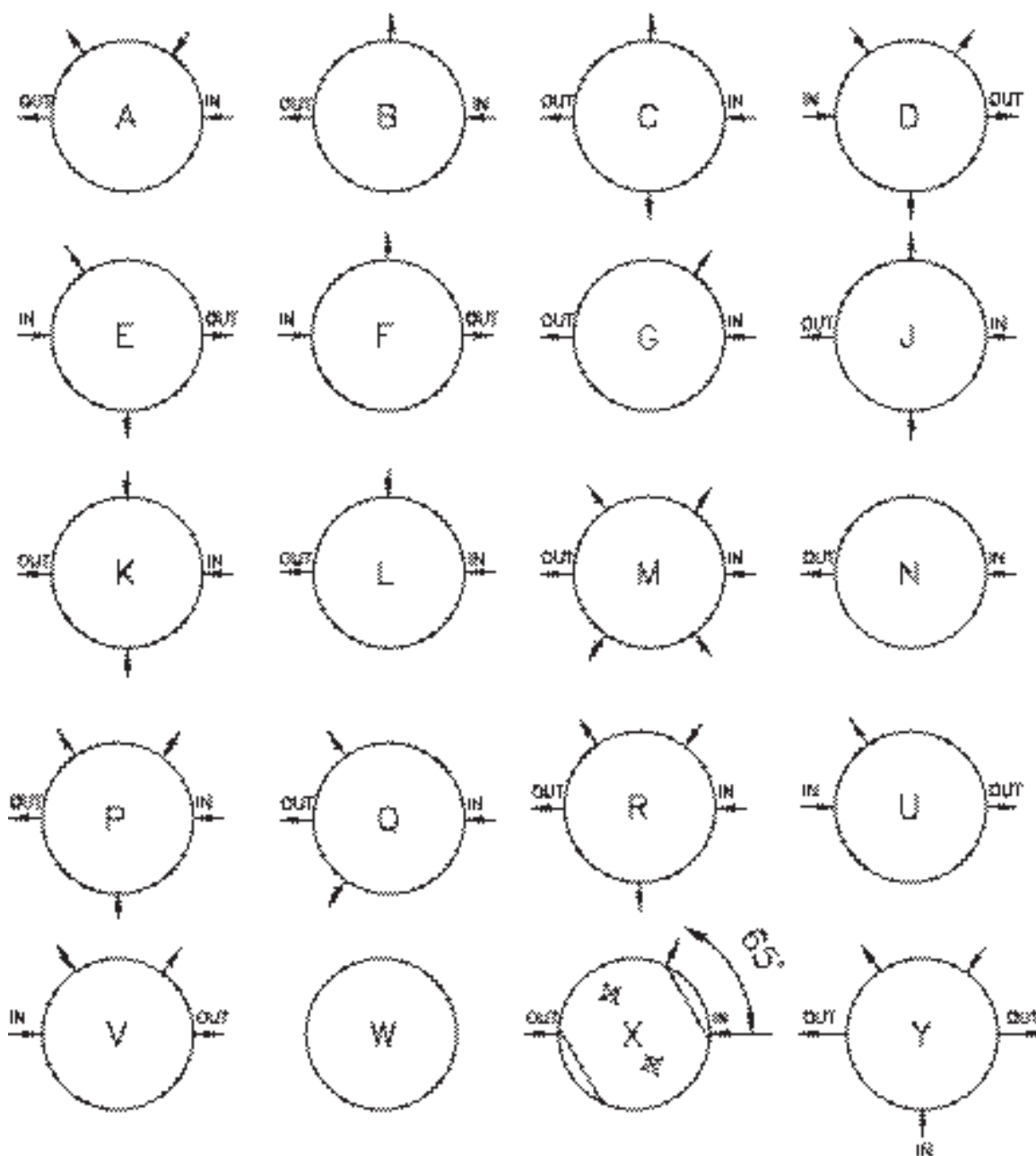
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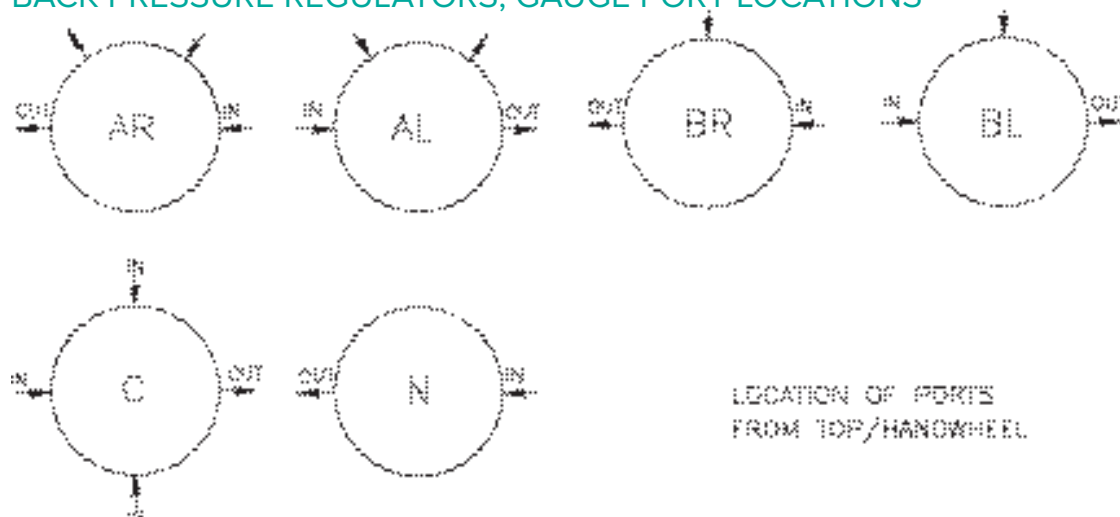
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FORWARD REDUCING REGULATORS, GAUGE PORT LOCATIONS



Location of ports from TOP/HANDWHEEL

BACK PRESSURE REGULATORS, GAUGE PORT LOCATIONS

LOCATION OF PORTS
FROM TOP/HANDWHEEL

QUICK REFERENCE OVERVIEW

Article no.	Description / Features	Sensing element D-Diaphragm P-Piston	Body material B-Brass S-316SS Hastelloy R – 17-4PH SS	Max inlet Bar (Psi)	Max outlet Bar (Psi)	Fluid	Cv	Port-size	Self-venting / Non-venting
MINI-300	Compact low flow, dome loaded option	P	B - S	300 (4350)	100 (1450)	Gas	0,03 - 0,06 – 0,15	1/8" NPT	NV
LF-230	Low flow with sensitive elastomeric diaphragm	D	S	230 (3340)	10 (145)	Gas	0,06	1/4" NPT	NV
LF-300	Inconel diaphragm & cone seat	D	B - S	300 (4350)	35 (507)	Gas	0,06	1/4" NPT	NV
LF-310	Inconel diaphragm & solid disk seat	D	S	414 (6000)	35 (507)	Gas	0,06	1/4" NPT	NV
TS-300	Two-stage regulator with Inconel diaphragm & cone seat	D	B - S	300 (4350)	25 (360)	Gas	0,06	1/4" NPT	NV

PRESSURE REGULATORS CV 0,06 – 0,2

LF-301	Low flow piston sensed	P	B - S	300 (4350)	180 (2600)	Gas	0,06	1/4" NPT	NV
LF-540	pilot regulator option	P	B - S	550 (8000)	414 (6000)	Gas	0,1 & 0,2	1/4" & 3/8" NPT	SV & NV
LF-692	20.000psi option, low pressure hydraulic options, air actuated option	P	S	1380 (20.000)	1380 (20.000)	Gas	0,1	1/4" NPT to 9/16" MP	SV & NV

PRESSURE REGULATORS CV 0,5 – 2,0

MF-101	Unbalanced & Balanced option	P	B - S	Unbalanced - 100 (1450) Balanced 414 (6000)	Unbalanced - 35 (507) Balanced – 50 (725)	Gas	0,5	1/4" NPT	SV & NV
MF-230	Elastomeric diaphragm	D	S	210 (3045)	10 (145)	Gas	1,0	1/2" NPT	NV
MF-231	Piston sensed option	P	S	210 (3045)	50 (725)	Gas	1,0	1/2" NPT	NV
MF-301	sensitive piston with balanced main valve, air actuated option	P	B - S	300 (4350)	200 (2900)	Gas	2,0	1/2" or 3/4" NPT	SV & NV
MF-400G - Diaphragm	sensitive diaphragm sensed	D	S	400 (5800)	10 (145)	Gas	2,0	1/2" / 3/4" NPT & BSP	NV
MF-400H Diaphragm	sensitive diaphragm, PEEK	D	S	400 (5800)	10 (145)	Hydraulic	2,0	1/2" / 3/4" NPT & BSP	NV
MF-401G - Piston	PCTFE	P	S	50 (725) or 400 (5800)	300 (4350)	Gas	2,0	1/2" / 3/4" NPT & BSP	NV
MF-401H - Piston	PEEK	P	S	50 (725) or 400 (5800)	300 (4350)	Hydraulic	2,0	1/2" / 3/4" NPT & BSP	NV
MF-414G	sensitive piston sensed	D	S	414 (6000)	414 (6000)	Gas	2,0	1/2" 3/4" 1" NPT & 1/2" BSP	SV - NV

PRESSURE REGULATORS CV 4,0 – 12,0

HF-300G		D	S	300 (4350)	10 (145)	Gas	4,0	3/4" 1" NPT & BSP	NV
HF-300H		D	S	300 (4350)	10 (145)	Hydraulic	4,0	3/4" 1" NPT & BSP	NV
HF-301G		P	S	50 (725) or 300 (4350)	250 (3600)	Gas	4,0	3/4" 1" NPT & BSP	NV
HF-301H		P	S	50 (725) or 300 (4350)	250 (3600)	Hydraulic	4,0	3/4" 1" NPT & BSP	NV
HF-250G	Dome loaded option		S	250 (3600)	10 (145)	Gas	7,0	1" NPT & BSP, DN25	NV

Article No.	Description	Sensing element D-Diaphragm B-Bellow P-Piston	Body material B-Brass S-316SS	Max Inlet bar/psi	Max Outlet bar(psi)	Fluid	Cv	Port-size	Self-venting / Non-venting
HF-250H	Dome loaded option	D	S	250 (3600)	10 (145)	Hydraulic	7,0 & 12,0	1" NPT & BSP, DN25	NV
HF-251G	Dome loaded option	P	S	50 (725) or 300 (4350)	250 (3600)	Gas	7,0 & 12,0	1" NPT & BSP, DN25	NV
HF-251H	Dome loaded option	P	S	50 (725) or 300 (4350)	250 (3600)	Hydraulic	7,0 & 12,0	1" NPT & BSP, DN25	NV

HYDRAULIC REGULATORS CV 0,05 – 2,0

HYD-691	Economical alternative to LF690/691 incl ceramic seat	P	S	690 (10.000)	690 (10.000)	Hydraulic	0,06	¼" 3/8" ½" NPT, 3/8" MP	SV - NV
LGC-690	Logic control	P	S	414 (6000)	15 (218)	Hydraulic	0,3	¼" 3/8" ½" NPT	SV
LF-690	Air actuated option	P	S	690 (10.000)	690 (10.000)	Hydraulic	0,05 – 0,1 – 0,3	¼" 3/8" ½" 9/16" NPT, MP & ½" SAE- ORB	SV - NV
LF-691	Max outlet 1080 (15.600), air actuated option	P	S	1034 (15.000) or 1380 (20.000)	1034 (15.000) or 1080 (15.600)	Hydraulic	0,05 – 0,1 – 0,3	¼" 3/8" ½" 9/16" NPT, MP & ½" SAE- ORB	SV - NV
MF-414H	Air actuated option	P	S	414 (6000)	414 (6000)	Hydraulic	2,0	½" ¾" 1" NPT, ½" BSP, 9/16" AE MP	SV - NV

BACK PRESSURE REGULATORS

Article No.	Description	Sensing element D-Diaphragm P- Piston	Body material B-Brass S-316SS	Pressure control range	Max Rated pressure	Fluid	Cv	Port-size
BP-300		D	S	20 (290)	50(725)	Gas	0,1	¼" NPT
BP-301		P	S	CV 0,1 -150 (2175) CV 0,5 – 35 (507)	225(3263)	Gas	0,1 & 0,2	¼" & 3/8" NPT
BP-MF400G		D	S	400 (5800)	400 (5800)	Gas	2,0	½" ¾" 1" NPT & BSP
BP-MF400H		D	S	400 (5800)	400 (5800)	Hydraulic	2,0	½" ¾" 1" NPT& BSP
BP-MF401G		P	S	400 (5800)	400 (5800)	Gas	2,0	½" ¾" 1" NPT &BSP
BP-MF401H		P	S	400 (5800)	400 (5800)	hydraulic	2,0	½" ¾" 1" NPT& BSP
BP-LF690	Liquid limited at 10lpm, air-actuated option	P	S	690 (10.000), air-actuated up to 600 (8700)	690 (10.000)	Gas & hydraulic	0,02 – 0,1	¼" 3/8" ½" NPT
BP-MF690G-05	Air-actuated option	P	S	690 (10.000), air-actuated up to 600 (8700)	690 (10.000)	Gas	0,5	3/8" ½" NPT & MP
BP-MF690H-05	Limited to 50lpm, air- actuated option	P	S	690 (10.000), air-actuated up to 600 (8700)	690 (10.000)	Hydraulic	0,5	3/8" ½" NPT & MP
BP-MF690G-15		P	S	up to 320 (4640), air- actuated up to 300(4350)	690 (10.000)	Gas	1,5	½" ¾" NPT & BSP, 1" NPT
BP-MF690H-15	Limited to 125lpm	P	S	690/10000	690/10000	Hydraulic	1,5	½" ¾" NPT & BSP, 1" NPT

HEATED PRESSURE REDUCING REGULATORS

Article No.	Description	Sensing element D-Diaphragm P- -Piston	Body material B-Brass S-316SS	Max Inlet bar/psi	Max Outlet bar(psi)	Fluid	Heating element type
XHS-300	Side and inline entry options	D	S	300 (4350)	35 (507)	G	Single 100W heater
XHR-300	300bar option	D	S	300 (4350)	35 (507)	G	2x 100W heating element, steam or electric
XHR-310	414bar option	D	S	414 (6000)	35 (507)	G	2x 100W heating element, steam or electric
XHR-301	300bar option	P	S	300 (4350)	35 (507)	G	2x 100W heating element, steam or electric
XHR-311	414bar option	P	S	414 (6000)	35 (507)	G	2x 100W heating element, steam or electric

ACCESSORIES AND ANCILLARY EQUIPMENT

Article No.	Description	Size	Material	Regulator line
PT-C-024	Hex Panel mounting ring	M33 x 1mm	316SS	300 series
PT-C-024-001	Hex Panel mounting ring	M34 x 2mm	316SS	MINI-300
PT-C-061-005	Panel mounting ring	55mm bodies		HYD-691, LF-540, MF-301
PT-C-061-003	Panel mounting ring	65mm bodies		LF-690, MF-414, LF-550, MF-300
GAU1100	Pressure gauges	¼" NPT	316SS	Up to 1000bar (14.500psi)

CUSTOM SOLUTIONS

Article No.	Description
SUBSEA	
XHM300	Heated manifold block

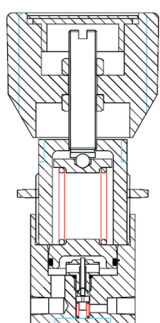
APPROVALS, CERTIFICATES, STATEMENTS

Article No.	Description
CERTCONF	Certificate of Conformity
TESTCERT	Test Certificate
Certificate of Origin	Certificate of Origin (Chamber of Commerce)
ASTM G93 Level C Cert	Oxygen Cleaning Certificate
MATCERT	3.1 Material Certification (Body material only)
MATCERT - GAUGES	3.1 Material Certification for Gauges
MATCERT - SPECIFIC	3.1 Material Certification (Order specific)
MATCERT - WETTED	3.1 Material Certification for all Wetted Components
SMDRL	Supplier Master Requirement Document List
	ATEX Statement
	Conflict Minerals
	Customer specific statements
	PED Statement
	Product Statements
	REACH Compliance
	RoHS Statement

BAR-PSI OVERVIEW

Bar	Psi	Bar	Psi	Bar	Psi	Bar	Psi
1	14,5	20	290	180	2600	414	6000
2	30	25	360	200	2900	550	8000
4	60	35	507	210	3045	600	8700
5	73	50	725	225	3263	690	10 000
6	90	70	1000	230	3300	862	12 500
8	116	100	1450	250	3600	1000	14 500
10	145	140	2000	300	4350	1034	15 000
15	218	150	2175	320	4640	1080	15 600
16	232	160	2320	400	5800	1380	20 000

MINI-300 SERIES – COMPACT ‘LOW FLOW’ REGULATOR



DESCRIPTION

The MINI-300 provides an economical, lightweight, and versatile regulator range, designed for customers who want accurate control from a compact unit.

APPLICATION

- > Analyser Systems
- > Point Of Use
- > Instrumentation Control
- > Gas Sticks
- > Lecture Bottle Assembly

SPECIAL FEATURES

- > 38mm diameter body provides small foot space
- > Fully supported ‘sensitive’ pistons with low pressure and high pressure outlet options
- > Low internal volume
- > All 316SS wetted parts including bonnet with panel mounting as standard
- > ‘Soft’ seating area perpendicular to flow stream to minimise particle damage

PRODUCT DATA

Fluid Type:	Gas (& low pressure hydraulics)
Sensing element:	Piston
Max Inlet Pressure:	210bar (3000psi) (PCTFE), 300bar (4350psi) (PEEK)
Max Outlet ranges:	up to 100bar (1450psi)
CV options:	0,03 – 0,06 – 0,15 (max 50 bar inlet)
Port size / Connections:	1/8" NPT
Loading Options:	Hand-wheel or Dome-loaded
Venting / non-venting:	Non-venting
Leakage:	Bubble tight

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

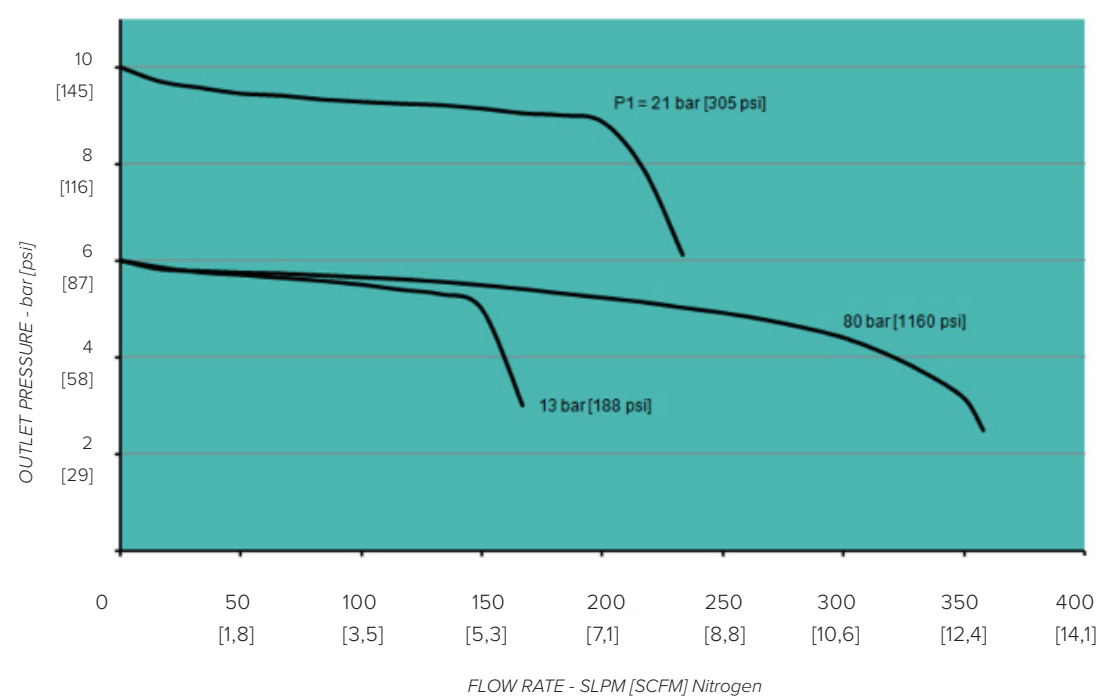
Weight:	0,5kg
Body material options:	Brass – 316SS
Wetted parts:	316SS
Bonnet:	316SS
Seat:	PCTFE
Seat diameter:	2,3mm
O-ring seals:	Viton

ORDER CODE

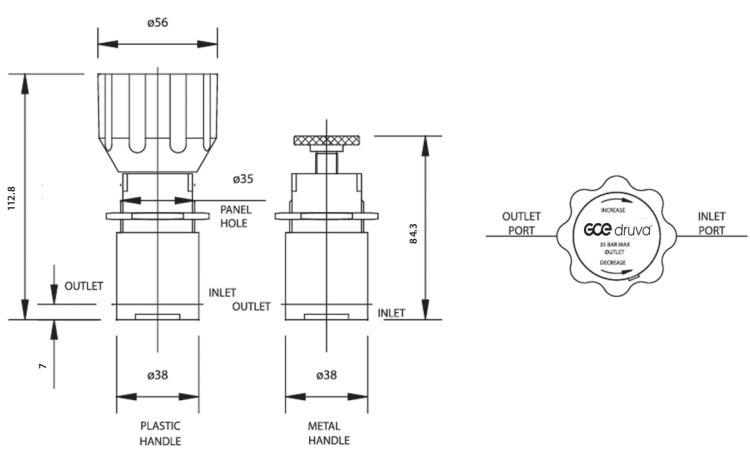
Basic Model	Cv Value	Body material	Outlet ranges	Seat	Porting configuration
MINI300	06	S	10	P	N
MINI300	03 – 0,03 06 – 0,06 15 – 0,15	S – 316SS B – Brass	01 – 0 - 1 bar (0 - 14,5psi) 02 – 0 - 2bar (0 - 30psi) 04 – 0 - 4bar (0 - 60psi) 10 – 0 - 10bar (0 - 145psi) 35 – 0 - 35bar (0 - 507psi) 50 – 0 - 50bar (0 - 725psi) 100 – 0 - 100bar (0 - 1450psi)	P – PEEK (Max Inlet 300bar) K – PCTFE (Max Inlet 210bar)	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests and for the dome-loaded option.

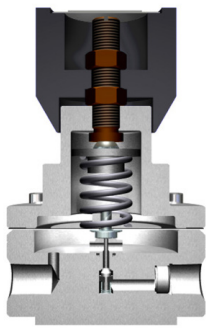
PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



LF-230 SERIES – LOW FLOW PRESSURE REGULATOR WITH SENSITIVE ELASTOMETRIC DIAPHRAGM



DESCRIPTION

The LF-230 is a low pressure gas regulator with excellent low pressure regulation. It has a specially designed elastometric diaphragm for very sensitive gas regulation.

