PRESSURE REGULATORS

072
082
092
DR60
DRA 100
DRA 700
077
2000
DR70

CONTENTS

Leak Rate Certification to 2×10^{-8} atm cc/sec Helium available

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072 SERIES

GAS and LIQUID PRESSURE REDUCING REGULATOR

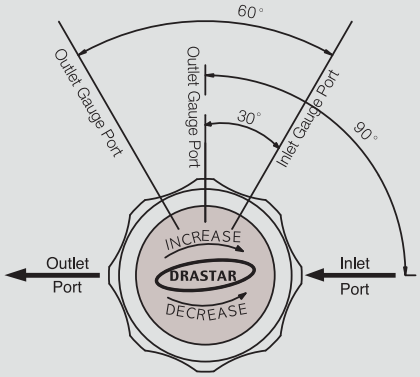
072 SERIES

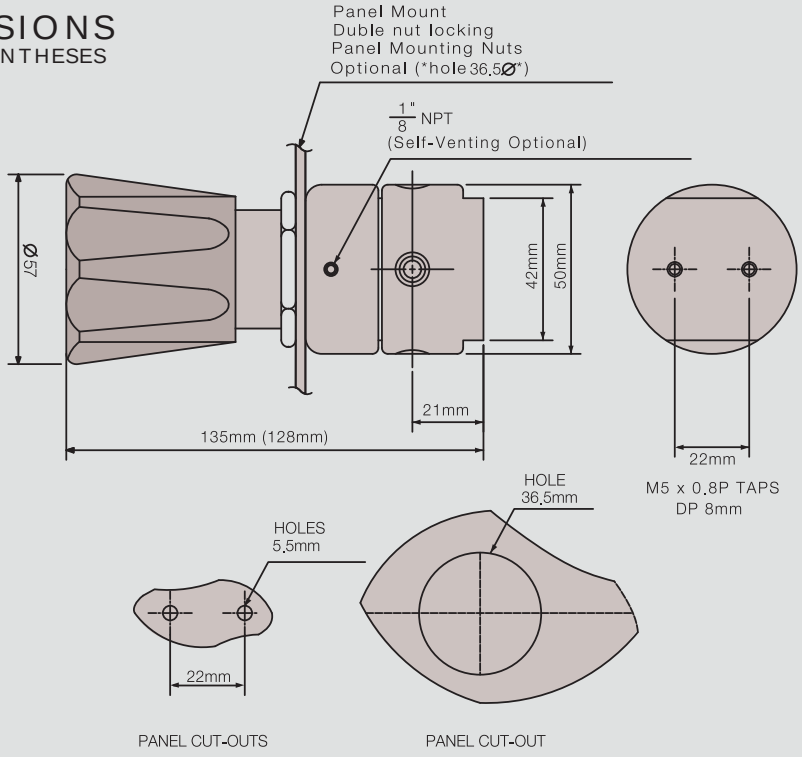
072 Series gas regulators are specially designed to regulate the high-corrosive gas and liquid and suitable for semi-conductor equipment production line where the special gases are used and liquid line. As the product's body and all internal parts are made of stainless steel 316L 072S Series, they can be also used for ultra-pure six-nine(99.9999) gases. 3-ports or 4-ports 1/4"FNPT can be connected to this 072S Series. DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the self-changing of pre-set value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009-0012957).

INSTALLATION DIMENSIONS

METRIC EQUIVALENTS ARE IN PARENTHESES

■ GAUGE PORT OPTIONS





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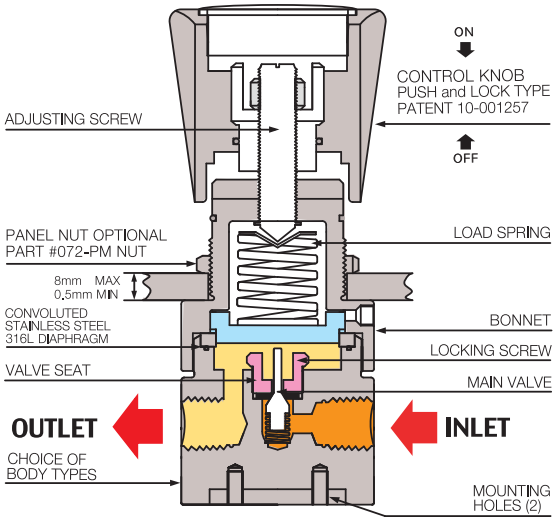