APPLICATION

- > Gas feed to burners
- > Gas analyzer systems
- > Laboratories and research labs

SPECIAL FEATURES

- > 316L SS Machined Wetted Parts
- > Large sensitive elastomeric diaphragm
- > 0,1bar to 10bar / 1,5psi to 150psi control range
- > Minimal decaying inlet pressure effect
- > For flow rates to 30Nm³/hr (@ max P2)

PRODUCT DATA

Fluid Type:	Gas (& low pressure hydraulics)
Sensing element:	Diaphragm
Max Inlet Pressure:	230bar (3300psi)
Max Outlet ranges:	10bar (145psi)
CV options:	0,06
Port size / Connections:	1/4" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight to ANSI/FCI 70-3-2004

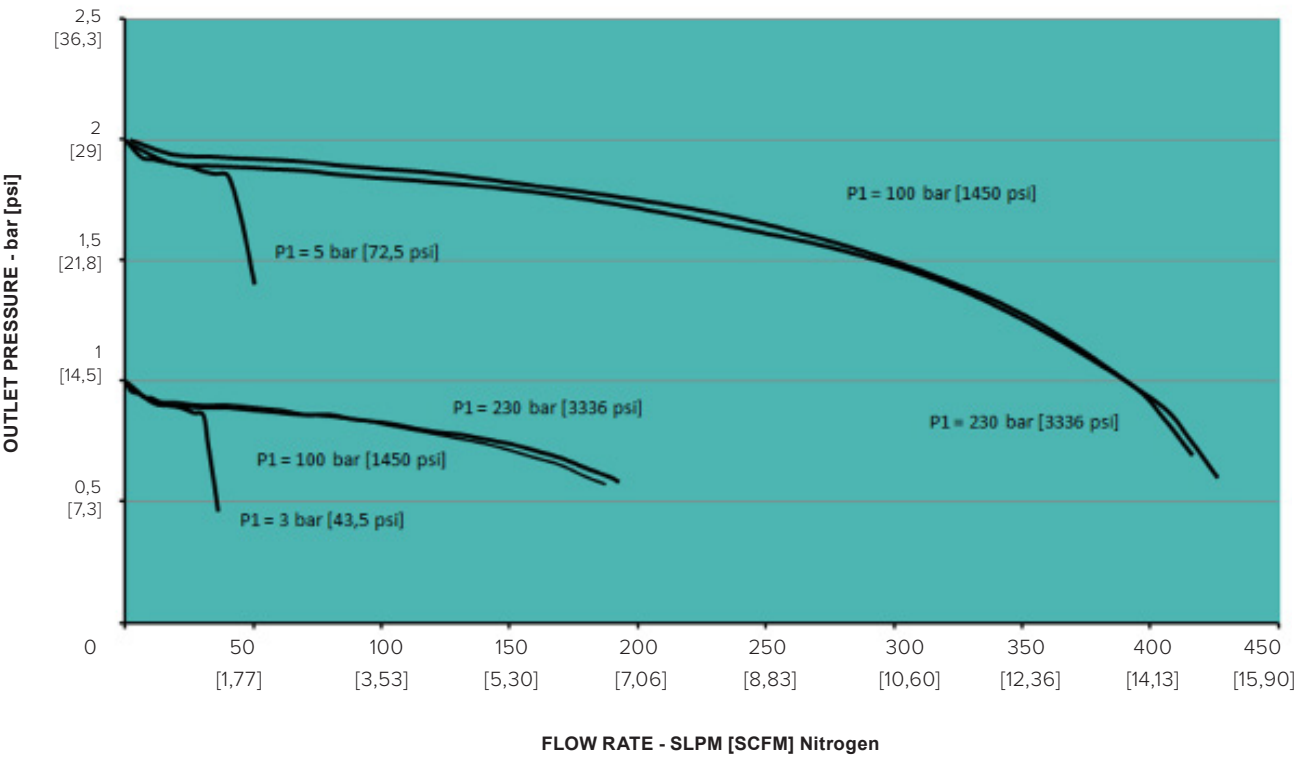
TECHNICAL DATA / MATERIALS OF CONSTRUCTION

Weight:	Approx. 1kg
Body material options:	316SS
Body & Wetted parts:	316SS
Bonnet:	316SS
Seat:	PCTFE, FEP, TEFLON
Seat diameter:	2,5mm
O-ring seals:	FKM

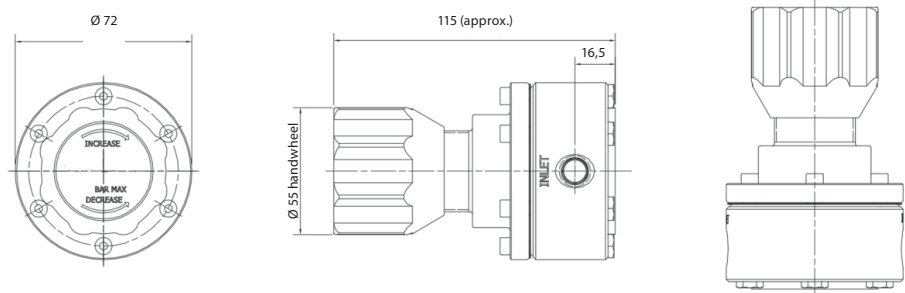
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Basic Model	Cv Value	Body material	Outlet ranges	Seat	Porting configuration
LF230	06	S	10	P	N
LF230	06 – 0,06	S – 316SS	01 – 0 - 1bar (0 - 14,5psi) 02 – 0 - 2bar (0 - 30psi) 05 – 0 - 5bar (0 - 73psi) 10 – 0 - 10bar (0 - 145psi)	F – FEP (Max Inlet 50bar) K – PCTFE (Max Inlet 230bar) T – Teflon (Max Inlet 10bar)	Please select your configuration in the quick reference overview

PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



LF-300 “LOW FLOW” PRESSURE REDUCING REGULATOR DIAPHRAGM SENSED FOR OUTLET CONTROL TO 35BAR (500PSI)



DESCRIPTION

The LF-300 has been designed with quality and reliability in mind, with genuinely unique features designed into this single stage regulator. Finite Element Analysis, combined with physical cycle tests, created an Inconel X750 diaphragm that lasts 50% longer than a typical stainless steel designs.

The metal diaphragm means that leak integrity is maintained, and that no sample media is absorbed by the sensing element – reducing purge times between sample analysis. A Brass machined Washer also ensures no torsional load is applied to the diaphragm during assembly.

APPLICATION

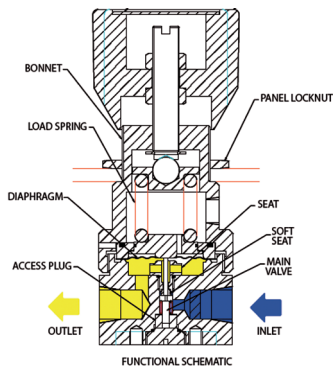
- > Gas and Liquid Analyzer Systems
- > Gas Cylinder Regulator Assemblies
- > Portable Calibration Kits
- > Laboratories & Research Labs
- > Low Pressure Hydraulic Systems

SPECIAL FEATURES

- > Metal to metal diaphragm sealing
- > Coned seating design
- > Sealing area protected and centralized on the body of the regulator
- > Lightweight compact design
- > Strong and sensitive diaphragm element
- > High Accuracy

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Diaphragm
Max Inlet Pressure:	300bar (4350psi) with PEEK seat
Max Outlet ranges:	Up to 35bar (507psi)
CV options:	0,03 – 0,06
Port size / Connections:	¼" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP (tested on Nitrogen)



Assembly drawing for reference only. Refer to office for specific detail.

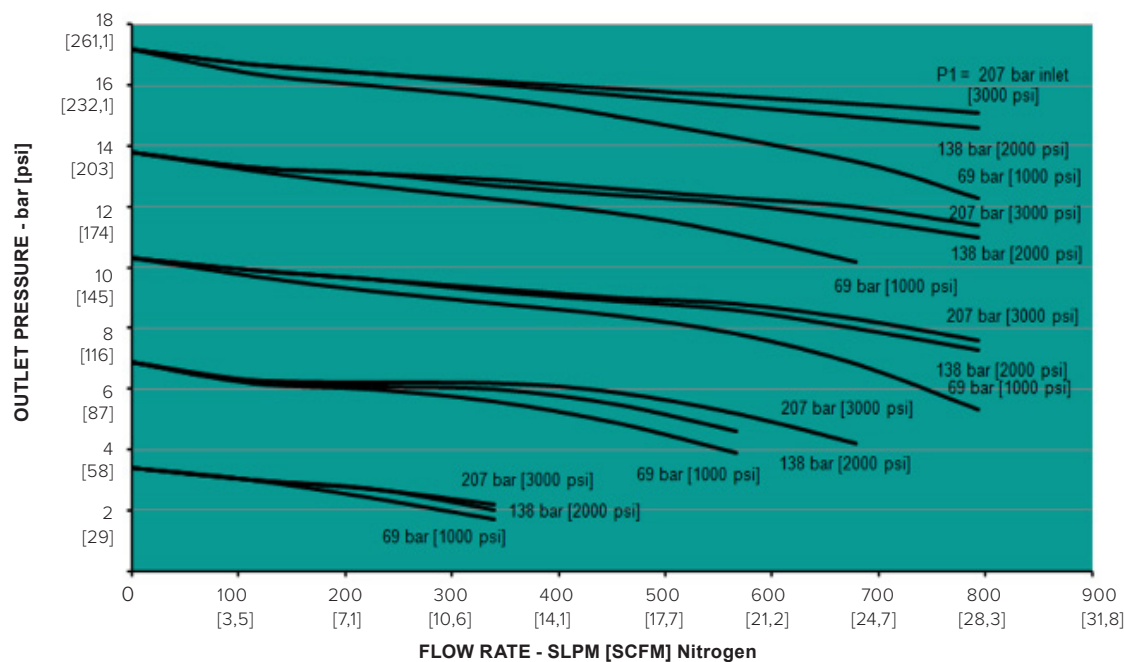
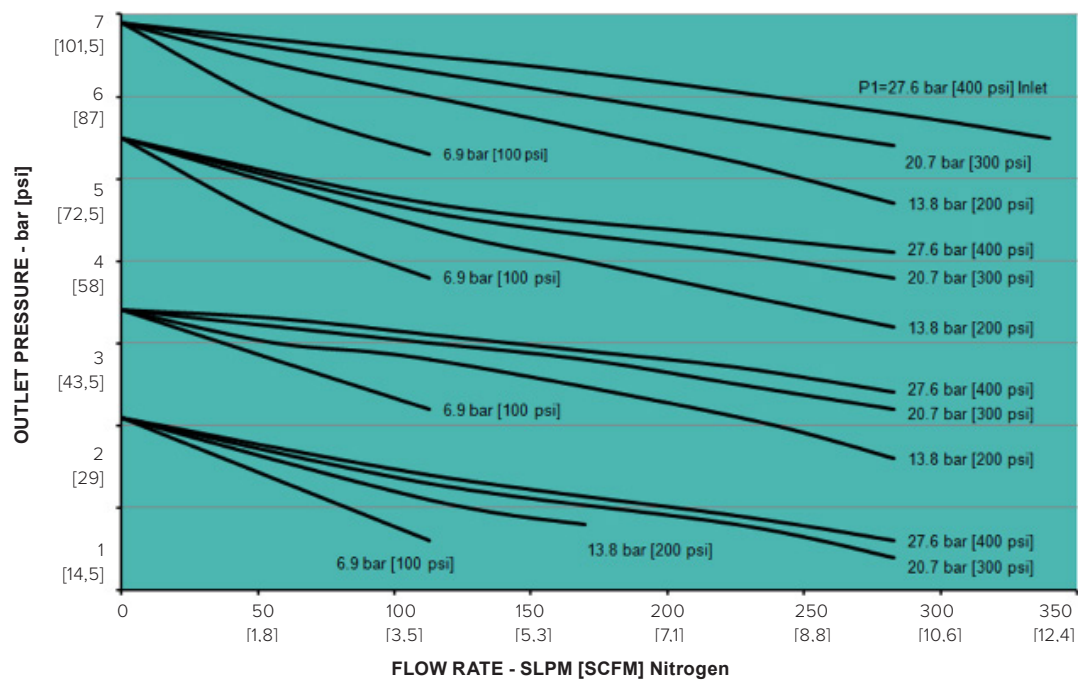
TECHNICAL DATA / MATERIALS OF CONSTRUCTION

Weight:	0,9kg
Body material options:	316SS
Body & wetted parts:	316SS
Bonnet:	316SS
Seat:	PEEK, PCTFE, FEP, TEFLON
O-ring seals:	Viton

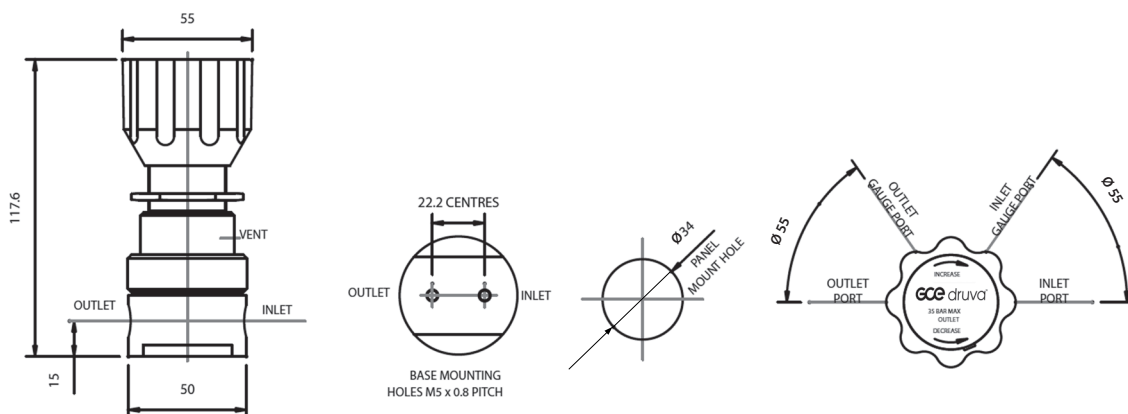
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Basic Model	Cv Value	Body material	Outlet ranges	Seat	Porting configuration
LF300	03	S	10	P	N
LF300	03 – 0,03 06 – 0,06	S – 316SS	01 – 0 - 1bar (0 - 14,5psi) 02 – 0 - 2bar (0 - 30psi) 04 – 0 - 4bar (0 - 60psi) 10 – 0 - 10bar (0 - 145psi) 20 – 0 - 20bar (0 - 290psi) 35 – 0 - 35bar (0 - 507psi)	P – PEEK (Max Inlet 300bar) K – PCTFE (Max Inlet 210bar) F – FEP (Max Inlet 50bar) T – Teflon (Max Inlet 20bar)	Please select your configuration in the quick reference overview

PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



LF-310 DIAPHRAGM SENSED SINGLE STAGE REGULATOR WITH SOLID DISK SEAT



DESCRIPTION

The LF-310 offers the same features as the LF-300 single-stage diaphragm-sensed regulator but with a 'solid disk' seat design.

The LF-310 offers more options with various seating materials available such as Tecasin® or ceramic for aggressive or high temperature applications. In addition, the strong Inconel X750 diaphragm provides 150% longevity over stainless steel designs, whilst flexible seating options ensure more choices can be provided to meet arduous process applications.

APPLICATION

- > Gas analyser systems
- > Gas cylinder regulators
- > Calibration systems

SPECIAL FEATURES

- > 414bar (6000psi) with solid disk seat
- > Fully supported convoluted X750 diaphragm
- > All 316SS machined wetted parts and bonnet
- > Non-venting
- > Unbalanced main valve
- > Port size: ¼" NPT
- > 40 micron inlet filter

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Diaphragm
Max Inlet Pressure:	414bar (6000psi) with PEEK seat
Max Outlet ranges:	Up to 35bar (507psi)
CV options:	0,06
Port size / Connections:	¼" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	In accordance to ANSI/FCI 70-3

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

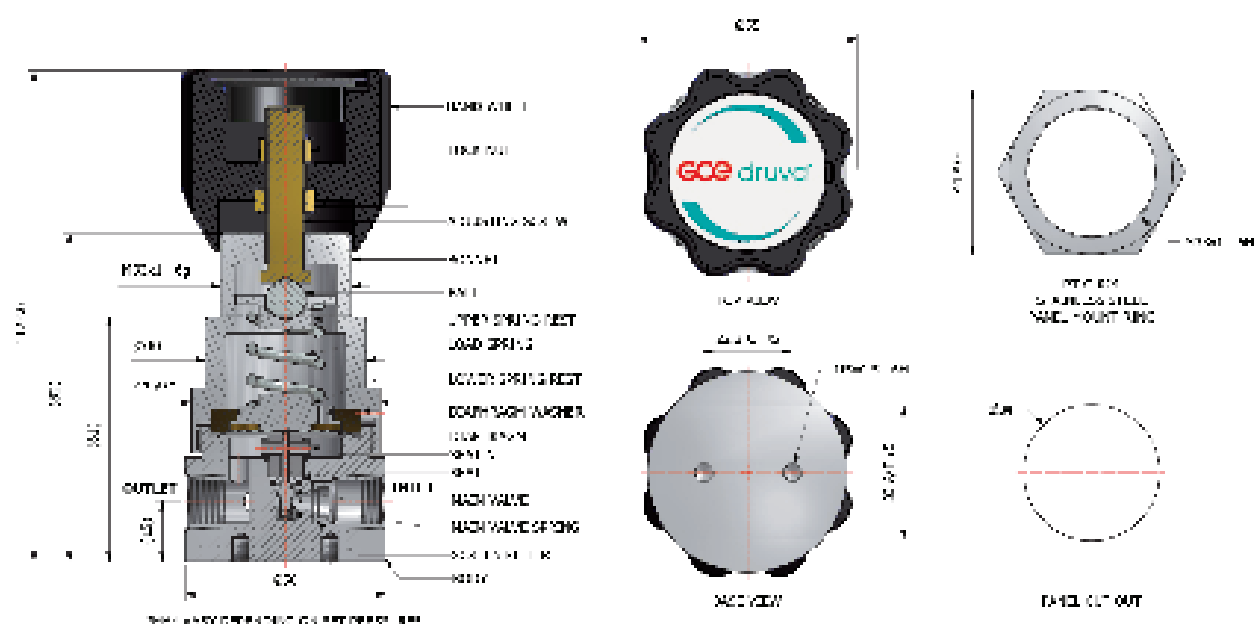
Weight:	0,9kg
Body material options:	316SS, Brass, Hastelloy
Wetted parts:	316SS
Bonnet:	316SS
Seat:	PCTFE, PEEK, PTFE, FEP
Seat diameter:	2,3mm
O-ring seals:	Viton

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	Seat	Porting configuration
LF310	06	S	10	P	N
LF310	06 – 0,06	S – 316SS B – Brass H – Hastelloy	01 – 0 - 1bar (0 - 14,5psi) 02 – 0 - 2bar (0 - 30psi) 05 – 0 - 5bar (0 - 73psi) 10 – 0 - 10bar (0 - 145psi) 20 – 0 - 20bar (0 - 290psi) 35 – 0 - 35bar (0 - 507psi)	P – PEEK (Max Inlet 300bar) K – PCTFE (Max Inlet 210bar) F – FEP (Max Inlet 50bar)	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



TS-300 TWO STAGE PRESSURE REDUCING REGULATOR DIAPHRAGM SENSED FOR OUTLET CONTROL TO 25BAR (360PSI)



DESCRIPTION

The TS-300 provides stable pressure control under decaying cylinder pressures. The first stage of the regulator is set to 35bar to allow maximum flow capability through the regulator.

APPLICATION

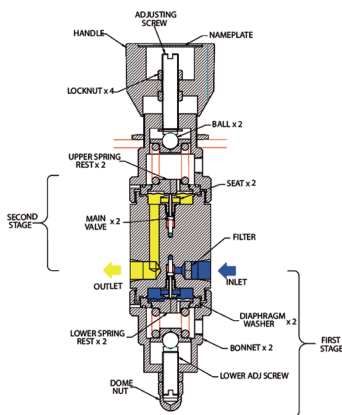
- > Gas and Liquid Analyzer Systems
- > Gas Cylinder Regulator Assemblies
- > Carrier gases
- > Laboratories & Research Labs

SPECIAL FEATURES

- > Metal to metal sealing diaphragm
- > Sealing area protected and centralized within the body of the regulator 0.04% decaying pressure effect 'Interstage' relief valve option

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Diaphragm
Max Inlet Pressure:	300bar (4350psi) with PEEK seat
Max Outlet ranges:	Up to 25bar (360psi)
CV options:	0,06
Port size / Connections:	¼" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP (tested on Nitrogen)



Assembly drawing for reference only.

Refer to office for specific detail.

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

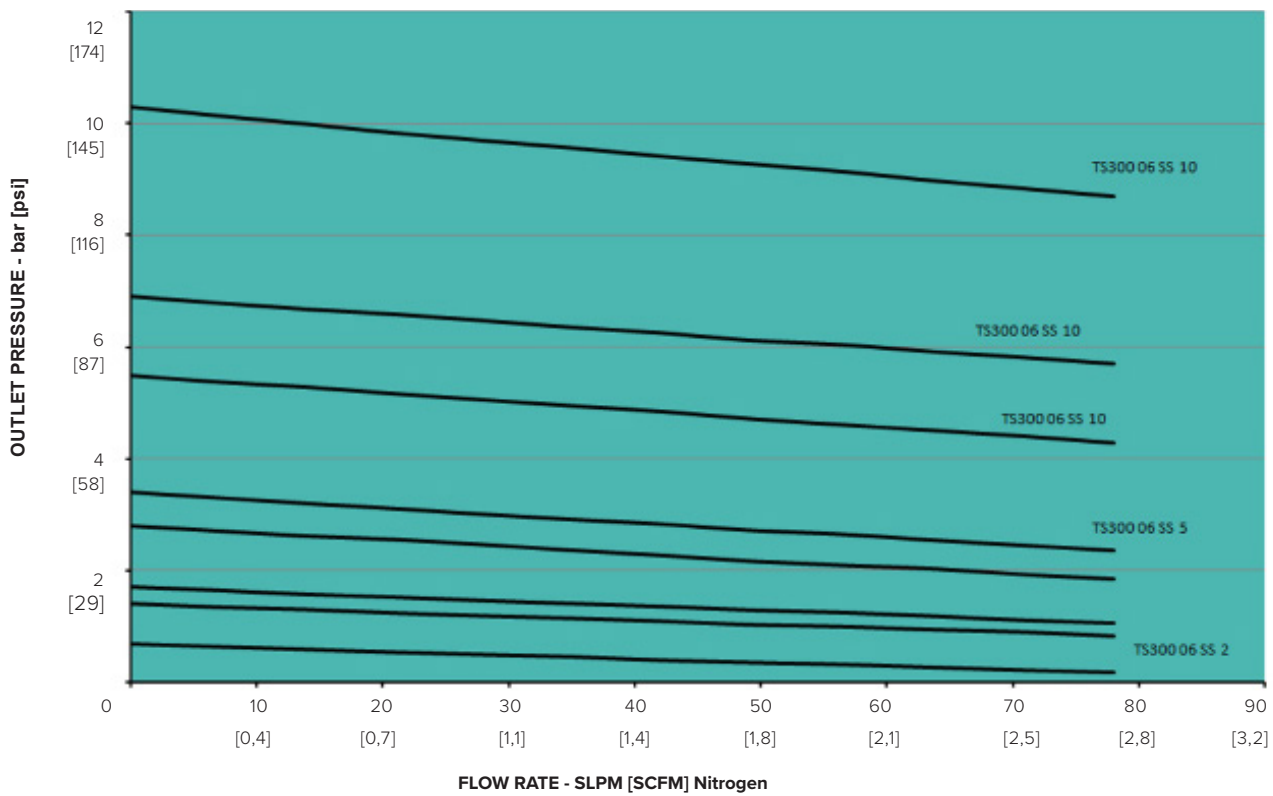
Weight:	1,4kg
Body material options:	Brass or 316SS
Wetted parts:	316SS
Bonnet:	316SS
Seat:	PEEK or PCTFE
O-ring seals:	Viton

ORDER CODE

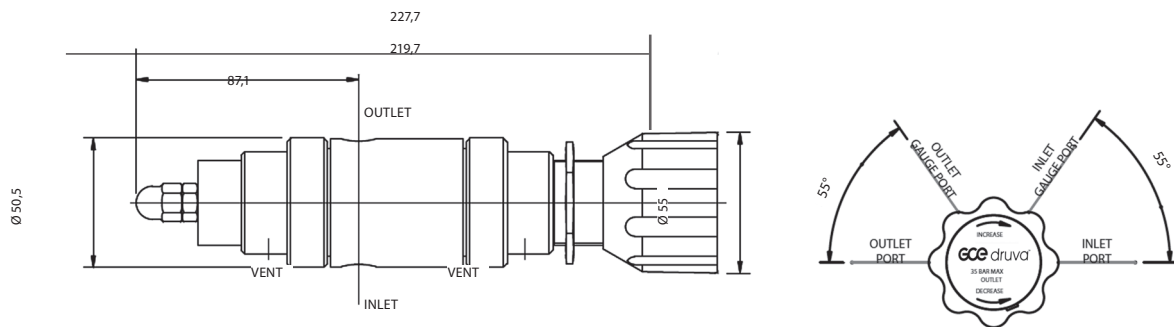
Basic Model	Cv Value	Body material	Outlet ranges	Seat	Porting configuration
TS300	06	S	10	P	N
TS300	06 – 0,06	S – 316SS B – Brass	01 – 0 - 1bar (0 - 14,5psi) 02 – 0 - 2bar (0 - 30psi) 04 – 0 - 4bar (0 - 60psi) 10 – 0 - 10bar (0 - 145psi) 25 – 0 - 25bar (0 - 360psi)	P – PEEK (Max Inlet 300bar) K – PCTFE (Max Inlet 210bar)	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

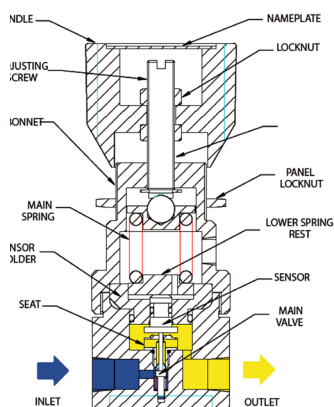
PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



LF-301 “LOW FLOW” PRESSURE REGULATOR PISTON SENSED FOR OUTLET CONTROL TO 180BAR (2600PSI) (360PSI)



Assembly drawing for reference only. Refer to office for specific detail.