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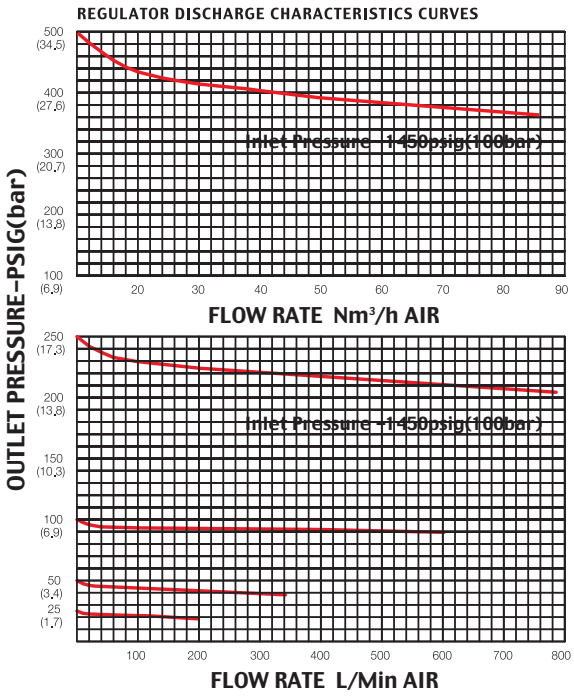

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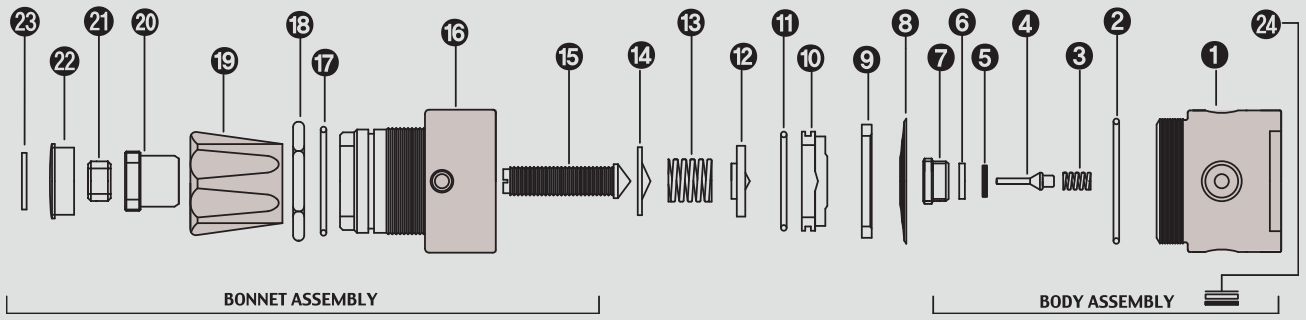
072 SERIES PART LIST



STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	072-02-01	02-01 Stainless Steel 316L body / 02-02 Brass body
02	Boby O-Ring	072-02-00	All Model Same
03	Valve Spring	072-04-01	04-01 STS 316L / 04-03 Hastelloy-C-22 / 04-04 Monel
04	Main Valve	072-06-01	06-01 STS 316L / 06-03 Hastelloy-C-22 / 06-04 Monel
05	Valve Seat	072-10-01	10-01 PFA / 10-05 Vespel / 10-06 Peek
06	Valve Seat Cartridge	072-08-01	08-01 Stainless Steel 316L / 08-02 Brass
07	Locking Screw	072-12-01	All Model Same
08	Diaphragm	072-16-01	16-01 STS 316L / 16-02 Hastelloy C-22
09	Diaphragm Plate	072-22-02	All Model Same
10	Back-up Plate	072-26-03	All Model Same
11	Back-up Plate O-Ring	072-28-01	All Model Same
12	Spring Plate	072-30-01	All Model Same
13	Load Spring	072-38-01	11-01 25psi / 11-02 50psi / 11-03 100psi / 11-05 250psi / 11-07 500psi
14	Pivot	072-40-01	All Model Same
15	Adjusting Screw	072-42-01	All Model Same
16	Bonnet	072-44-02	44-01 Stainless steel 316L / 44-02 Brass
17	Push & Lock O-Ring	072-46-01	All Model Same
18	Panel mount Nut	072-48-01	All Model Same
19	Control Knob	072-50-01	50-01 ABS / 50-04 Aluminum Control knob
20	Push & Lock Handle nut	072-52-01	All Model Same
21	Locking Nut	072-54-01	All Model Same
22	Name Cap	072-56-01	56-01 ABS
23	Name Cap Plate	072-58-01	58-01 25psi/58-02 50psi/58-03 100psi/58-04 200psi/58-06 350psi/58-07 500psi
24	Filter Assembly	072-60-01	All Model Same