DESCRIPTION

The LF-301 provides a compact and economical solution for controlling pressures up to 180bar on low flow applications.

Ideal for first stage pressure let down where basic pressure control is required. A small piston sensing element allows low torque adjustment with a range of springs with fine pressure adjustment.

APPLICATION

- > Gas Cylinder regulator assemblies
- > Pressure test rigs
- > Instrument Air Lines
- > Aircraft service carts

SPECIAL FEATURES

- > Compact design
- > Economical
- > 316SS Bonnet
- > Max 300bar inlet

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Piston
Max Inlet Pressure:	300bar (4350psi) with PEEK seat

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

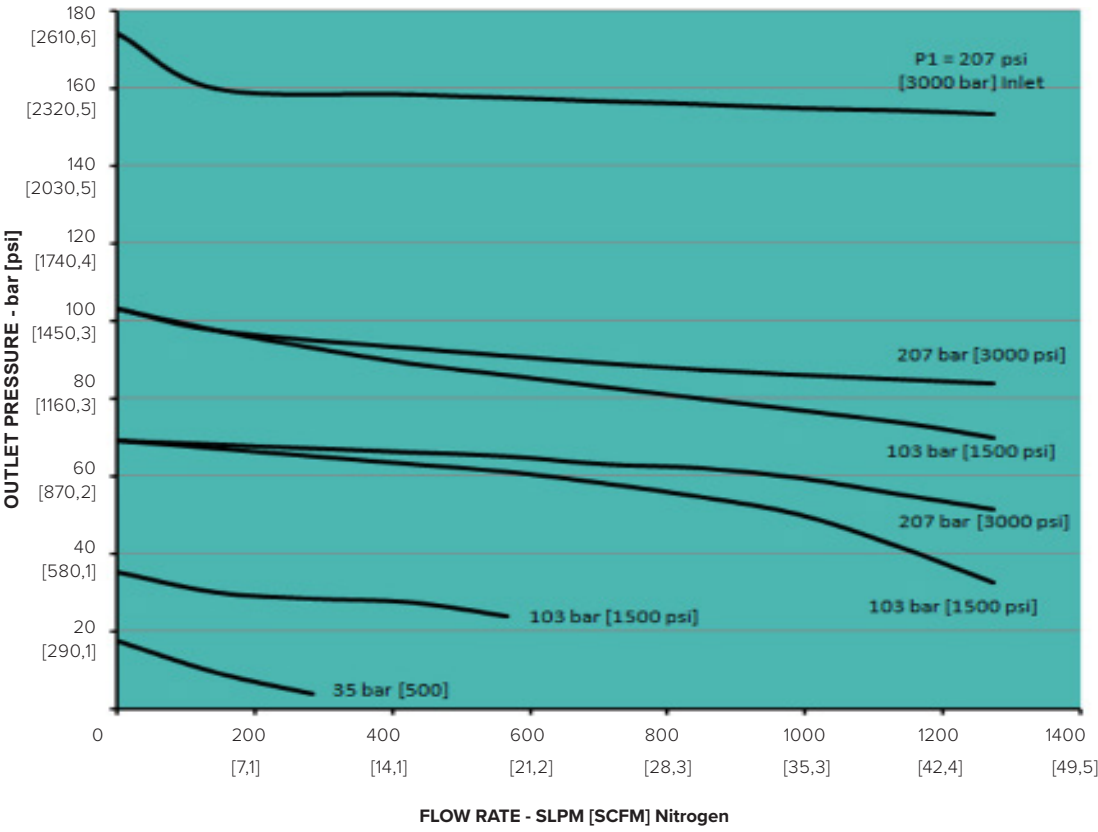
Weight:	1.06
Body material options:	Brass or 316SS
Port size / Connections:	1/4" or 1/2"
Working pressure:	316SS
Working ports:	Hand wheel
Venting / non-venting:	Non-venting
Sealage:	Bubbled PEEK max WP (tested on Nitrogen)
O-ring seals:	Viton

ORDER CODE

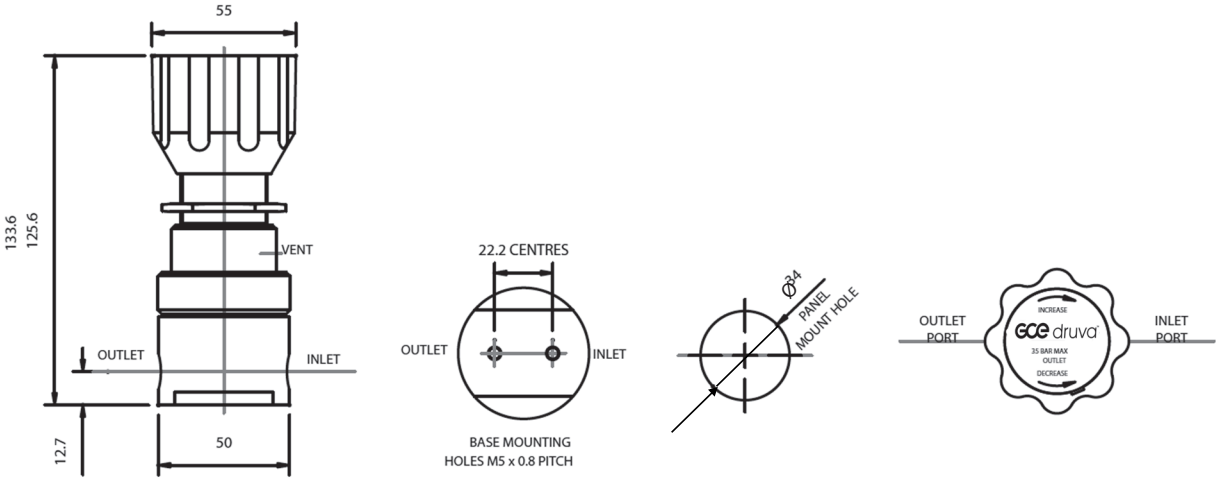
Basic Model	Cv Value	Body material	Outlet ranges	Body material	Seat	Porting configuration
LF301	06	S	50	FKM/FPM	P	N
LF301	06 – 0,06	S – 316SS B – Brass	50 – 0 - 50bar (0 - 725psi) 70 – 0 - 70bar (0 - 1000psi) 100 – 0 - 100bar (0 - 1450psi) 180 – 0 - 180bar (0 - 2600psi)	V – FKM/FPM N – NBR E – EPDM K – FFKM	P – PEEK (Max Inlet 300bar) K – PCTFE (Max Inlet 210bar)	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

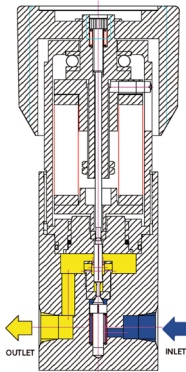
PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



LF-540 'LOW FLOW' PRESSURE REDUCING REGULATOR PISTON SENSED FOR OUTLET CONTROL TO 414BAR (6000PSI)



Assembly drawing for reference only. Refer to office for specific detail.

DESCRIPTION

A compact and economical high pressure regulator with precision machined sensing elements to allow fine pressure control on pressures up to 414bar, which can be supplied as none venting or self-venting (non-adjustable).

APPLICATION

- > Test and calibration systems
- > Aircraft charging carts
- > Valve Actuator Systems
- > Gas Cylinder Regulator Assemblies

SPECIAL FEATURES

- > 550bar (8000psi) inlet pressure
- > Economical Design
- > Precision machined sensing elements
- > Load bearings and large handwheel for low torque adjustment
- > Excellent sensitivity
- > Self venting and non venting options

PRODUCT DATA

Fluid Type:	Gas (& low pressure hydraulics)
Sensing element:	Piston
Max Inlet Pressure:	550bar (8000psi)
Max Outlet ranges:	Up to 414bar (6000psi)
CV options:	0,1 or 0,2
Port size / Connections:	1/4" NPT or 3/8" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Self-venting (non-adjustable) or Non-venting
Leakage:	Bubble tight at max WP (tested on Nitrogen)

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

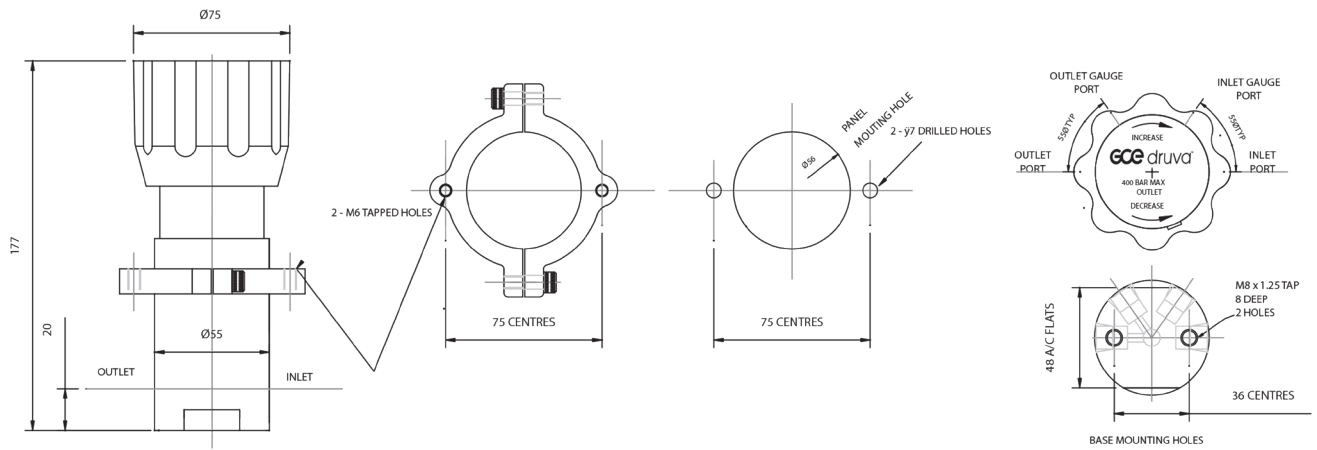
Weight:	2,1kg
Body material options:	Brass or 316SS
Wetted parts:	316SS
Bonnet:	316SS
Seat:	PEEK GF30
O-ring seals:	NBR, Viton, EPDM

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	Body material	Seat	Porting configuration
LF540	01	S	100	FKM/FPM	P	N
LF540	01 – 0,1 02 – 0,2	S – 316SS B – Brass	50 – 0 - 50bar (0 - 725psi) 70 – 0 - 70bar (0 - 1000psi) 100 – 0 - 100bar (0 - 1450psi) 180 – 0 - 180bar (0 - 2600psi)	V – FKM/FPM N – NBR E – EPDM K – FFKM	P – PEEK (Max Inlet 300bar) K – PCTFE (Max Inlet 210bar)	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



LF-692 – ‘LOW FLOW’ GAS REDUCING REGULATOR PISTON SENSED FOR OUTLET CONTROL TO 1380BAR (20.000PSI)



DESCRIPTION

The LF-692 uses high engineered plastics to provide positive shut off on high pressure gases. The unique seating cartridge provides a dampening action on this critical component to prevent ‘chattering’ or ‘unstable frequency resonance’. The regulator is self relieving with segregated captured vent to pipe gases away to a safe area or recycle within the process. The seating area can easily be accessed from the base of the regulator for speedy servicing in situ.

APPLICATION

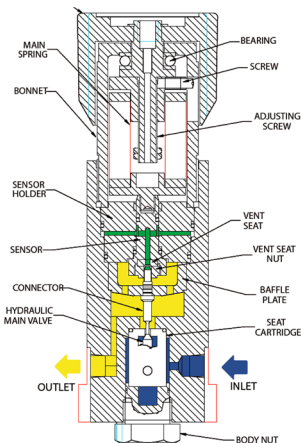
- > Hydrogen fuel cells
- > Valve actuator systems
- > Valve test rigs
- > Gas sample lines

SPECIAL FEATURES

- > 690bar (10.000psi) inlet pressure as standard
- > PEEK or TECASINT POLYIMIDE seating options
- > Precision machined sensing elements
- > 5 Sensor ranges for combination of low torque and high sensitivity
- > Segregated captured vent 316SS Panel mounting rings
- > Optional materials for 1350bar/20,000psi control

PRODUCT DATA

Fluid Type:	Gas (& low pressure hydraulics)
Sensing element:	Piston
Max Inlet Pressure:	1380bar (20.000psi)
Max Outlet ranges:	up to 1380bar (Hand-wheel) up to 1034 bar (air actuated)
CV options:	0,05 or 0,1
Port size / Connections:	¼" NPT, ¼" MP, 3/8" NPT, 3/8" MP, ½" NPT, 9/16" MP
Loading Options:	Hand-wheel & Air-actuated
Venting / non-venting:	Self-venting & Non-venting
Leakage:	Bubble tight seal at max inlet pressure



Assembly drawing for reference only. Refer to office for specific detail.

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

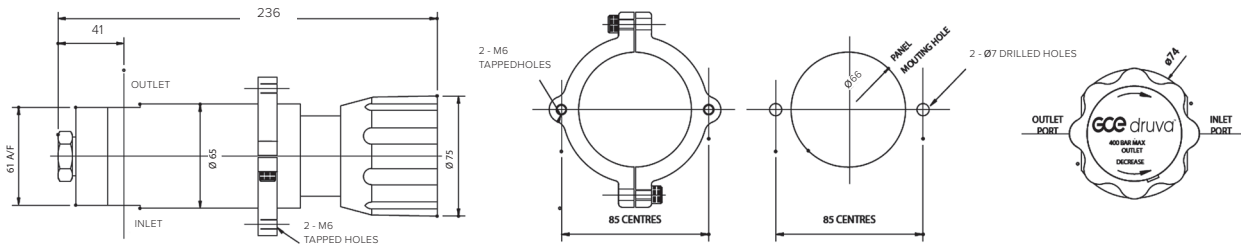
Weight:	Approx. 4kg
Body material options:	316SS or 17-4PH SS
Wetted parts:	316SS
Bonnet:	316SS
Seat:	PEEK or TECASINT
O-ring seals:	NBR, Viton, EPDM

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connesctions	Porting configuration	Venting Options	MOD (Options)
LF692	01	S	862S	N	03A	N	SV	MOD
LF692	01 – 0,1 05 – 0,05	S – 316SS (690bar inlet) R – 17-4PH SS (1380bar inlet)	50S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi) 200S – 0 - 200bar (0 - 2900psi) 414S – 0 - 414bar (0 - 6000psi) 690S – 0 - 690bar (0 - 10.000psi) 862S – 0 - 862bar (0 - 12.500psi) 1034S – 0 - 1034bar (0 - 15.000psi) 1380S – 0 - 1380bar (0 - 20.000psi) 140A – 0 - 140bar (0 - 2000psi) (Air Actuated) 600A – 0 - 600bar (0 - 8700psi) (Air Actuated) 1034A – 0 - 1034bar (0 - 15.000psi)	N – NBR V – FKM/FPM E – EPDM H – HNBR K – FFKM	02N – ¼" NPT (max 690bar) 03N – 3/8" NPT (max 690bar) 04N – ½" NPT (max 690bar) 03A – 3/8" MP 04A – 9/16" MP	Please select your configuration in the quick reference overview	SV – Self Venting NV – Non Venting	Upon request, special options are available

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



MF-101 SERIES – ‘MEDIUM FLOW’ PRESSURE REGULATOR, PISTON SENSED FOR MEDIUM PRESSURE APPLICATIONS



DESCRIPTION

The MF-101 incorporates a large precision machined sensing element to control outlet pressures up to 35bar from a maximum 100bar inlet. The main valve is an unbalanced design to create positive shut-off on gas or liquid applications against the PEEK seat.

There is also a balanced main valve design available. Please contact us for further details & ordering options.

APPLICATION

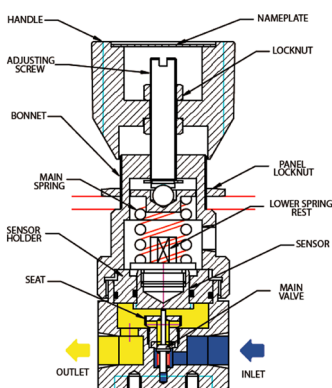
- > Gas and Liquid Analyzer Systems
- > Low Pressure Hydraulic Systems
- > Research labs
- > Instrument Air Lines

SPECIAL FEATURES

- > Lightweight compact design
- > Piston sensing element
- > High accuracy

PRODUCT DATA

Fluid Type:	Gas & Hydraulics
Sensing element:	Piston
Max Inlet Pressure:	Unbalanced – 100bar (1450psi)
Balanced:	PEEK – 414bar (6000psi) PCTFE – 300bar (4350psi)
Max Outlet ranges:	up to 35bar (507psi)
CV options:	0,5
Port size / Connections:	¼" NPT or 3/8" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP



Assembly drawing for reference only. Refer to office for specific detail.

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

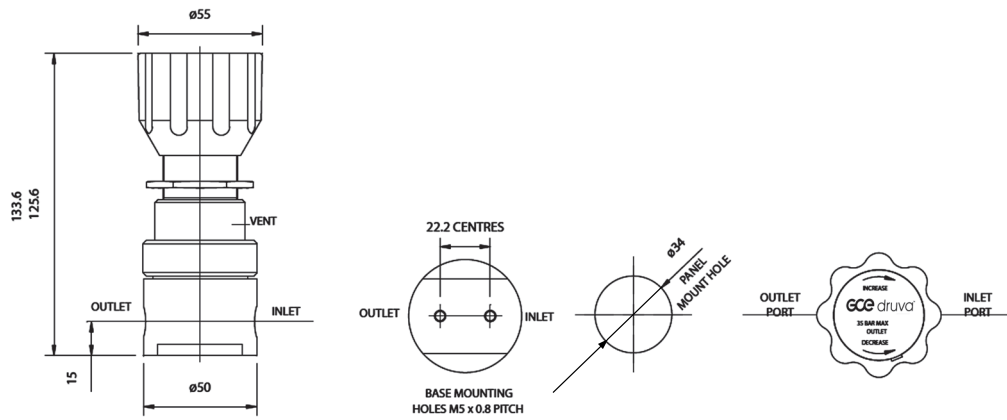
Weight:	0,9kg
Body material options:	Brass or 316SS
Wetted parts:	316SS
Bonnet:	Brass or 316SS
Seat:	PEEK or PCTFE
O-ring seals:	Viton

ORDER CODE

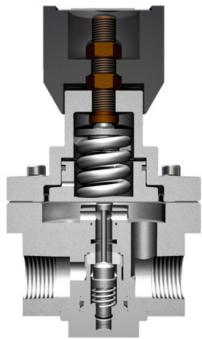
Basic Model	Cv Value	Body material	Outlet ranges	Seat	Port connections	Porting configuration
MF101	5	S	10	P	02N	N
MF101	5 – 0,5	S – 316SS B – HT Brass	10 – 0 - 10bar (0 - 145psi) 20 – 0 - 20bar (0 - 290psi) 35 – 0 - 35bar (0 - 507psi)	P – PEEK – Hydraulic service (Max 100bar inlet) K – PCTFE – Gas service (Max 100bar inlet)	02N – ¼" NPT 03N – 3/8" NPT	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



MF-230/231 – ‘MEDIUM FLOW’ PRESSURE REGULATOR WITH DIAPHRAGM (MF-230) & AS PISTON OPTION (MF-231)



DESCRIPTION

Versatile and economical regulator for gas applications. An elastomeric diaphragm provides excellent sensitive control to 10bar (145psi) pressure and piston sensed options for higher outlets. A balanced main valve minimises the load on the seat and provides stable control under decaying inlet pressure. Easy to access seat cartridge from base of regulator reduces downtime during servicing.