SPECIFICATIONS

Ports	1/4"NPT type 072X-0000L-1S, 3-ports 072X-0000C-1S, 4-ports
Leak Rate Certification	to 2x10-8 atm cc/sec Helium available.
Body Materials	072S-0000-1S / Stainless steel 316L 072B-0000-1S / Brass
Bonnet Material	Nickel Plated Brass / Stainless steel 316L
Diaphragm	Stainless steel 316L
Main Valve	Stainless steel 316L
Valve Spring	Stainless steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.. Optional)
Inlet Pressure Ranges	072X-0000-1S, 3,500psig (238bar) 072X-0000-1S-5, 500psig (35bar)
Outlet Pressure Ranges	25(1.7bar), 50(3.4bar), 100(7bar), 250(17bar), 500psig(35bar)
Self-Venting	072X-0000-1S-V, Optional
Operating Temperature	-40°C - +70°C(-40°F - +160°F) (standard) 072x-0000-1S-H1, +120°C (Optional) 072x-0000-1S-H2, +250°C (Optional)
Flow Capacity	Cv=0.06 (Cv=0.2 etc.. Optional)
Standard Optional	CGA, Inlet and Outlet Gauges, etc..

FEATURES

- Precision control of 1/4"NPT type Regulator
- Suitable for the research labs, industrial control
- Inlet 3500 or 500 psig
- Outlet 25psig(1.7bar), 50psig(3.5bar), 100psig(7bar), 250psig(17bar),500psig(35bar)
- Panel mounting nut option
- W072S-0000x-1O / W MODEL IS ONLY TYPE for LIQUID or WATER

ORDERING INFORMATION

W 072 S - 0025 L - 1S - H - 5 - V - H1

W MODEL IS ONLY TYPE FOR LIQUID or WATER

BASIC SERIES NUMBER
Standard Inlet Pressure
3500PSIG (238 bar)

BODY MATERIAL
B = Brass
S = Stainless Steel 316L

OUTLET PRESSURE RANGE
0025 = 1-25PSIG(.1~1.7 bar)
0050 = 1-50PSIG(.1~3.5 bar)
0100 = 1-100PSIG(.1~ 7 bar)
0250 = 2-250PSIG(.1~17 bar)
0500 = 3-500PSIG(.2~35 bar)

PORT TYPE
L = 3-ports
C = 4-ports

HIGH TEMPERATURE OPTION
H1 = 120°C H2 = 250°C

V = Self-Venting (Optional)

INLET PRESSURE OPTION
5 = 500psig (35 bar)

DIAPHRAGM MATERIAL
H=Hastelloy-c(Optional)

FLOW CAPACITY
S = Cv=0.06 (Standard)
0 = Cv=0.2, etc...

INLET AND OUTLET PORTS SIZE
1 = 1/4" NPT

Recommendations
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25%~75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