APPLICATION

- > CNG
- > Commercial Diving
- > Pneumatic Logic Systems
- > Pressure Test Rigs

SPECIAL FEATURES

- > Excellent sensitive control
- > Finely balanced main valve
- > Stable outlet pressure under decaying inlet
- > Easy to service design
- > All machined parts in 316SS

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Diaphragm or Piston
Max Inlet Pressure:	230bar (3300psi)
Max Outlet ranges:	0 – 10bar (diaphragm) or 0 – 50bar (piston)
CV options:	1,0
Port size / Connections:	½" NPT, ½" BSP, ¾" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

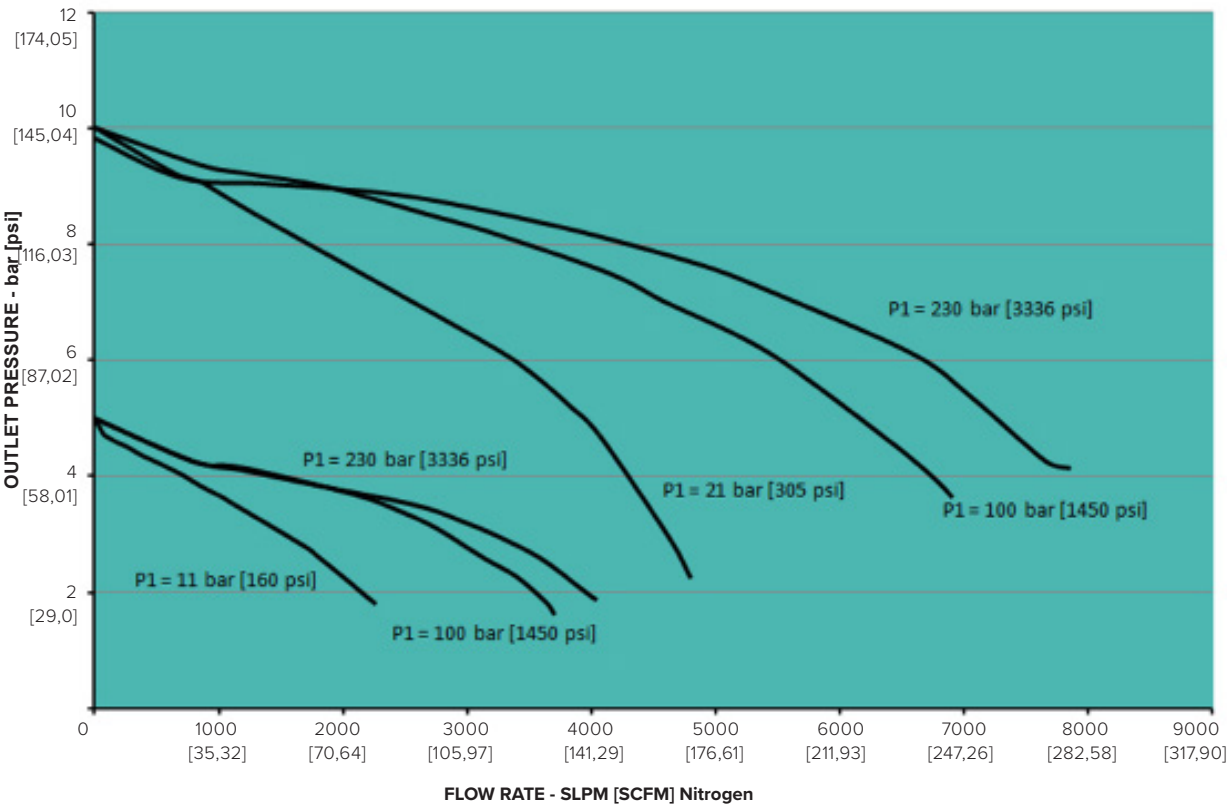
Weight:	Approx. 1,7kg
Body material options:	316SS
Wetted parts:	316SS
Bonnet:	316SS
Seat:	PCTFE, PTFE, FEP
Seat diameter:	7,2mm
O-ring seals:	FKM

ORDER CODE

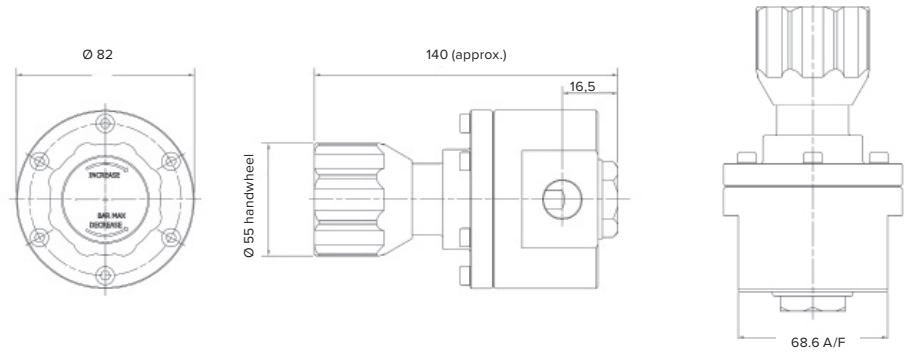
Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Seat	Inlet/outlet connections	Porting configuration
MF230	1	S	10	V	T	04N	N
MF230 (diaphragm)	1 – 1,0	S – 316SS	01 – 0 - 1bar (0 – 14,5psi) 02 – 0 - 2bar (0 – 29psi) 05 – 0 - 5bar (0 – 72psi) 10 – 0 - 10bar (0 - 145psi) 50 – 0 - 50bar (0 - 725psi) – piston option only	V – FKP/FPM N – NBR	T – PTFE (Max Inlet 10bar) K – PCTFE (Max Inlet 230bar) F – FEP (max inlet 50bar)	04N – ½" NPT 04B – ½" BSP 06N – ¾" NPT	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS MF-230



INSTALLATION DIMENSIONS:



MF-301 – ‘MEDIUM FLOW’ PRESSURE REGULATOR PISTON SENSED FOR OUTLET CONTROL TO 200BAR (2900PSI)



DESCRIPTION

The MF-301 is a medium flow piston sensed pressure reducing regulator, which incorporates a balanced main valve to provide stable control under varying inlet pressures. The regulator has a PCTFE seat for excellent shut off and control on gas service. A combination of sensors and spring ranges provide a range of pressure control options with minimal torque adjustment and accurate control.

APPLICATION

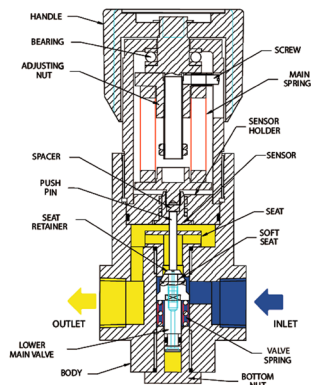
- > Compressed air systems
- > Gas quads
- > Commercial diving & life support applications
- > Pressure Test Rigs
- > Air starter engine

SPECIAL FEATURES

- > Precision machined sensing elements
- > Low torque adjustment
- > Lower entry access to main valve and plastic cone
- > Finely balanced main valve
- > Stable and accurate pressure control
- > Self-venting or non-venting options

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Piston
Max Inlet Pressure:	300bar (4350psi)
Max Outlet ranges:	200bar (hand-wheel) or 140bar (Air-actuated)
CV options:	0,8 or 2,0
Port size / Connections:	½" NPT or ¾" NPT
Loading Options:	Hand-wheel or air-actuated
Venting / non-venting:	Self-venting or Non-venting
Leakage:	Bubble tight at max WP



Assembly drawing for reference only. Refer to office for specific detail.

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

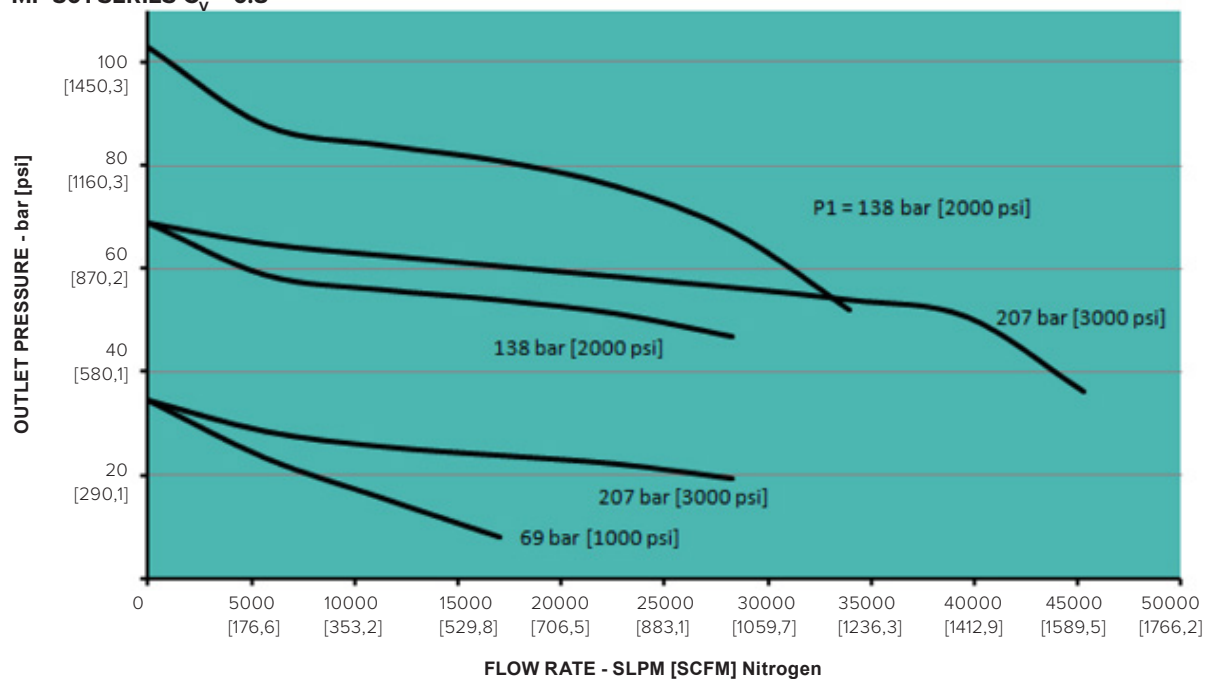
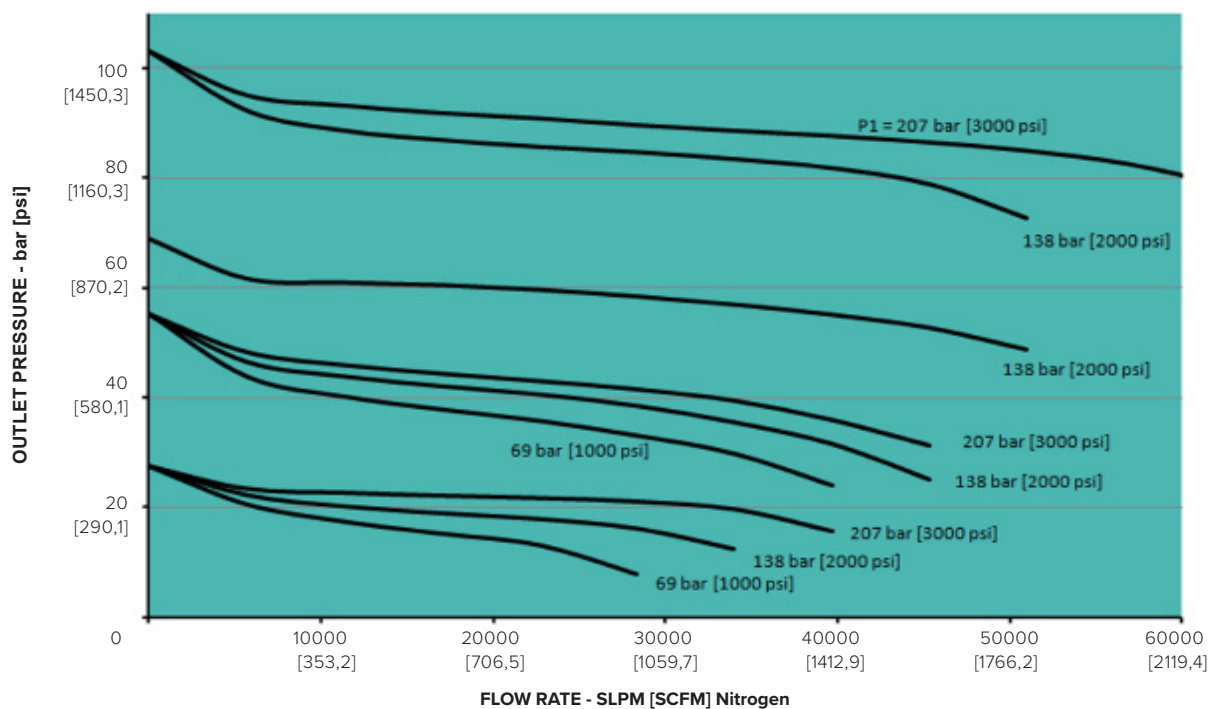
Weight:	3,9kg
Body & Bonnet material options:	316SS or Brass
Wetted parts:	316SS
Seat:	PCTFE
Seat diameter:	7,2mm
O-ring seals:	NBR, Viton, EPDM

ORDER CODE

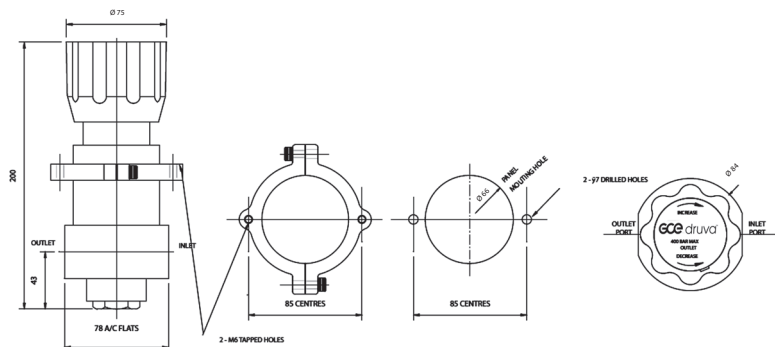
Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connesctions	Porting configuration	Venting options
MF301	2	S	20S	V	04N	N	SV
MF301	2 – 2,0 8 – 0,8	S – 316SS B – Brass	20S – 0 - 20bar (0 - 290psi) 50S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi) 200S – 0 - 200bar (0 - 2900psi) 140A – 0 - 140bar (0 - 2000psi) (Air-actuated)	V – FKP/FPM N – NBR	04N – ½" NPT 04B – ½" BSP 06N – ¾" NPT	Please select your configuration in the quick reference overview	NV – Non-venting SV – Self-venting

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS

MF-301 SERIES $C_v = 0.8$ MF-301 SERIES $C_v = 2.0$ 

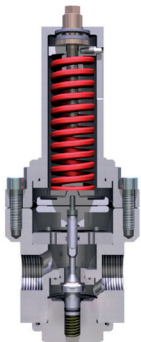
INSTALLATION DIMENSIONS:



MF-400/401G – ‘MEDIUM FLOW’ PRESSURE REGULATOR FOR LIQUID OR GAS APPLICATIONS DIAPHRAGM AND PISTON SENSED OPTIONS



DIAPHRAGM SENSED DESIGN:



PISTON SENSED DESIGN:



DESCRIPTION

The MF-400 is the diaphragm sensed option and the MF401 is the piston sensed option. Both the diaphragm sensed and piston sensed options also have gas and hydraulic options. This makes the model a versatile and widely used model.

APPLICATION

> Versatile set of gas & hydraulic applications

SPECIAL FEATURES

- > 316L SS Wetted Parts
- > Balanced Main Valve
- > Cv 2,0
- > Diaphragm or Piston Sensed
- > Range of O Rings
- > None rising stem
- > Low torque adjustment
- > Threaded or Flanged Options

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Diaphragm or Piston
Max Inlet Pressure:	50bar (725psi) or 400bar (5800psi)
Max Outlet ranges:	Diaphragm – 10bar (145psi), Piston – 300bar (4350psi)
CV options:	2,0
Port size / Connections:	½" NPT, ½" BSP, ¾" NPT, ¾" BSP
Loading Options:	Hand-wheel
Venting / non-venting:	Self-venting or Non-venting
Leakage:	Bubble tight at max WP

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

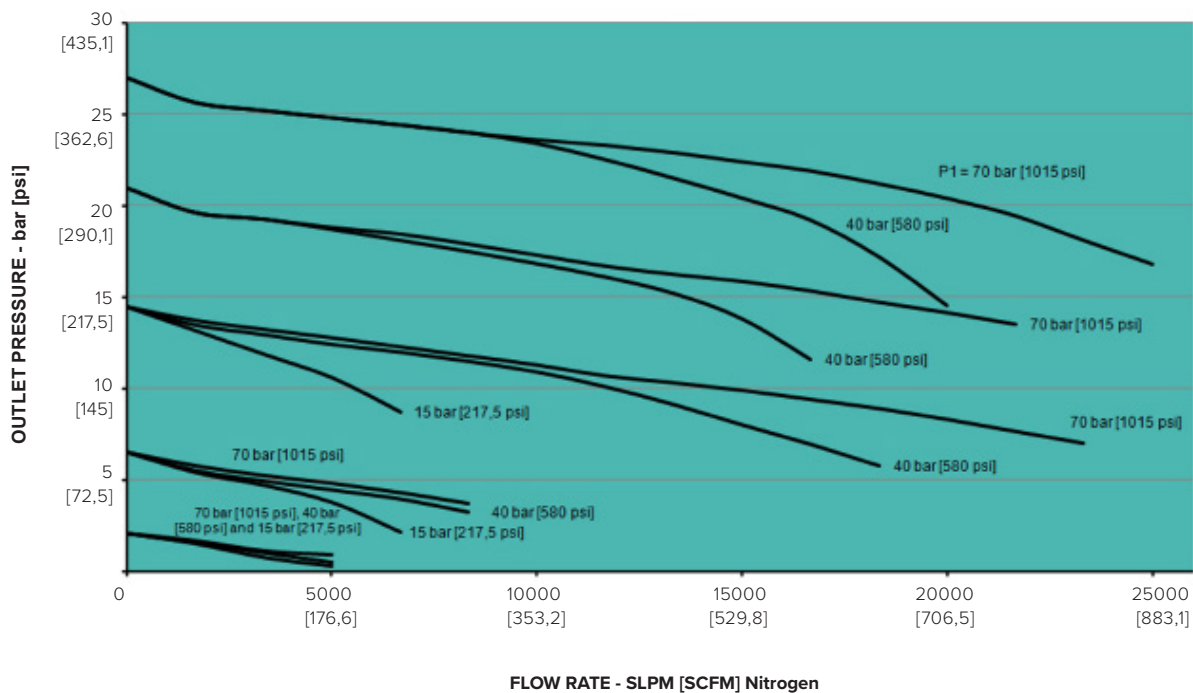
Weight:	5kg
Body & Bonnet material options:	316SS
Wetted parts:	316SS
Seat:	Gas applications – PCTFE
Hydraulic applications:	PEEK
Seat diameter:	10mm
O-ring seals:	NBR, Viton, EPDM

ORDER CODE

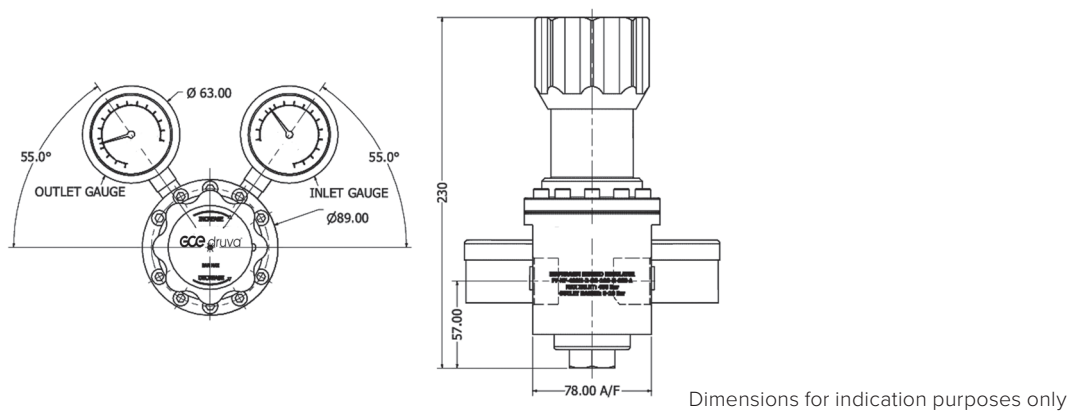
Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connections	Porting configuration	Venting options
MF400G	2	S	20S	V	04N	N	NV
MF400G – Diaphragm sensed, gas service	2 – 2,0	S – 316SS	05S – 0 - 5bar (0 - 73psi) 10S – 0 - 10bar (0 - 145psi)	V – FKP/FPM N – NBR	04N – ½" NPT 04B – ½" BSP	Please select your configuration in the quick reference overview	NV – Non-venting
MF400H – Diaphragm sensed, hydraulic service			50S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi) 200S – 0 - 200bar (0 - 2900psi) 400S – 0 - 400bar (0 - 5800psi)		06N – ¾" NPT 06B – ¾" BSP		
MF401G – Piston sensed, gas service							
MF401H – Piston sensed, hydraulic service							

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



MF-414G – ‘MEDIUM FLOW’ PRESSURE REGULATOR FOR GAS APPLICATIONS PISTON SENSED FOR OUTLET CONTROL TO 414BAR (6000PSI)



DESCRIPTION

The MF-414 is a medium flow piston sensed pressure reducing regulator, which incorporates a balanced main valve to provide stable control under varying inlet pressures. The regulator has a PEEK seat for ultimate protection on gas service. A segregated captured vent allows pressure reduction of the outlet pressure through a 1/4 NPT port on the side of the regulator body.