082 SERIES

HIGH-PRESSURE REGULATOR

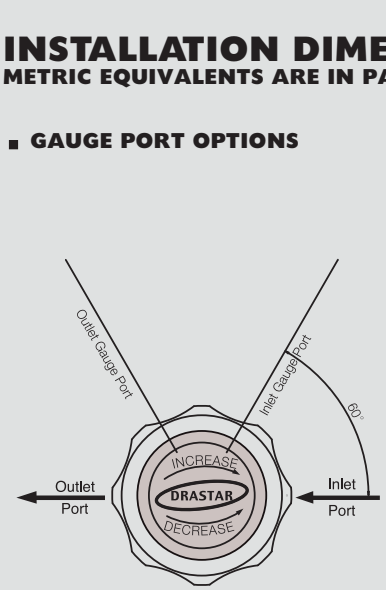
082 SERIES

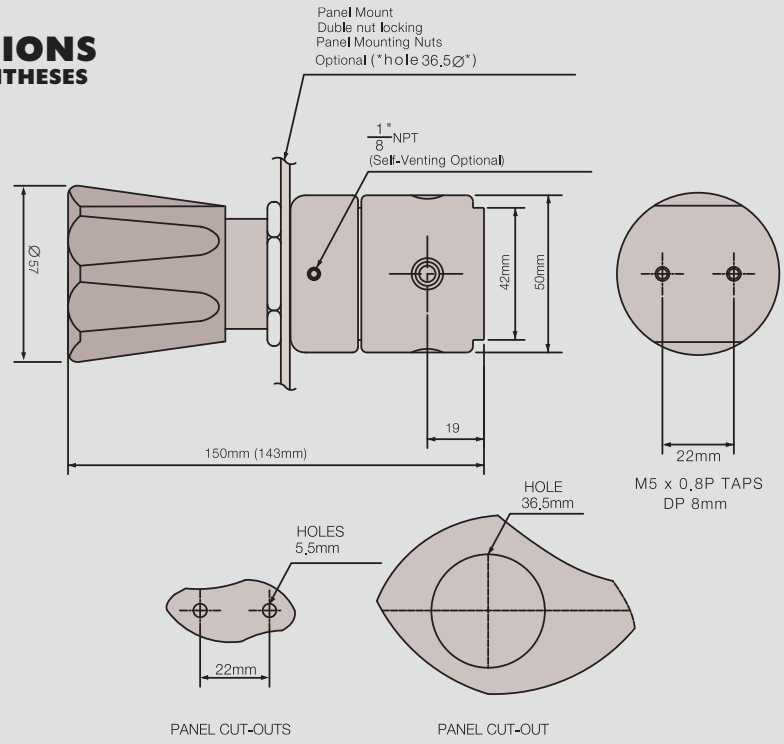
082 Series gas regulators are specially designed to regulate the high pressure gases safely. As the product's body and all internal parts are made of stainless steel 316L(082S Series) that is strong for corrosiveness and liquid and brass (082B Series), they can be also used for ultra- pure six-nine(99.9999) gases. As these models can be connected by 4-ports 1/4″FNPT, they are suitable for semi-conductor equipment production line and ultra-precision plumbing line. max. inlet pressure is 6000 psig(420 bar) and outlet pressure, 1000 psi(70 bar), 2000 psi(140 bar), and 3000 psi(210 bar).DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the self-changing of pre-set value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009-0012957).