APPLICATION

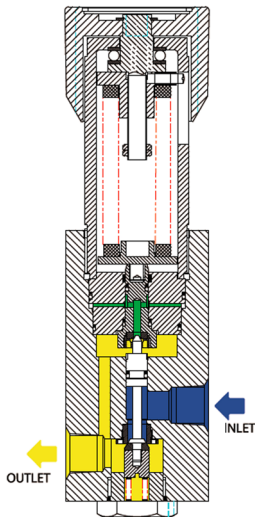
- > Valve Actuator Control
- > Large diameter pipe testing
- > Gas compression systems
- > Automated pressure cycling
- > Aircraft charging carts

SPECIAL FEATURES

- > 414bar (6000psi) inlet pressure
- > Precision machined sensing elements
- > Load bearings and large hand-wheel for low torque adjustment
- > Excellent sensitivity
- > Self-venting and non-venting options

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Piston
Max Inlet Pressure:	414bar (6000psi)
Max Outlet ranges:	Up to 414bar (6000psi)
CV options:	2,0
Port size / Connections:	½" NPT, ¾" NPT, 1" NPT, ½" BSP
Loading Options:	Hand-wheel
Venting / non-venting:	Self-venting or Non-venting
Leakage:	Bubble tight at max WP



TECHNICAL DATA / MATERIALS OF CONSTRUCTION

Weight:	6kg
Body & Bonnet material options:	316SS
Wetted parts:	316SS
Seat:	17-4PH SS or PEEK
O-ring seals:	NBR, Viton, EPDM

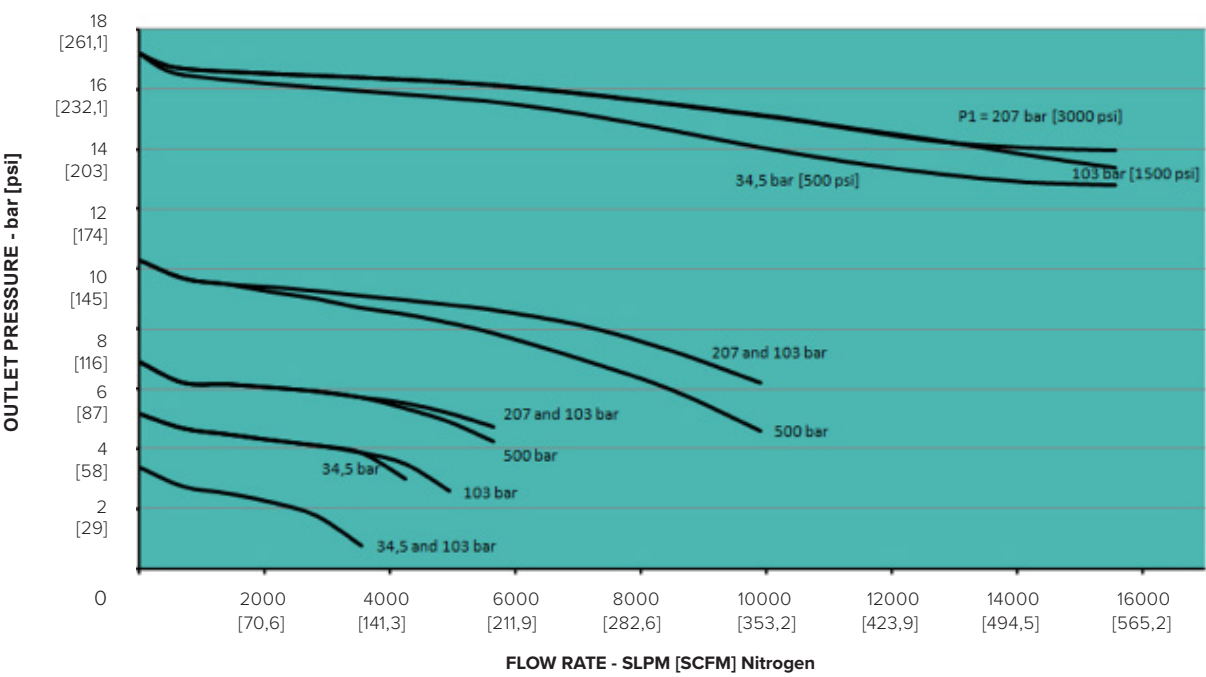
ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connections	Porting configuration	Venting options
MF414G	2	S	20S	V	04N	N	NV
MF414G	2 – 2,0	S – 316SS	50S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi) 200S – 0 - 200bar (0 - 2900psi) 414S – 0 - 414bar (0 - 6000psi)	V – FKP/FPM N – NBR	04N – ½" NPT 04B – ½" BSP 06N – ¾" NPT 08N – 1" NPT	Please select your configuration in the quick reference overview	NV – Non-venting SV – Self-venting

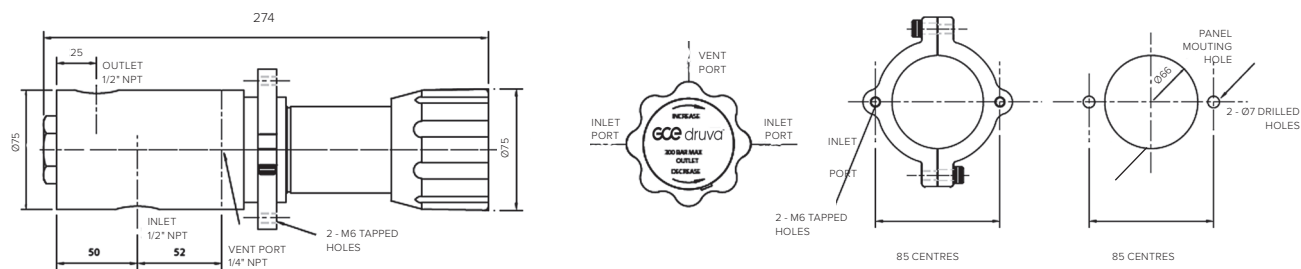
NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS

MF-414 SERIES C - 20



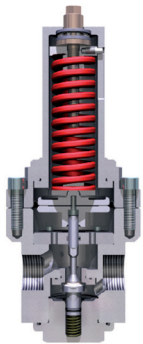
INSTALLATION DIMENSIONS:



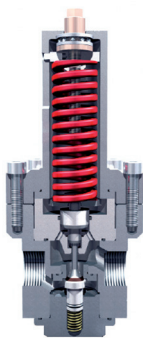
HF300-301 – ‘HIGH FLOW’ PRESSURE REGULATOR FOR LIQUID OR GAS APPLICATIONS DIAPHRAGM AND PISTON SENSED OPTIONS



DIAPHRAGM SENSED DESIGN:



PISTON SENSED DESIGN:



DESCRIPTION

The HF-300 is the diaphragm sensed option and the HF-301 is the piston sensed option. Both the diaphragm sensed and piston sensed options also have gas and hydraulic options. This makes the model a versatile and widely used model.

APPLICATION

> Versatile set of gas & hydraulic applications.

SPECIAL FEATURES

- > 316L SS Wetted Parts
- > Balanced Main Valve
- > Cv 4,0
- > Diaphragm or Piston Sensed
- > Range of O Rings
- > Non-rising stem
- > Low torque adjustment
- > Threaded or Flanged Options

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Diaphragm or Piston
Max Inlet Pressure:	50bar (725psi) or 300bar (4350psi)
Max Outlet ranges:	Diaphragm - 10bar (145psi), Piston – 250bar (3000psi)
CV options:	4,0
Port size / Connections:	¾" NPT, ¾" BSP, 1" NPT, 1" BSP
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

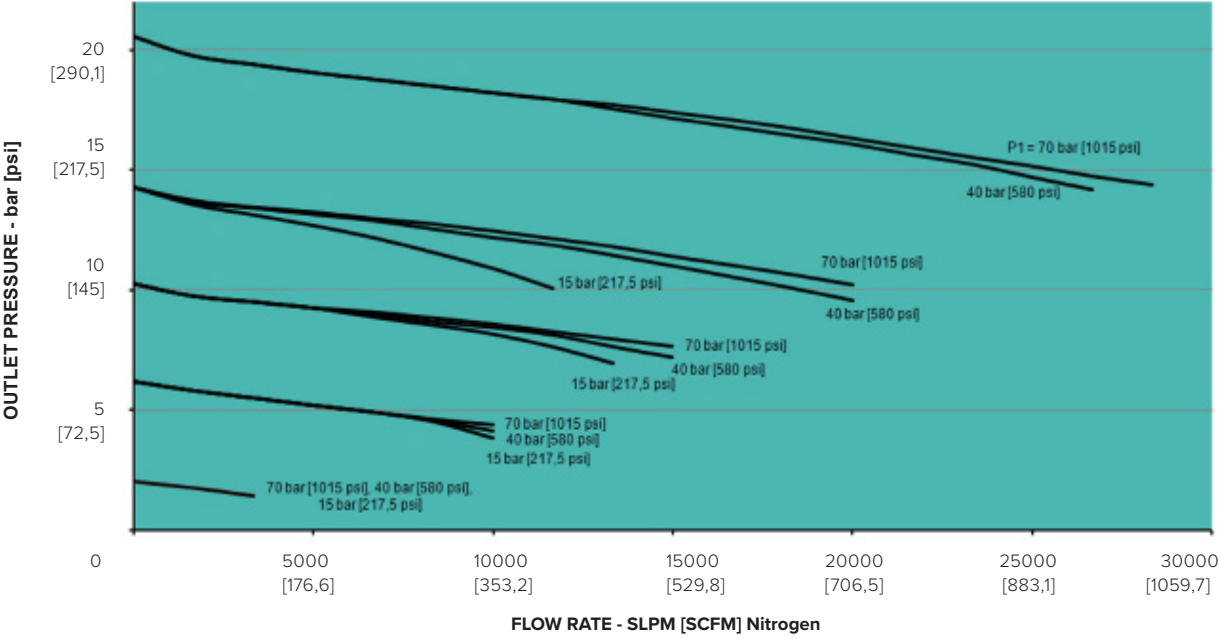
Weight:	8kg
Body & Bonnet material options:	316SS
Wetted parts:	316SS
Seat:	Gas applications – PEEK Hydraulic applications – Vespel
O-ring seals:	NBR, Viton, FKM/FPM, EPDM, FFKM/FFPM

ORDER CODE

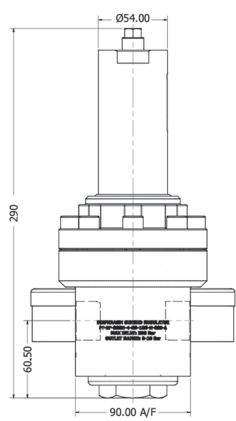
Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connections	Porting configuration	Venting options
HF300G	4	S	20S	V	06N	N	NV
HF300G – Diaphragm sensed, gas service	4 - 4,0	S – 316SS	05S – 0 - 5bar (0 - 73psi) 10S – 0 - 10bar (0 - 145psi)	V – FKP/FPM N – NBR	06N – ¾" NPT 06B – ¾" BSP	Please select your configuration in the quick reference overview	NV – Non-venting
HF300H – Diaphragm sensed, hydraulic service			50S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi)	E – EPDM K – FFKM/FFPM	08N – 1" NPT 08B – 1" BSP		
HF301G – Piston sensed, gas service			250S – 0 - 250bar (0 - 3600psi)				
HF301H – Piston sensed, hydraulic service							

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:

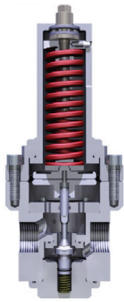


HF250/251 – 7 SERIES - ‘HIGH FLOW’ PRESSURE REGULATOR FOR LIQUID OR GAS APPLICATIONS

DIAPHRAGM AND PISTON SENSED OPTIONS



DIAPHRAGM SENSED DESIGN:



PISTON SENSED DESIGN:



DESCRIPTION

The HF-250 is the diaphragm sensed option and the HF-251 is the piston sensed option. Both the diaphragm sensed and piston sensed options also have gas and hydraulic options. This makes the model a versatile and widely used model. This is the 7-Series, with Cv 7,0. There is also the option for this regulator with a Cv 12,0.

Pilot regulator option is the LF-540 or LF692 and needs to be ordered separately.

APPLICATION

> Versatile set of gas & hydraulic applications.

SPECIAL FEATURES

- > 316L SS Wetted Parts
- > Balanced Main Valve
- > Cv 7,0 (12,0 is optional)
- > Diaphragm or Piston Sensed
- > Range of O Rings
- > Non-rising stem
- > Low torque adjustment
- > Threaded or Flanged Options

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Diaphragm or Piston
Max Inlet Pressure:	50bar (725psi) or 300bar (4350psi)
Max Outlet ranges:	Diaphragm - 10bar (145psi), Piston – 300bar (3600psi)
CV options:	7,0 or 12,0
Port size / Connections:	¾" NPT, ¾" BSP, 1" NPT, 1" BSP
Loading Options:	Hand-wheel, dome-loaded
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

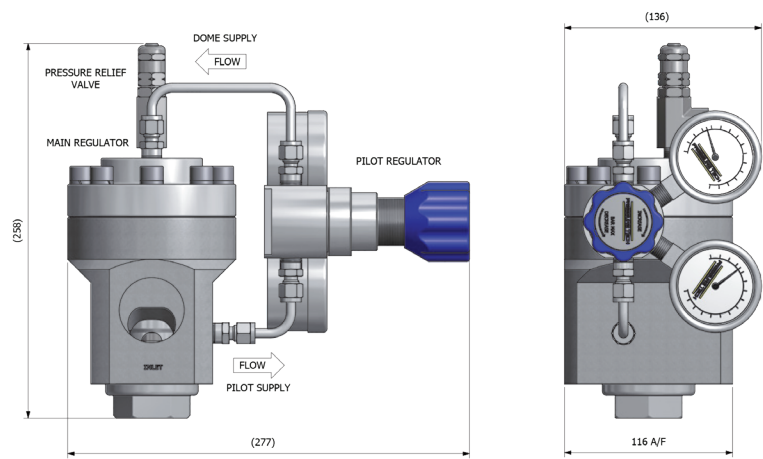
Weight:	4,8kg
Body & Bonnet material options:	316SS
Wetted parts:	316SS
Seat:	Gas applications – PCTFE Hydraulic applications - PEEK
Seat diameter:	14mm
O-ring seals:	NBR, FKM/FPM

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connesctions	Porting configuration	Venting options
HF250G	7	S	20S	V	06N	N	NV
HF250G – Diaphragm sensed, gas service	7 – 7,0	S – 316SS	05S – 0 - 5bar (0 - 73psi)	V – FKP/FPM	08N – 1" NPT	Please select your configuration in the quick reference overview	NV – Non-venting
HF250H – Diaphragm sensed, hydraulic service	12 – 12,0		10S – 0 - 10bar (0 - 145psi)	N – NBR	08B – 1" BSP		
HF251G – Piston sensed, gas service			50S – 0 - 50bar (0 - 725psi)		12N – 1 1/2 " NPT		
HF251H – Piston sensed, hydraulic service			100S – 0 - 100bar (0 - 1450psi)				
			250S – 0 - 250bar (0 - 3600psi)				
			10D – 0 - 10bar (0 - 145psi) (dome loaded option)				
			50D – 0 - 50bar (0 - 725psi) (dome loaded option)				

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



HYD-691 – ‘LOW FLOW’ HYDRAULIC PRESSURE REDUCING REGULATOR PISTON SENSED FOR OUTLET CONTROL TO 690BAR (10.000PSI)



DESCRIPTION

The HYD-691 is the compact version of the highly successful LF-690/691. It has been designed as the economical alternative, yet still incorporates all the key features of the larger regulator, including ceramic seats. The ceramic ball has a ‘glass like’ finish to provide a positive shut-off and is also fully supported to ensure fixed travel in the Y-axis. The ceramic seat is incorporated into a unique cartridge assembly which is supplied as one piece.

APPLICATION

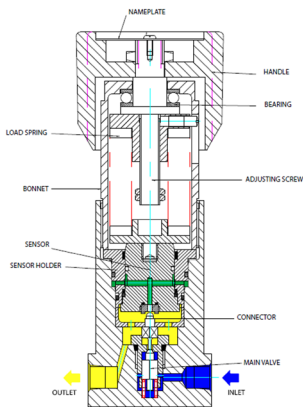
- > Wellhead logic and control systems
- > Subsea valve actuator control
- > Valve test rigs
- > Liquid sampling
- > Hydraulic power packs

SPECIAL FEATURES

- > Compact economical design
- > 690bar (10.000psi) inlet pressure
- > Precision machined sensing elements
- > Load bearings and large handwheel for low torque adjustment SS Panel Mounting Ring

PRODUCT DATA

Fluid Type:	Hydraulic
Sensing element:	Piston
Max Inlet Pressure:	690bar (10.000psi)
Max Outlet ranges:	Up to 690bar
CV options:	0,06
Port size / Connections:	¼" NPT, 3/8" NPT, 3/8" MP, ½" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Self-venting or non-venting
Leakage:	Bubble tight seal at max inlet pressure



TECHNICAL DATA / MATERIALS OF CONSTRUCTION

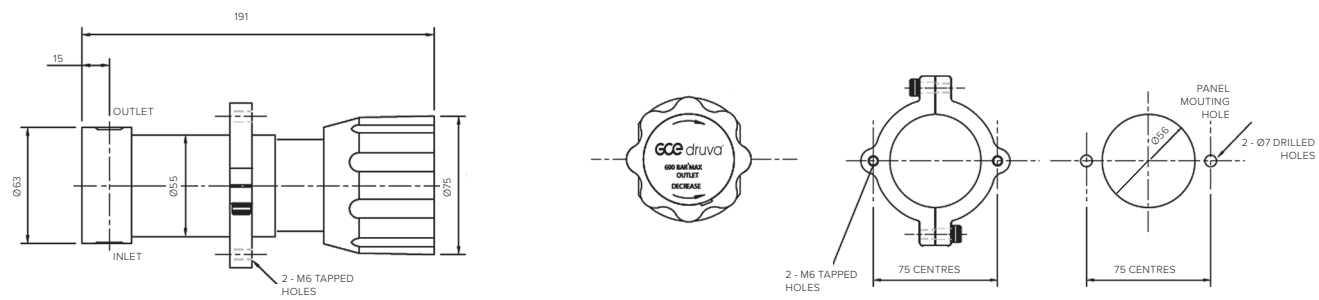
Weight:	2,5kg
Body & wetted parts material options:	316SS
Bonnet:	316SS
Seat:	Ceramic TX3000
O-ring seals:	NBR, Viton, EPDM

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connesctions	Porting configuration	Venting options
HYD691	06	S	100S	N	03N	N	SV
HYD691	06 – 0,06	S – 316SS (690bar inlet)	050S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi) 200S – 0 - 200bar (0 - 2900psi) 414S – 0 - 414bar (0 - 6000psi) 690S – 0 - 690bar (0 - 10.000psi)	N – NBR V – FKM/FPM E – EPDM	02N – ¼" NPT 03N – 3/8" NPT 04N – ½" NPT 03A – 3/8" MP	Please select your configuration in the quick reference overview	SV – Self-venting NV – Non-venting

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



LGC-690 – ‘LOGIC’ LOW PRESSURE HYDRAULIC REDUCING REGULATOR FOR OUTLET CONTROL TO 414BAR (8000PSI)



DESCRIPTION

The LGC-690 provides accurate low pressure control on Logic Control Systems used on Wellhead control Panels where low dead-band and repeatable pressure control is critical.

APPLICATION

> Wellhead logic control systems

SPECIAL FEATURES

- > Large precision machined piston sensed element
- > Setpoint dead-band +/- 0,25bar per 100bar inlet pressure
- > Easy-to-service main valve cartridge assembly
- > Balanced main valve
- > 30 micron filter element
- > Self-venting with captured port

PRODUCT DATA

Fluid Type:	Hydraulic
Sensing element:	Piston
Max Inlet Pressure:	414bar (8000psi)
Max Outlet ranges:	Up to 10bar
CV options:	0,3
Port size / Connections:	¼" NPT, 3/8" NPT, ½" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Self-venting
Leakage:	Bubble tight seal at max inlet pressure

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

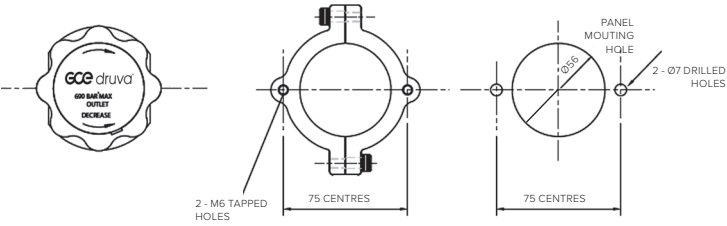
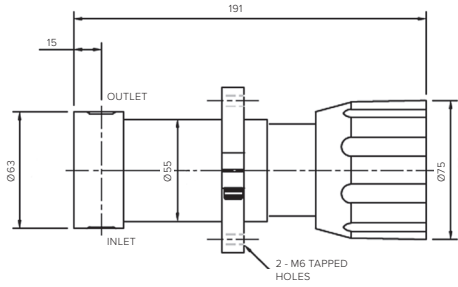
Weight:	3,5kg
Body & wetted parts material options:	316SS
Bonnet:	316SS
Seat:	PEEK
O-ring seals:	NBR, Viton

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connesctions	Porting configuration	Venting options
LGC690	03	S	10S	N	03N	N	SV
LGC690	03 – 0,3	S – 316SS (690bar inlet)	10S – 0 - 10bar 15S – 0 - 115bar	N – NBR	02N – ¼" NPT 03N – 3/8" NPT 04N – ½" NPT	Please select your configuration in the quick reference overview	SV – Self-venting

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



LF-690/691 – 'LOW FLOW' HYDRAULIC PRESSURE REDUCING REGULATOR

FOR WATER GLYCOL APPLICATIONS PISTON SENSED FOR OUTLET CONTROL TO 1380BAR (20.000PSI)



DESCRIPTION

The LF-690/691 uses Ceramic Seating to provide ultimate protection against the harsh service encountered on hydraulic water glycol services. The unique seating cartridge provides a dampening action on this critical component to prevent 'chattering' or 'unstable frequency resonance'. The regulator is self relieving with segregated captured vent to prevent deterioration to the loading mechanism and making the regulator cleaner to service. The seating area can easily be accessed from the base of the regulator for speedy servicing in suit.

APPLICATION

- > Wellhead logic and control systems
- > Subsea valve actuator control
- > Valve test rigs
- > Liquid sampling
- > Hydraulic Power Packs

SPECIAL FEATURES

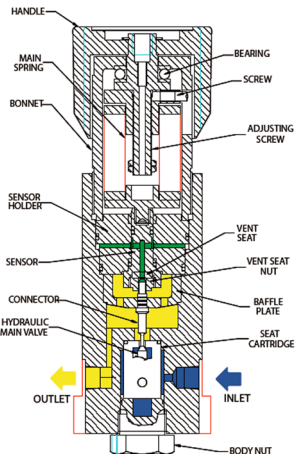
- > 5 sensor ranges for combination of low torque and high sensitivity
- > Segregated captured vent
- > 316SS panel mounting ring
- > Optional Cv 0,3 for quick fill umbilical systems

PRODUCT DATA

Fluid Type:	Hydraulic, Water Glycol
Sensing element:	Piston
Max Inlet Pressure:	1380bar (20.000psi), 1034bar (20.000psi) (Air-Actuated)
Max Outlet ranges:	Up to 1380bar (20.000psi), 1034bar (20.000psi) (Air-Actuated)
CV options:	0,05 – 0,1 – 0,3 (Max 1034bar)
Port size / Connections:	¼" NPT, 3/8" NPT, 3/8" MP, ½" NPT, 9/16" MP
Loading Options:	Hand-wheel or Air-actuated
Venting / non-venting:	Self-venting & Non-venting
Leakage:	Bubble tight seal at max inlet pressure

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

Weight:	Approx. 4kg (without flanges)
Body & wetted parts material options:	316SS or 17-4PH SS
Bonnet:	316SS
Seat:	Ceramic, TX3000
O-ring seals:	NBR, Viton, EPDM



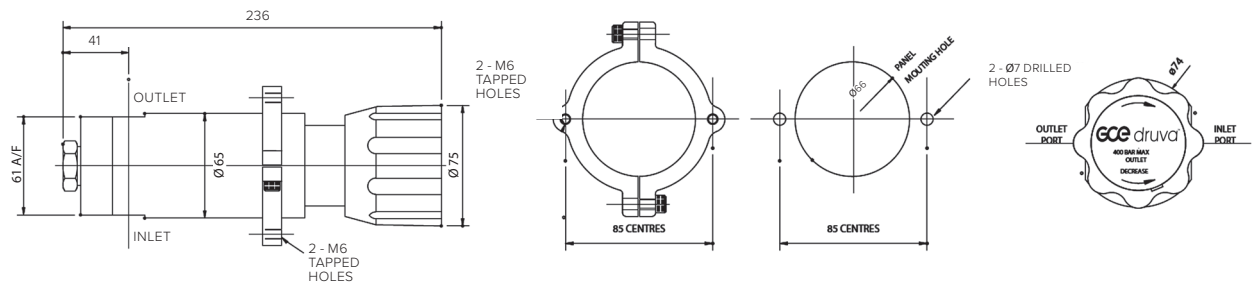
Assembly drawing for reference only. Refer to office for specific detail.

ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connesctions	Porting configuration	Venting options
LF691	01	S	100S	N	03A	N	SV
LF690 (max 690bar)	01 – 0,1 05 – 0,05	S – 316SS (690bar inlet)	150S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi)	N – NBR V – FKM/FPM	02N – ¼" NPT 03N – 3/8" NPT	Please select your configuration in the quick reference overview	SV – Self-venting NV – Non-venting
LF691 (max 1380bar)	03 – 0,3	R – 17-4PH (1380bar inlet)	200S – 0 - 200bar (0 - 2900psi) 414S – 0 - 414bar (0 - 6000psi) 690S – 0 - 690bar (0 - 10.000psi) 862S – 0 - 862bar (0 - 12.500psi) 1034S – 0 - 1034bar (0 - 15.000psi) 1380S – 0 - 1380bar (0 - 20.000psi) 140A – 0 - 140bar (0 - 2000psi) (Air-actuated) 600A – 0 - 600bar (0 - 8700psi) (Air-actuated) 1034A – 0 - 1034bar (0 - 15.000psi) (Air-actuated)	E – EPDM H – HNBR	04N – ½" NPT 03A – 3/8" MP 04A – 9/16" MP		

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



MF-414H – ‘MEDIUM FLOW’ PRESSURE REDUCING REGULATOR FOR HYDRAULIC APPLICATIONS PISTON SENSED FOR OUTLET CONTROL TO 414BAR (6000PSI)



DESCRIPTION

The MF-414 is a medium flow piston sensed pressure reducing regulator, which incorporates a balanced main valve to provide stable control under varying inlet pressures.

SPECIAL FEATURES

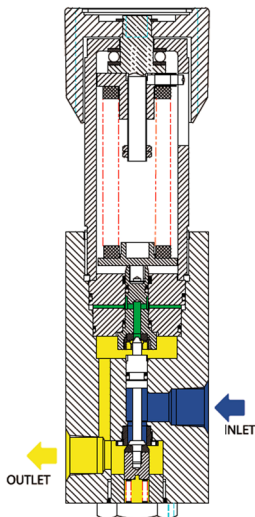
- > 414bar (6000psi) inlet pressure
- > Precision machined sensing elements
- > Load bearings and large hand-wheel for low torque adjustment
- > Excellent sensitivity
- > Self-venting and non-venting options

APPLICATION

- > Medium flow hydraulic control systems like for umbilical reels, IWOCs, or BOP.
- > Valve Actuator Control
- > Large diameter pipe testing
- > Automated pressure cycling

PRODUCT DATA

Fluid Type:	Hydraulic
Sensing element:	Piston
Max Inlet Pressure:	414bar (6000psi)
Max Outlet ranges:	Up to 414bar (6000psi)
CV options:	2,0
Port size / Connections:	½" NPT, ½" BSP, ¾" NPT, 1" NPT, 9/16" AE MP
Loading Options:	Hand-wheel or air-actuated
Venting / non-venting:	Self-venting or Non-venting
Leakage:	Bubble tight at max WP



TECHNICAL DATA / MATERIALS OF CONSTRUCTION

Weight:	6kg
Body & Bonnet material options:	316SS
Wetted parts:	316SS
Seat:	7-4PH SS or PEEK
O-ring seals:	NBR, Viton, EPDM

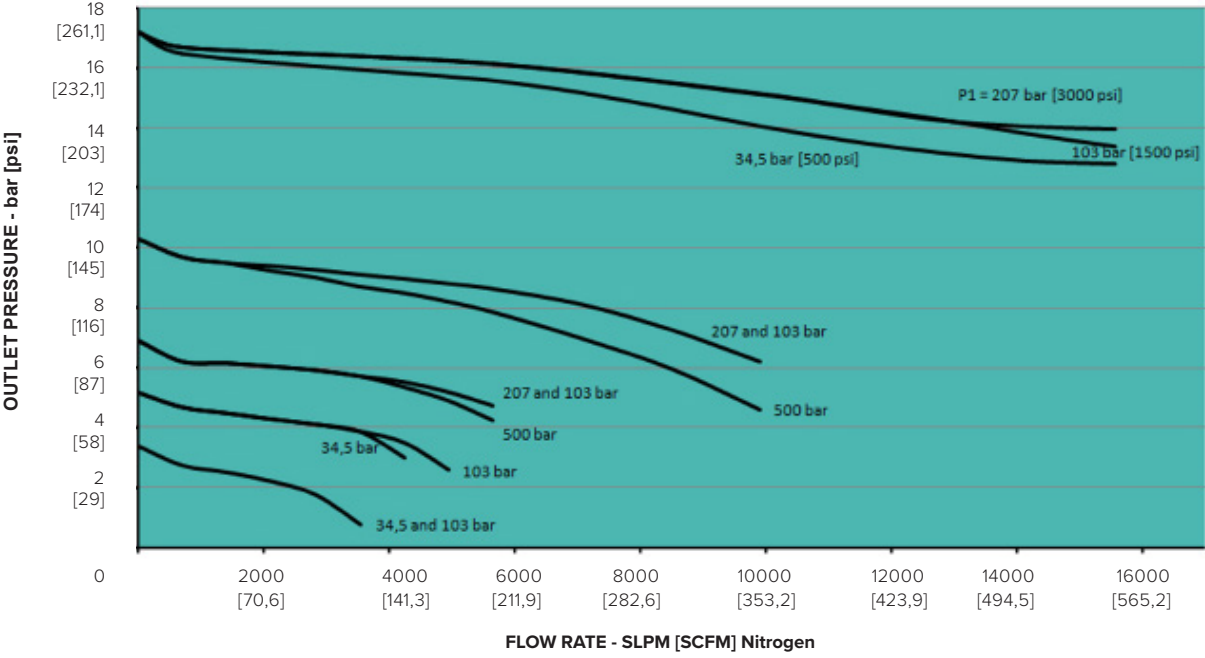
ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connections	Porting configuration	Venting options
MF414H	2	S	20S	V	04N	N	NV
MF414H	2 – 2,0	S – 316SS	50S – 0 - 50bar (0 - 725psi) 100S – 0 - 100bar (0 - 1450psi) 200S – 0 - 200bar (0 - 2900psi) 414S – 0 - 414bar (0 - 6000psi) 140A – 0 - 140bar (0 - 2000psi) (Air-actuated) 400A – 0 - 400bar (0 - 5800psi) (Air-actuated)	V – FKP/FPM N – NBR E – EPDM	04N – ½" NPT 04B – ½" BSP 06N – ¾" NPT 08N – 1" NPT 08A – 9/16" AE MP	Please select your configuration in the quick reference overview	SV – Self Venting NV – Non Venting

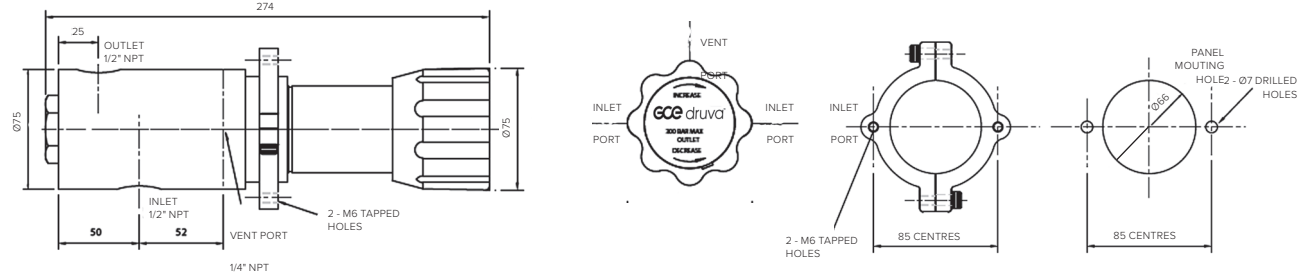
NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS

MF-414 SERIES $C_v = 2.0$



INSTALLATION DIMENSIONS:



BP-300 SERIES - 'LOW FLOW' BACK PRESSURE REGULATOR DIAPHRAGM SENSED FOR INLET CONTROL TO 20BAR (290PSI)



DESCRIPTION

The BP-300 has been designed with a convoluted Inconel X750 diaphragm that lasts 50% longer than a typical stainless steel designs. Its compact simple design makes it ideal for general purpose applications, where accurate control of upstream pressure is required.

APPLICATION

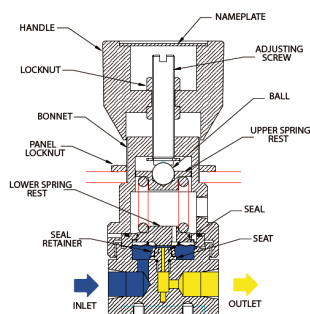
- > Gas and Liquid Analyzer Systems
- > Blanketing applications
- > Laboratories & Research Labs

SPECIAL FEATURES

- > Metal to metal diaphragm sealing
- > Positive sealing against Viton seat
- > Lightweight compact design
- > Strong and sensitive diaphragm element
- > High Accuracy

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Diaphragm
Max rated pressure:	50bar (725psi)
Pressure Control ranges:	Up to 20bar (290psi)
CV options:	0,1
Port size / Connections:	¼" NPT
Loading Options:	Hand-wheel
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	0,9kg



Assembly drawing for reference only. Refer to office for specific detail.

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

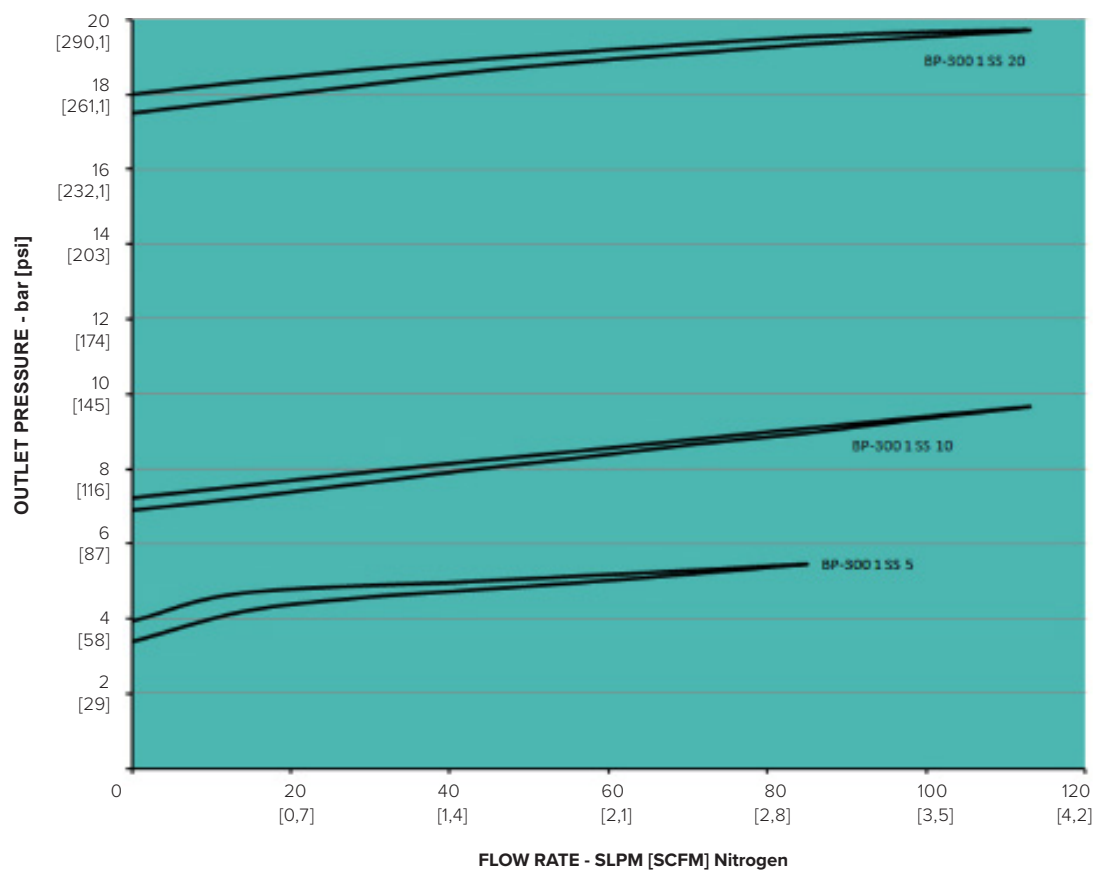
Regulator Part:	Material
Body & Bonnet:	316SS
Seat retainer:	316SS
Soft seat:	Viton
Valve spring:	Inconel X750
Diaphragm:	Inconel X750
Hand-wheel:	Nylon
Diaphragm washer:	Brass
Spring rests:	316SS
O-ring seals:	Viton
Adjusting screw:	Alu Bronze
Loading spring:	302SS

ORDER CODE

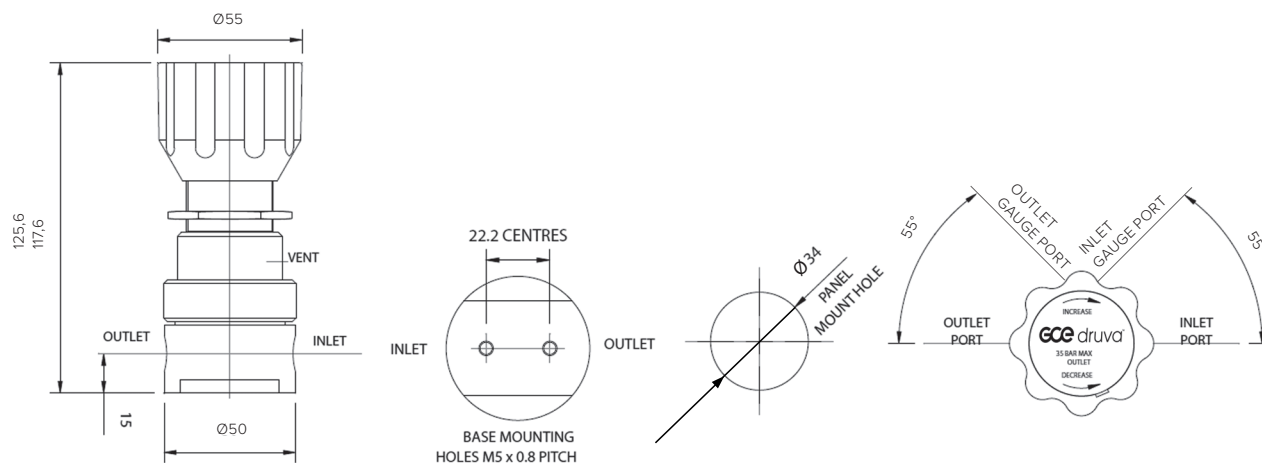
Basic Model	Cv Value	Body material	Pressure control ranges	Seat	Porting configuration
BP300	1	S	10S	V	N
BP300	01 – 0,1	S – 316SS	01S – 0 - 1bar (0 - 14,5psi) 02S – 0 - 2bar (0 - 30psi) 04S – 0 - 4bar (0 - 60psi) 10S – 0 - 10bar (0 - 145) 20S – 0 - 20bar (0 - 290psi)	V – Viton	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



BP-301 BACK PRESSURE REGULATOR PISTON SENSED FOR MEDIUM PRESSURE APPLICATIONS



DESCRIPTION

The BP-301 incorporates a highly sensitive piston to control pressures up to 150 bar with the lower Cv value of 0,1 and up to 35 bar with a higher Cv of 0,5. Both designs provide accurate back pressure control on liquid or gas applications. Unlike relief valves, the set load from the spring is not directly applied to the seating area, and the piston sensor provides accurate control throughout the control range.

APPLICATION

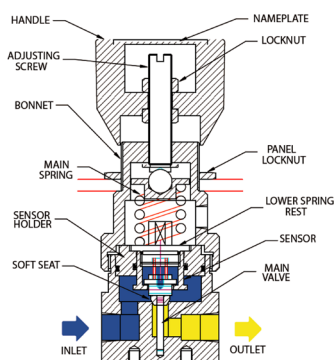
- > Fuel Analyzer Systems
- > Portable Calibration Kits
- > Medium Pressure Reactor Vessels
- > Instrument Air Lines

SPECIAL FEATURES

- > Lightweight compact design
- > Piston sensing element
- > High accuracy

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Piston
Max rated pressure:	225bar (3263psi)
Pressure Control ranges:	Cv 0,1 – Up to 150bar (2175psi), Cv 0,5 – Up to 35bar (507psi)
CV options:	0,1 – 0,5
Port size / Connections:	¼" NPT, 3/8" NPT, ½" NPT
Loading Options:	Hand-wheel
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	0,9kg



Assembly drawing for reference only. Refer to office for specific detail.

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

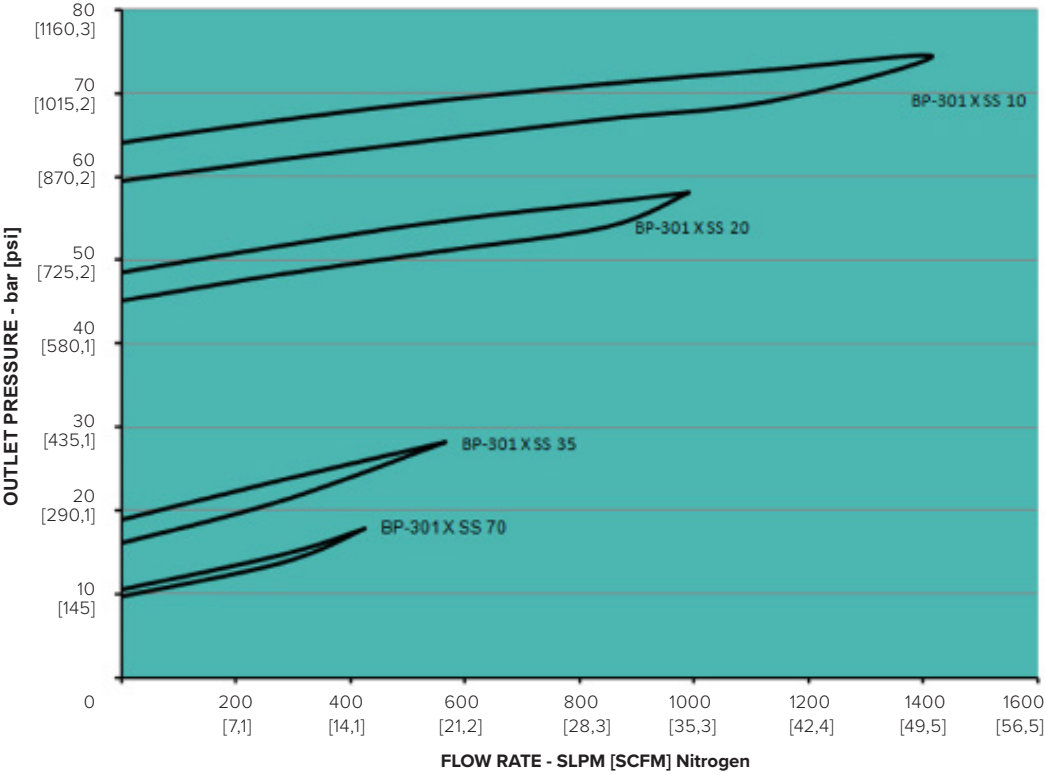
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve pin:	316SS
Soft seat cone:	Liquid application – PEEK, Gas application - PCTFE
Valve spring:	Inconel X750
Sensor & holder:	316SS
Hand-wheel:	Nylon
Spring rests:	316SS
O-ring seals:	Viton
Adjusting screw:	Alti Bronze
Loading spring:	302SS

ORDER CODE

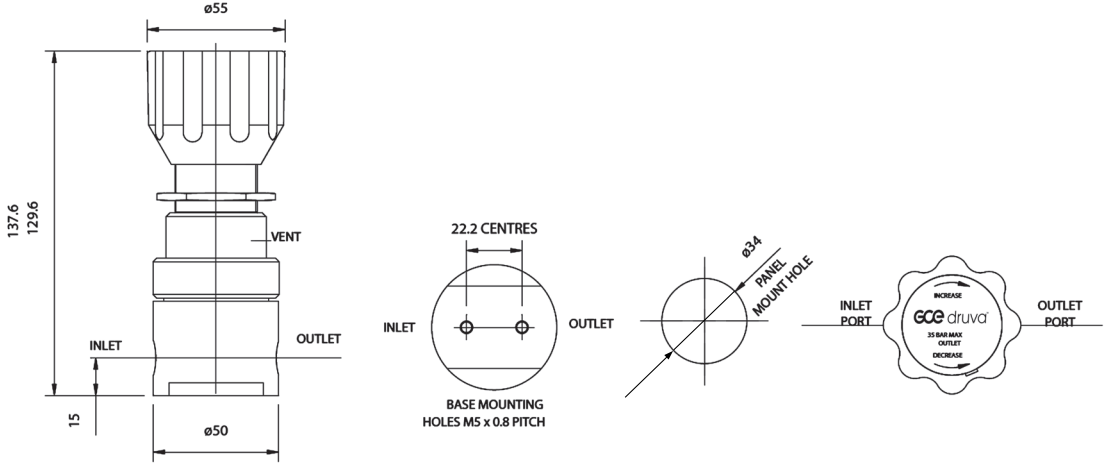
Basic Model	Cv Value	Body material	Pressure control ranges	Seat	Port connections	Porting configuration
BP301	01	S	10S	V	02N	N
BP301	01 – 0,1 05 – 0,5	S – 316SS	10S – 0 - 10bar (0 - 145psi) 20S – 0 - 20bar (0 - 290psi) 35S – 0 - 35bar (0 - 507psi) 70S – 0 - 70bar (0 - 1000psi) (Cv 0,1) 150S – 0 - 150bar (0 - 2175psi) (Cv 0,1)	V – Viton N – NBR	02N – ¼" NPT 02B – ¼" BSP 03N – 3/8" NPT 04N – ½" NPT	Please select your configuration in the quick reference overview

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS



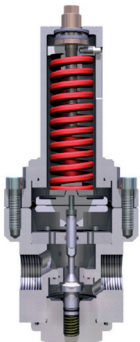
INSTALLATION DIMENSIONS:



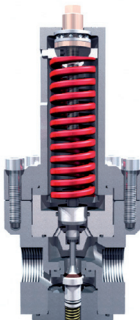
BP-MF400/401 BACK PRESSURE REGULATOR DIAPHRAGM & PISTON SENSED FOR MEDIUM PRESSURE LIQUID AND GAS APPLICATIONS



DIAPHRAGM SENSED DESIGN:



PISTON SENSED DESIGN:



DESCRIPTION

The BP-MF400/401 series is the Back Pressure Regulator version of the MF 400/401. The BP-MF400 is the diaphragm sensed option. The BP-MF401 is the piston sensed option. Both options can be used for gas and liquids. This makes it a versatile and widely used model.

APPLICATION

- > Hydraulic test stands
- > Process control
- > Pump discharge control

SPECIAL FEATURES

- > Diaphragm & piston sensed
- > Range of O-rings available
- > Low torque adjustment
- > Cv 2,0

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Diaphragm, Piston
Max rated inlet pressure:	690bar (10.000psi)
Pressure control ranges:	414bar (6000psi)
CV options:	2,0
Port size / Connections:	½" NPT, ½" BSP, ¾" NPT, ¾" BSP, 1" NPT, 1" BSP
Loading Options:	Hand-wheel
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	5kg

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

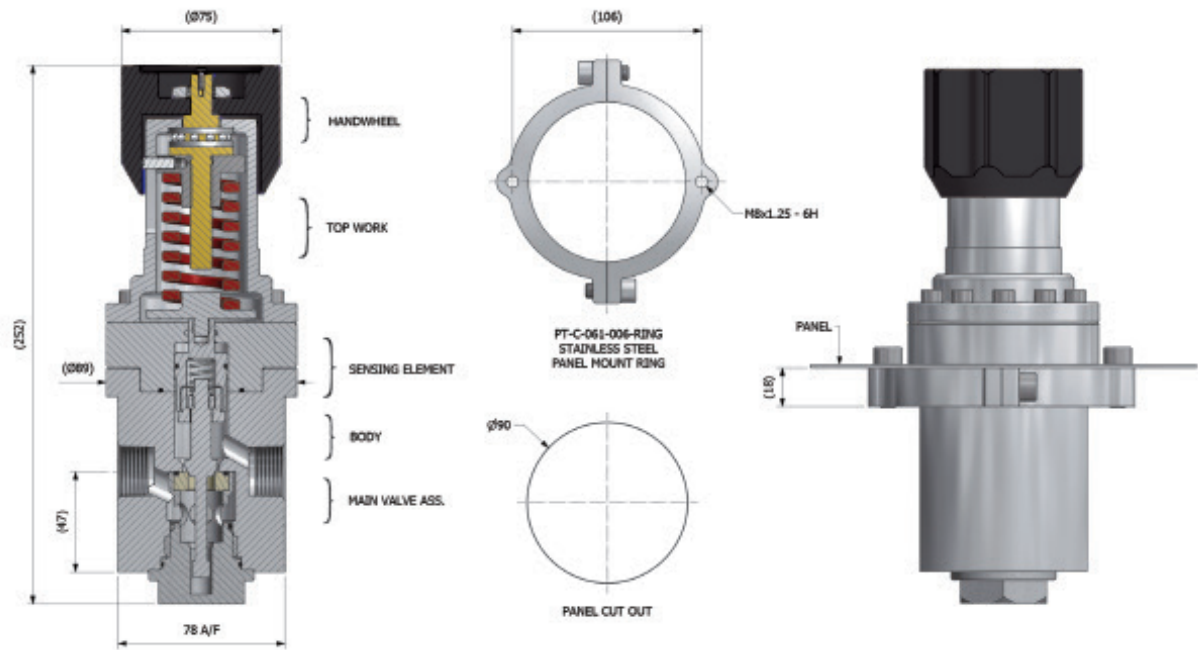
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve pin:	316SS
Soft seat cone:	Liquid application – PEEK, Gas application – PCTFE
Valve spring:	302SS
Sensor & holder:	316SS
Hand-wheel:	Nylon
Spring rests:	316SS
O-ring seals:	Viton
Adjusting screw:	Alu Bronze
Loading spring:	316SS

ORDER CODE

Basic Model	Cv Value	Body material	Pressure control ranges	Seat	Inlet/outlet connections	Porting configuration
BPMF400G	2	S	20S	V	04N	N
BPMF400G – Diaphragm sensed, gas service	2 – 2,0	S – 316SS	05S – 0 - 5bar (0 - 73psi)	V – FKP/FPM	04N – ½" NPT	Please select your configuration in the quick reference overview
BPMF400H – Diaphragm sensed, hydraulic service			10S – 0 - 10bar (0 - 145psi)	N – NBR	04B – ½" BSP	
BPMF401G – Piston sensed, gas service			50S – 0 - 50bar (0 - 725psi)		06N – ¾" NPT	
BPMF401H – Piston sensed, hydraulic service			100S – 0 - 100bar (0 - 1450psi)		06B – ¾" BSP	
			200S – 0 - 200bar (0 - 2900psi)		08N – 1" NPT	
			414S – 0 - 414bar (0 - 6000psi)		08B – 1" BSP	

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS BPMF401G:



BP-LF690 'LOW FLOW' BACK PRESSURE REGULATOR PISTON SENSED FOR LIQUID OR GAS APPLICATIONS



DESCRIPTION

The BP-LF690 is a back pressure regulator for gas or liquid applications suited for typical low flow applications up to 10lpm (liquid). This accurate regulator controls pressure and vents excess pressure back via the threaded 1/4" NPT outlet port.

APPLICATION

- > Chemical injection systems
- > Valve test rigs
- > Liquid sampling
- > Supercritical liquid

SPECIAL FEATURES

- > Metal to metal seating for liquid and PEEK seating for Gas
- > Precision machined sensing elements
- > 3 Sensor ranges for combination of low torque and high sensitivity
- > Captured outlet port
- > Optional 316SS Panel mounting ring

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Piston
Max rated inlet pressure:	690bar (10.000psi)
Pressure control ranges:	Hand-wheel – Up to 690bar (10.000psi) Air actuated – Up to 600bar (8700psi)
CV options:	0,02 – 0,1
Port size / Connections:	1/4" NPT, 3/8" NPT, 1/2" NPT
Loading Options:	Hand-wheel or Air-actuated
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	0,9kg

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

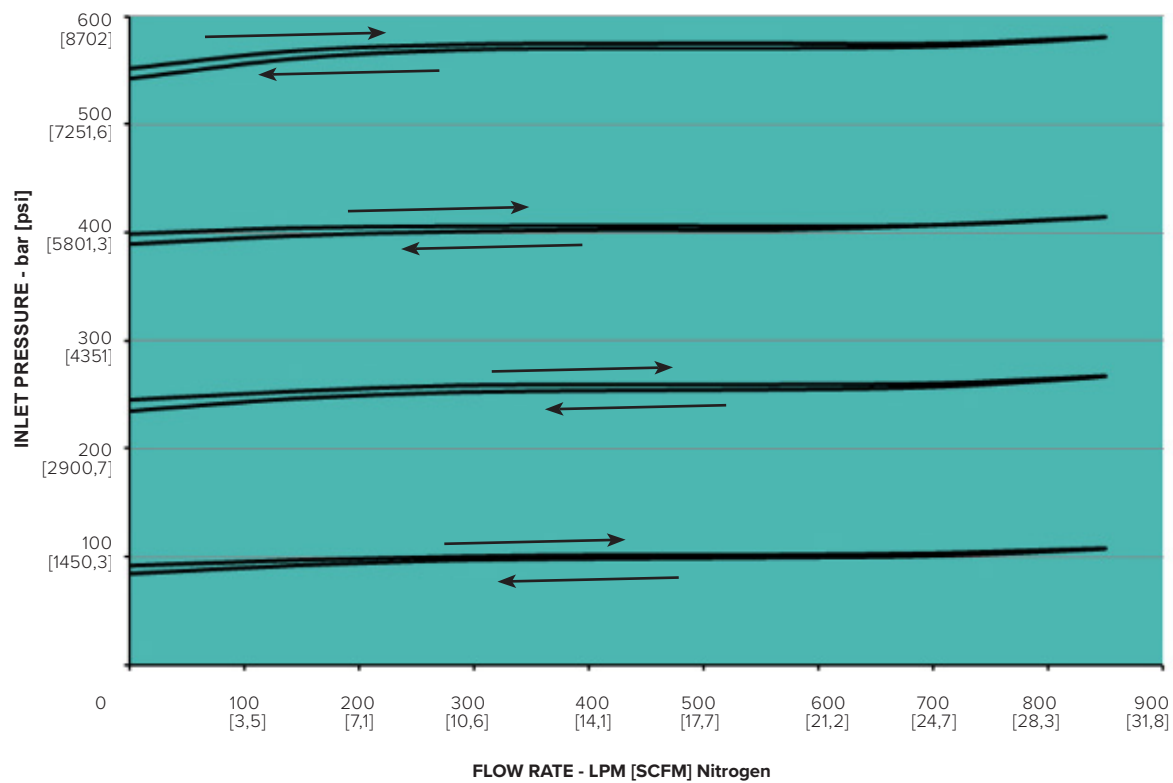
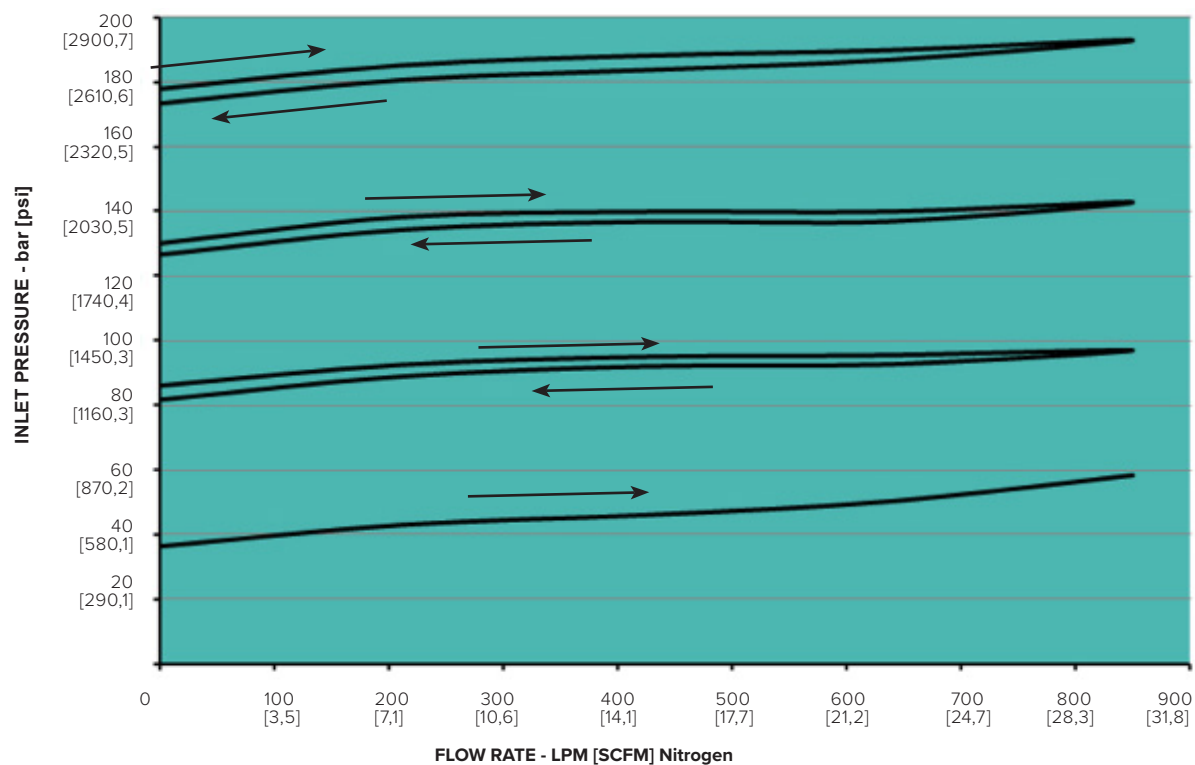
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve:	Alloy 718
Seat:	Liquid application – 17-4PH SS, Gas application – PEEK
Valve spring:	302SS
Baffle plate:	316SS
Sensor & holder:	316SS
Hand-wheel:	Nylon
Spring rests:	316SS
O-ring seals:	NBR, Viton, EPDM
Adjusting screw:	Alu Bronze
Loading spring:	302SS
Lubricant:	Krytox GPL 205

ORDER CODE

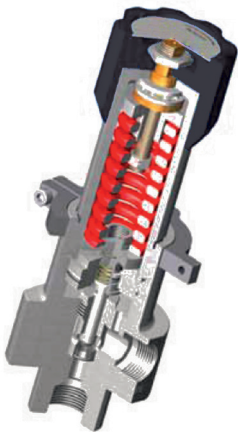
Basic Model	Cv Value	Body material	Outlet ranges (Examples*)	Seat	Inlet/outlet connections	Porting configuration
BPLF690H	1	S	414S	V	03N	N
BPLF690G – Gas service	01 – 0,1	S – 316SS	50S – 0 - 50bar (0 - 725psi)	V – Viton	02N – 1/4" NPT	Please select your configuration in the quick reference overview
BPLF690H – Hydraulic service	02 – 0,02		100S – 0 - 100bar (0 - 1450psi)	N – NBR	03N – 3/8" NPT	
			200S – 0 - 200bar (0 - 2900psi)	E – EPDM	04N – 1/2" NPT	
			414S – 0 - 414bar (0 - 6000psi)	K – FFKM /		
			690S – 0 - 690bar (0 - 10.000psi)	FFPM		
			140A – 0 - 140bar (0 - 2000psi) (Air-actuated)			
			600A – 0 - 600bar (0 - 8700psi) (Air-actuated)			

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS



BP-MF690-05 SERIES 'MEDIUM FLOW' BACK PRESSURE REGULATOR PISTON SENSED FOR LIQUID OR GAS APPLICATIONS WITH CV 0,5



DESCRIPTION

The BP-MF690 is a back pressure regulator for gas or liquid applications suited for typical low flow applications up to 50 lpm (liquid). This accurate regulator controls inlet pressure and vents excess pressure back via the threaded 1/2" NPT outlet port.

APPLICATION

- > Chemical injection systems
- > Valve test rigs
- > Liquid sampling
- > Supercritical liquid

SPECIAL FEATURES

- > Metal to metal seating for liquid and PEEK seating for Gas
- > Precision machined sensing elements
- > 3 Sensor ranges for combination of low torque and high sensitivity
- > Captured outlet port
- > Optional 316SS Panel mounting ring

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Piston
Max rated inlet pressure:	690bar
Pressure control ranges:	Hand-wheel – Up to 690bar (10.000psi) Air actuated – Up to 600bar (8.700psi)
CV options:	0,5
Port size / Connections:	3/8" NPT, 3/8" MP, 1/2" NPT, 1/2" MP
Loading Options:	Hand-wheel or Air-actuated
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	3,4kg

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

Regulator Part:	Material
Body & Bonnet:	316SS
Main valve:	Alloy 718
Seat:	Liquid application – 17-4PH SS, Gas application – PEEK
Valve spring:	302SS
Baffle plate:	316SS
Sensor & holder:	316SS
Hand-wheel:	Nylon
Spring rests:	316SS
O-ring seals:	NBR, Viton, EPDM
Adjusting screw:	Ali Bronze
Loading spring:	302SS
Lubricant:	Krytox GPL 205

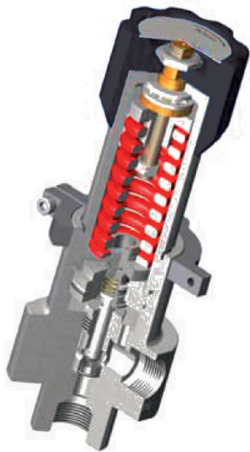
ORDER CODE

Basic Model	Cv Value	Body material	Outlet ranges (Examples*)	Seat	Inlet/outlet connections	Porting configuration
BPMF690H	05	S	414S	V	03N	N
BPMF690G – Gas service	05 – 0,5	S – 316SS	50S – 0 - 50bar (0 - 725psi)	V – Viton	03N – 3/8" NPT	Please select your configuration in the quick reference overview
BPMF690H – Hydraulic service			100S – 0 - 100bar (0 - 1450psi)	N – NBR	03A – 3/8" MP	
			200S – 0 - 200bar (0 - 2900psi)	E – EPDM	04N – 1/2" NPT	
			414S – 0 - 414bar (0 - 6000psi)	K – FFKM /	04A – 1/2" MP	
			690S – 0 - 690bar (0 - 10.000psi)	FFPM		
			140A – 0 - 140bar (0 - 2000psi) (Air-actuated)			
			600A – 0 - 600bar (0 - 8700psi) (Air-actuated)			

NOTE: Please contact us for any non-standard requests.

BP-MF690-15 SERIES 'MEDIUM FLOW' BACK PRESSURE REGULATOR PISTON SENSED

FOR LIQUID OR GAS APPLICATIONS WITH CV 1,5



DESCRIPTION

The BP-MF690 is a back pressure regulator for gas or liquid applications. The liquid version includes ceramic seating for ultimate protection against cavitation and erosion on aggressive application media such as water glycol and methanol. This accurate regulator controls the pressure and vents excess pressure back via the threaded 3/4" NPT outlet port.

APPLICATION

- > Chemical injection systems
- > Valve test rigs
- > Methanol Injections systems
- > Supercritical liquid

SPECIAL FEATURES

- > NEW ceramic seating for liquid & PEEK seating for Gas
- > Precision machined sensing element
- > Captured outlet port
- > Optional flanged connections
- > Optional 316SS Panel mounting ring

PRODUCT DATA

Fluid Type:	Gas or Hydraulic
Sensing element:	Piston
Max rated inlet pressure:	690bar (10.000psi)
Pressure control ranges:	Hand-wheel – Up to 320bar (4640psi), Air actuated – Up to 300bar (4350psi)
CV options:	1,5
Port size / Connections:	1/2" NPT, 1/2" BSP, 3/4" NPT, 3/4" BSP, 1" NPT, 3/4" weld flange, 1" weld flange
Loading Options:	Hand-wheel or Air-actuated
Leakage:	Bubble tight at max WP (tested on Nitrogen)

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

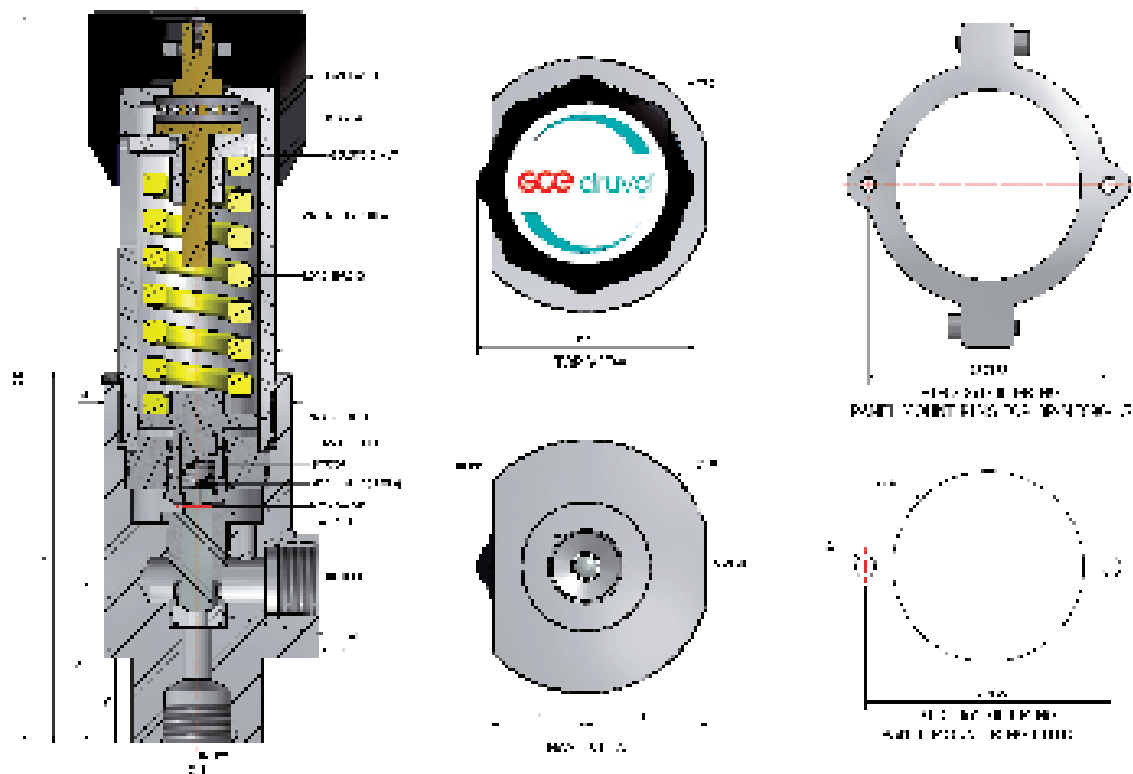
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve:	Liquid application – Ceramic
Gas application:	316SS
Seat:	Liquid application – Ceramic
Gas application:	PEEK
Valve spring:	302SS
Sensor & holder:	316SS
Hand-wheel:	Nylon
Spring rests:	316SS
O-ring seals:	NBR, Viton, EPDM
Adjusting screw:	Alu Bronze
Loading spring:	302SS
Lubricant:	Krytox GPL 205

ORDER CODE

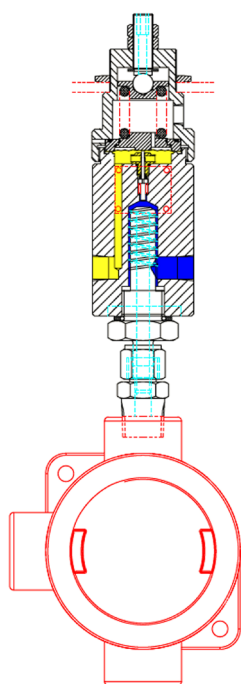
Basic Model	Cv Value	Body material	Outlet ranges	O Ring	Inlet/outlet connections	Porting configuration
BPMF690H	15	S	200S	V	04N	N
BPMF690G – Gas service	15 – 1,5	S – 316SS	50S – 0 - 50bar (0 - 725psi)	V – Viton	04N – 1/2" NPT	Please select your configuration in the quick reference overview
BPMF690H – Hydraulic service			100S – 0 - 100bar (0 - 1450psi)	N – NBR	04B – 1/2" BSP	
			200S – 0 - 200bar (0 - 2900psi)		06N – 3/4" NPT	
			320S – 0 - 320bar (0 - 4640psi)		06B – 3/4" BSP	
			300A – 0 - 300bar (0 - 4350psi) (Air-actuated)		08N – 1" NPT	

NOTE: Please contact us for any non-standard and any welded flange connection requests.

INSTALLATION DIMENSIONS:



XHS-300 DIAPHRAGM SENSED PRESSURE REGULATOR WITH SINGLE 100W HEATER



DESCRIPTION

An economical heated regulator available in 'side entry' or 'in-line' heat transfer options to maintain sample gases in their vapour state. The 'in-line' design maximizes the heat transfer area via a unique spiral machined heater sheath, which mixes the gas and ensures efficient heat transfer. The 'side entry' design can be used in applications where heat transfer is less critical, and where installations have height restrictions. Both options incorporate an efficient 100W heater cartridge, and are fully serviceable to remove carbon deposits and maintain maximum heat transfer.

APPLICATION

- > Natural Gas sample systems
- > Oxygen sample systems
- > Moisture sample systems

SPECIAL FEATURES

- > IECEx, ATEX certified to EEx d IIC T3
- > 100 W Heater cartridge
- > Strong Inconel X750 Convolute diaphragm
- > Easy to wire potted board with 115 V or 230 V supply
- > Fully serviceable design
- > Optional entry points for cable supply

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Diaphragm
Max rated inlet pressure:	PEEK seat – 300bar (4350psi) PCTFE seat – 210bar (3045psi)
Inlet ranges:	Up to 35bar (507psi)
Loading Options:	None
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	3,2kg

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

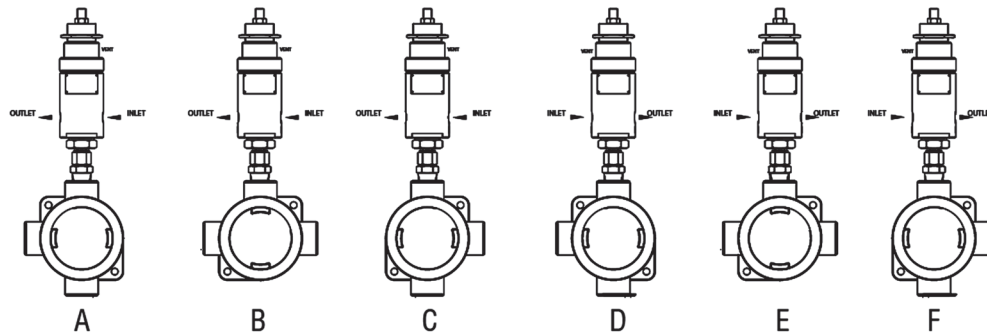
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve pin:	316SS
Soft seat cone:	PEEK seat – 300bar (4350psi), PCTFE seat – 210bar (3045psi)
Valve spring:	Inconel X750
Diaphragm:	Inconel X750
Diaphragm washer:	Brass
Cartridge holder:	316SS
O-ring seals:	Viton
Adjusting screw:	Alu Bronze
Electric enclosure:	Coated aluminum
Compression fitting	316SS

ORDER CODE

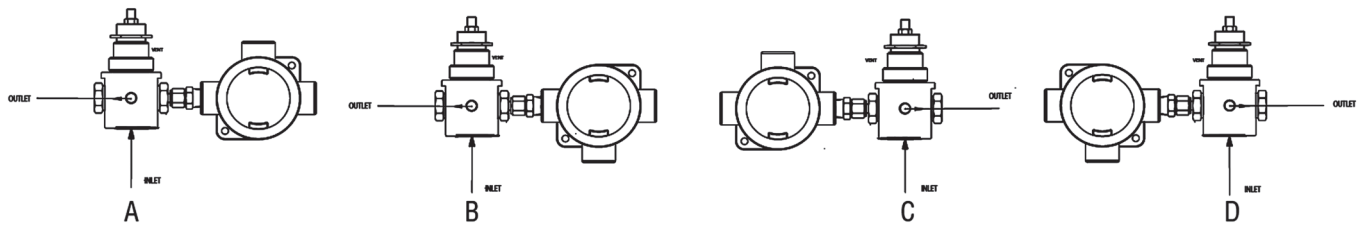
Basic Model	Configuration	Body material	Outlet pressure ranges	Seat	Port connections	Orientation	Porting configuration
XHS300	IL	S	10	K	1	B	N
XHS300	IL – In-line SE – side	S – 316SS	02 – 0 - 2bar (0 - 29psi) 04 – 0 - 4bar (0 - 60psi) 08 – 0 - 8bar (0 - 116psi) 10 – 0 - 10bar (0 - 145psi) 20 – 0 - 20bar (0 - 290psi) 35 – 0 - 35bar (0 - 507psi)	V – Viton N – NBR	02N – ¼" NPT 02B – ¼" BSP 03N – 3/8" NPT 04N – ½" NPT	Refer to the next page	Refer to office.

NOTE: Please contact us for any non-standard requests.

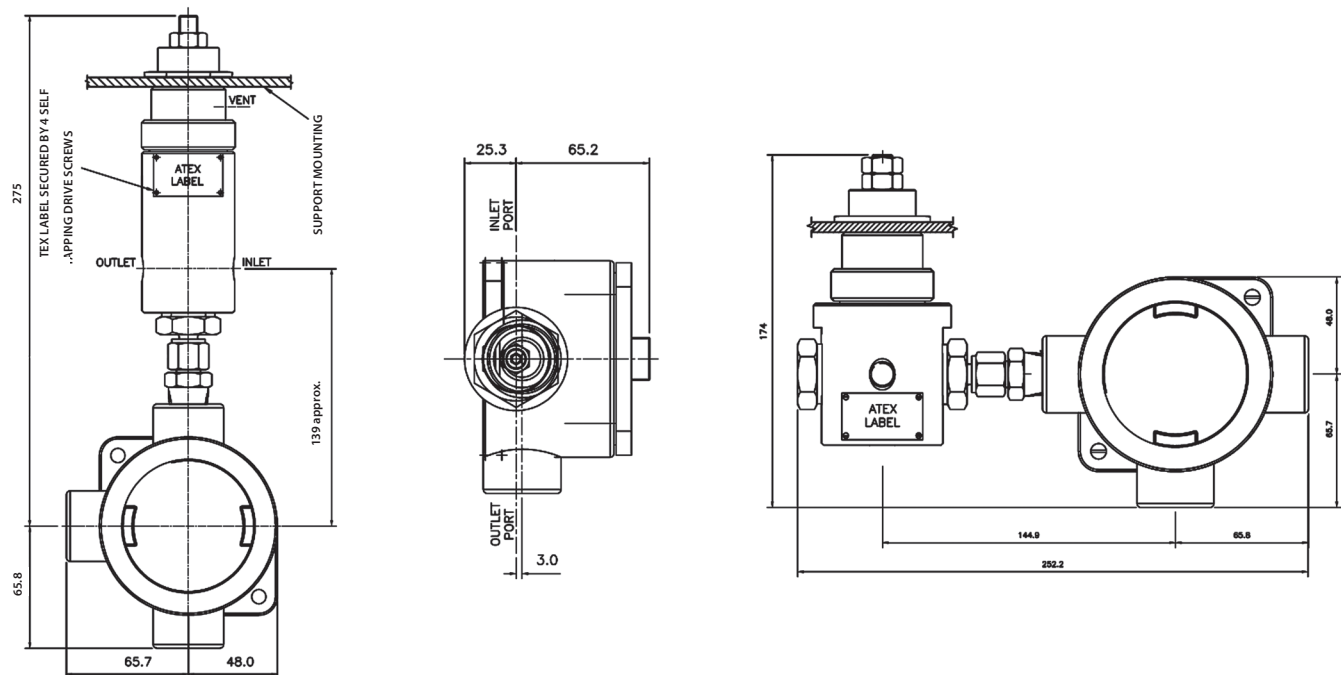
CONFIGURATION: IL OPTION



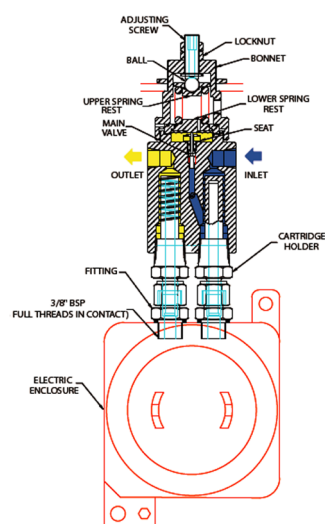
SE OPTION



INSTALLATION DIMENSIONS:



XHR-300/310 'LOW FLOW' ELECTRIC AND STEAM HEATED REGULATOR DIAPHRAGM SENSED



Assembly drawing for reference only.
Refer to office for specific detail.

DESCRIPTION

The XHR-300 is the standard seat option. The XHR-310 is the disk seat option. Certified to ATEX directive 94/9/EC, the XHR-300 helps to maintain saturated gases in their vapourised state due to its unique DUAL heating design. Two 100 W heater cartridges, or steam tubes, are inserted in spiral machined sheaths, which agitate the media to help with the heat transfer and analysis process. The propriety PCB is easy to wire and incorporates an adjustable potentiometer to adjust the temperature setting to the heaters.

APPLICATION

- > Natural Gas sample systems
- > Oxygen sample systems
- > Moisture sample systems

SPECIAL FEATURES

- > ATEX certified to EEx d IIC T3
- > Dual, independent, 100 W heaters for pre heat and re-heat of sample gas. Oxygen sample – Inconel X750 Diaphragm for extra strength
- > Large surface area for heat transfer
- > Easy to wire circuit board with 115 V or 230 V supply
- > Stylish Junction Box with 7 mm mounting supports.
- > Fully serviceable design
- > Optional entry points for cable supply

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Diaphragm
Max rated inlet pressure:	Up to 414bar (6000psi)
Inlet ranges:	XHR300 – PCTFE seat – 210bar (3045psi), XHR300 – PEEK seat – 300bar (4350psi) XHR310 – PCTFE seat – 300bar (4350psi), XHR310 – PEEK seat – 414bar (6000psi)
CV options:	0,06
Porting connections:	¼" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	4,1kg

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

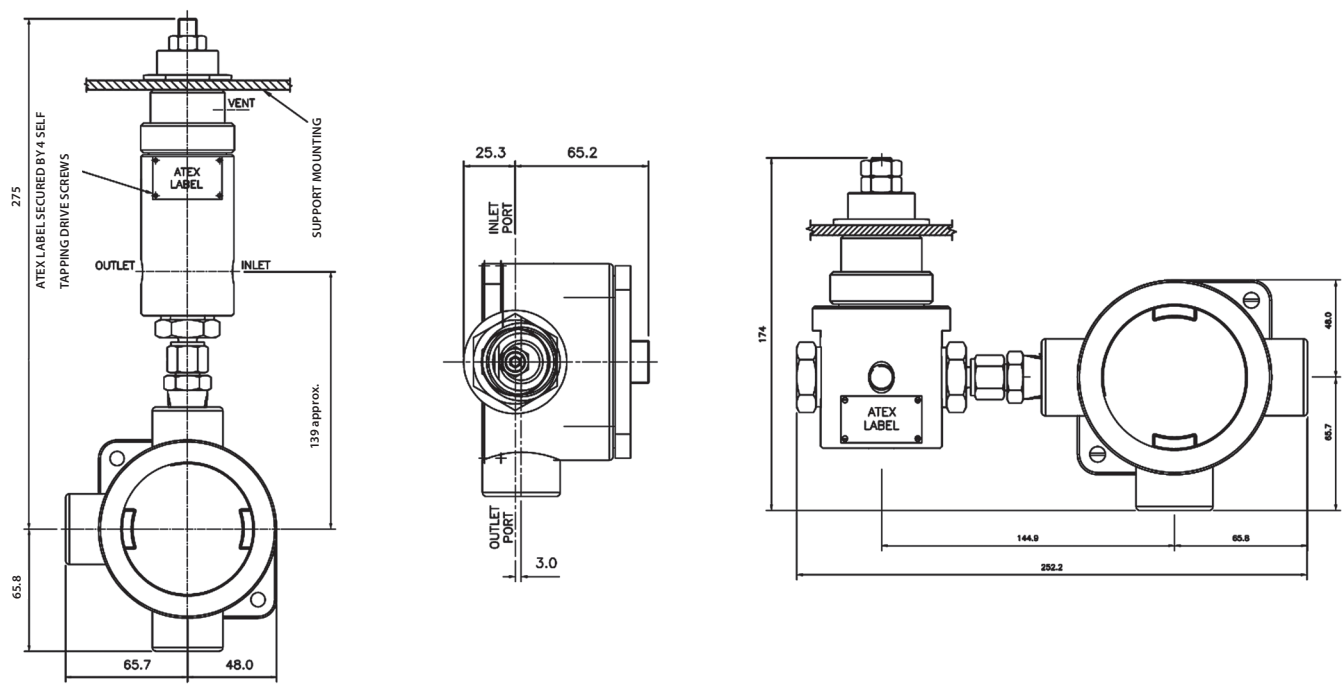
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve pin:	316SS
Soft seat cone:	PEEK, PCTFE
Valve spring:	Inconel X750
Diaphragm:	Inconel X750
Hand-wheel:	Nylon
Diaphragm washer:	Brass
Cartridge holder:	316SS
O-ring seals:	Viton
Adjusting screw:	Ali Bronze
Electric enclosure:	Coated aluminum
Compression fitting	316SS

ORDER CODE

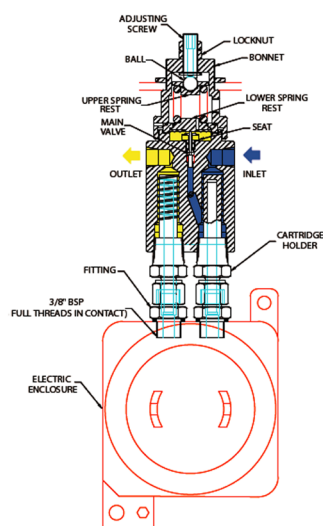
Basic Model	Configuration	Body material	Outlet pressure ranges	Seat	Heat supply	Power cable supply	Porting configuration
XHR300 (300bar inlet)		S	10			L	N
XHR310 (414bar inlet)		S – 316SS	02 – 0 - 2bar (0 - 29psi) 04 – 0 - 4bar (0 - 60psi) 08 – 0 - 8bar (0 - 116psi) 10 – 0 - 10bar (0 - 145psi) 20 – 0 - 20bar (0 - 290psi) 35 – 0 - 35bar (0 - 507psi)	K – PCTFE P – PEEK	1 – 115V 2 – 230V S – Steam	L – Left side of box R – Right side of box B – Base of box N – N/A /steam heated)	Please select your configuration in the quick reference overview.

NOTE: Please contact us for any non-standard requests.

INSTALLATION DIMENSIONS:



XHR-301/311 'LOW FLOW' ELECTRIC AND STEAM HEATED REGULATOR PISTON SENSED



Assembly drawing for reference only.
Refer to office for specific detail.

DESCRIPTION

The XHR-301 is the standard seat option. The XHR-311 is the disk seat option. Certified to ATEX directive 94/9/EC, the XHR-300 helps to maintain saturated gases in their vapourised state due to its unique DUAL heating design. Two 100 W heater cartridges, or steam tubes, are inserted in spiral machined sheaths, which agitate the media to help with the heat transfer and analysis process. The propriety PCB is easy to wire and incorporates an adjustable potentiometer to adjust the temperature setting to the heaters.

APPLICATION

- > Natural Gas sample systems
- > Oxygen sample systems
- > Moisture sample systems

SPECIAL FEATURES

- > ATEX certified to EEx d IIC T3
- > Dual, independent, 100 W heaters for pre heat and re-heat of sample gas. Oxygen sample – Inconel X750 Diaphragm for extra strength
- > Large surface area for heat transfer
- > Easy to wire circuit board with 115 V or 230 V supply
- > Stylish Junction Box with 7 mm mounting supports.
- > Fully serviceable design
- > Optional entry points for cable supply

PRODUCT DATA

Fluid Type:	Gas
Sensing element:	Piston
Max rated inlet pressure:	300bar or 414bar
Inlet ranges:	XHR301 – PCTFE seat – 210bar (3045psi), XHR301 – PEEK seat – 300bar (4350psi) XHR311 – PCTFE seat – 300bar (4350psi), XHR311 – PEEK seat – 414bar (6000psi)
CV options:	0,06
Porting connections:	¼" NPT
Loading Options:	Hand-wheel
Venting / non-venting:	Non-venting
Leakage:	Bubble tight at max WP (tested on Nitrogen)
Weight:	4,1kg

TECHNICAL DATA / MATERIALS OF CONSTRUCTION

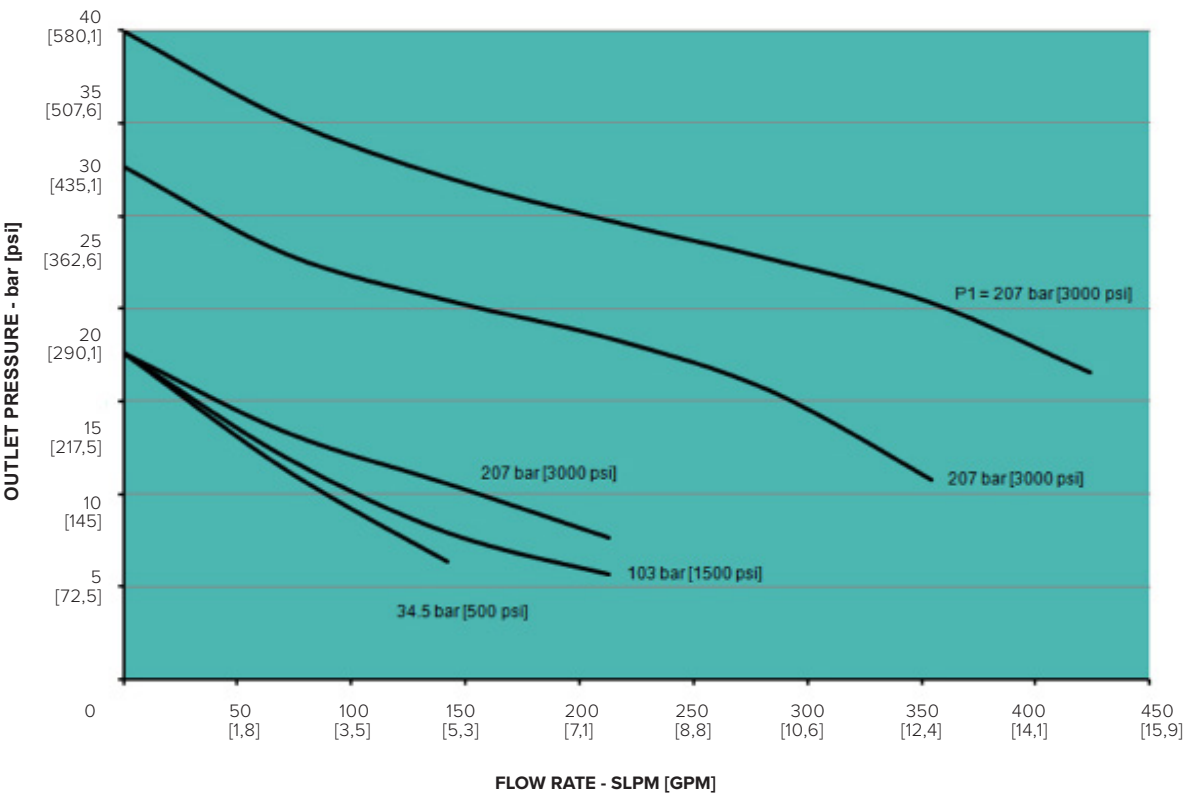
Regulator Part:	Material
Body & Bonnet:	316SS
Main valve pin:	316SS
Seat:	PEEK, PCTFE
Valve spring:	Inconel X750
Sensor & Holder:	316SS
Hand-wheel:	Nylon
Spring rests:	316SS
O-ring seals:	Viton, NBR, EPDM
Adjusting screw:	Ali Bronze
Loading spring:	316SS
Lubricante:	Krytox GPL 205
Electric enclosure:	Coated aluminum
Compression fitting	316SS

ORDER CODE

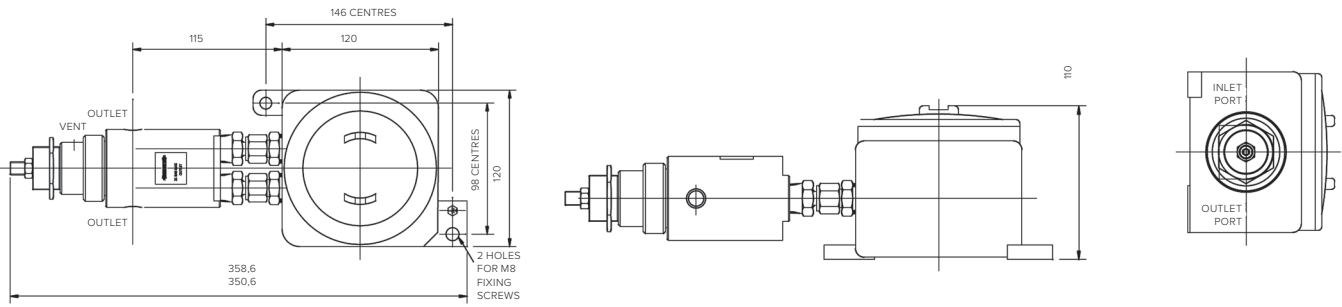
Basic Model	Configuration	Body material	Outlet pressue ranges	Seat	Heat supply	Power cable supply	Porting configuration
XHR301 (300bar inlet)		S	10	K	1	L	N
XHR311 (414bar inlet)		S – 316SS	02 – 0 - 2bar (0 – 29psi) 04 – 0 - 4bar (0 – 60psi) 08 – 0 - 8bar (0 – 116psi) 10 – 0 - 10bar (0 – 145psi) 20 – 0 - 20bar (0 – 290psi) 35 – 0 - 35bar (0 – 507psi)	K – PCTFE P – PEEK	1 – 115V 2 – 230V S – Steam	L – Left side of box R – Right side of box B – Base of box N – N/A /steam heated)	Please select your configuration in the quick reference overview.

NOTE: Please contact us for any non-standard requests.

PERFORMANCE CHARTS



INSTALLATION DIMENSIONS:



PANEL MOUNTING RING PT-C-024



PT-C-024

Panel Mounting Ring in 316SS
Suitable for '300 series' instrumentation regulator
M33 x 1mm

PT-C-024-001

Panel Mounting Ring in 316SS
Suitable for MINI-300 series
M34 x 2mm



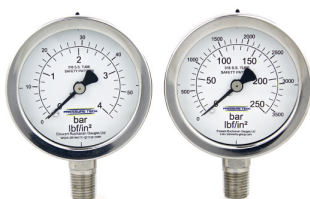
PT-C-061-005

Panel Mounting Ring
Suitable for bodies with 55mm Diameter
Used on HYD-691, LF-540, MF-301

PT-C-061-003

Panel Mounting Ring
Suitable for bodies with 65mm Diameter
Used on LF-690, MF-414, LF-550, MF-300

GAU1100-STAINLESS STEEL PRESSURE GAUGES



DESCRIPTION

The diameter of the pressure gauges Pressure tech supply is 63mm, they feature dual scale (bar / psi) dials, are full safety pattern with blowout back. The connection is on the base of the gauge and is available as standard in 1/4"NPT(M). Please contact the office for other types of connection.

The pressure ranges cover the requirements of our standard range of pressure regulators, should you need specific pressure ranges or have a special requirement, please contact us directly.

SPECIAL FEATURES

- > 63mm Dual Scale Gauge (bar/psi)
- > Stainless Steel
- > 1/4"NPTM Lower entry
- > Full Safety Pattern
- > Blowout back

ORDER CODE

Basic Model	Body material	Inlet/outlet connections	Outlet ranges	Modifications
GAU1100	63	02N	10	B
GAU1100	63 – 316SS	02N – 1/4" NPT	1BAR/PSI – 1bar (14,5psi) 2BAR/PSI – 2bar (30psi) 4BAR/PSI – 4bar (60psi) 6BAR/PSI – 6bar (90psi) 10BAR/PSI – 10bar (145psi) 16BAR/PSI – 16bar (232psi) 20BAR/PSI – 20bar (290psi) 25BAR/PSI – 25bar (360psi) 100BAR/PSI – 100bar (1450psi) 160BAR/PSI – 160bar (2320psi) 200BAR/PSI – 200bar (2900psi) 250BAR/PSI – 250bar (3600psi) 400BAR/PSI – 400bar (5800psi) 600BAR/PSI – 600bar (8700psi) 1000BAR/PSI – 1000bar (14.500psi)	02 – 02 Cleaned NACE – NACE

APPROVALS & CERTIFICATES

These are the standard approvals and certificates which are available.

For NACE-certified products, special prices apply for the regulator. Please contact us directly for further details.

CERTCONF	Certificate of Conformity
TESTCERT	Test Certificate
Certificate of Origin	Certificate of Origin (Chamber of Commerce)
ASTM G93 Level C Cert	Oxygen Cleaning Certificate
MATCERT	3.1 Material Certification (Body material only)
MATCERT - GAUGES	3.1 Material Certification for Gauges
MATCERT - SPECIFIC	3.1 Material Certification (Order specific)
MATCERT - WETTED	3.1 Material Certification for all Wetted Components
SMDRL	Supplier Master Requirement Document List
	ATEX Statement
	Conflict Minerals
	Customer specific statements
	PED Statement
	Product Statements
	REACH Compliance
	RoHS Statement

If there are specific wishes you have, please contact us directly.

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