INSTALLATION DIMENSIONS

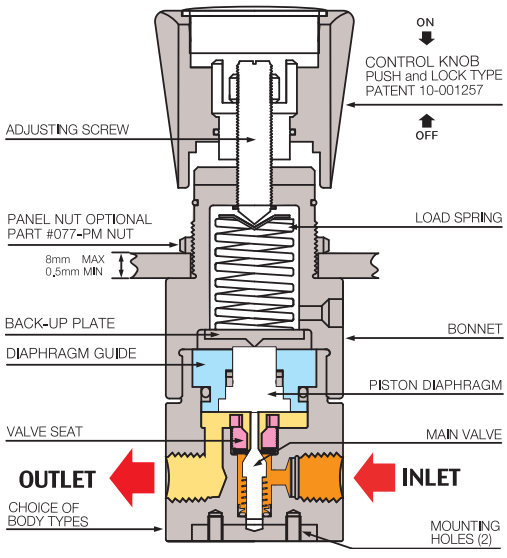
METRIC EQUIVALENTS ARE IN PARENTHESES

■ **GAUGE PORT OPTIONS**



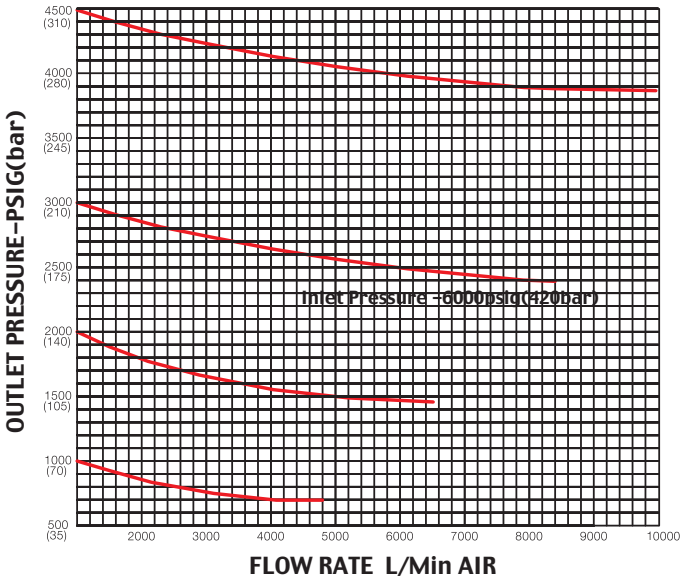


FUNCTIONAL SCHEMATIC



FLOW CHART

REGULATOR DISCHARGE CHARACTERISTICS CURVES



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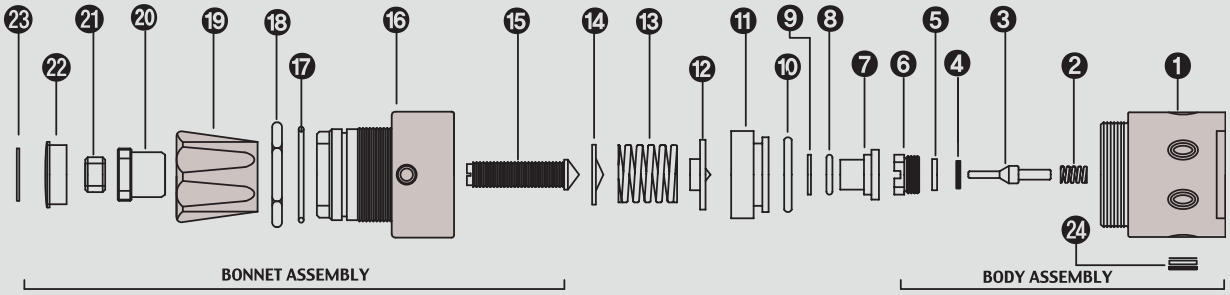
082 SERIES PART LIST



STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	082-02-01	02-01 Stainless Steel 316L / 02-02 Brass Body / 02-03 Monel
02	Valve Spring	082-04-01	04-01 STS 316L / 04-03 Hastelloy C-22 / 04-04 Monel
03	Main Valve	082-06-01	06-01 STS 316L / 06-03 Hastelloy C-275 / 04-04 Monel
04	Valve Seat	082-10-01	10-01 PFA / 10-05 Vespel / 10-06 Peek
05	Valve Seat Cartridge	082-08-01	All Model Same
06	Locking Screw	082-12-01	All Model Same
07	Piston Diaphragm	082-18-01	All Model Same
08	Piston Diaphragm O-ring	082-18-00	All Model Same
09	Diaphragm Teflon Ring	082-18-00	All Model Same
10	Diaphragm Guide O-ring	082-18-00	All Model Same
11	Piston Diaphragm Guide	082-20-01	20-01 Series Stainless steel 316L / 20-02 Brass
12	Spring Plate	082-30-01	All Model Same
13	Load Spring	082-38-01	38-08 1000psi / 38-09 2000psi / 38-10 3000psi / 38-11 4500psi
14	Pivot	082-40-01	All Model Same
15	Adijusting Screw	082-42-01	All Model Same
16	Bonnet	082-44-02	44-02 Brass / 44-01 Stainless steel 304 Bonnet Optional
17	Push & Lock O-Ring	082-46-01	All Model Same
18	Panel mount Nut	082-48-01	All Model Same
19	Control Knob	082-50-01	50-01 ABS / 50-04 Aluminum Control knob Optional)
20	Push & Lock Handle nut	082-52-01	All Model Same
21	Locking Nut	082-54-01	All Model Same
22	Name Cap	082-56-01	56-01 ABS
23	Name Cap Plate	082-58-07	58-08 1000psi / 58-09 2000psi / 58-10 3000psi / 58-11 4500psi
24	Filter Assembly	082-60-02	All Model Same

SPECIFICATIONS

Ports	1/4 4-ports NPT type
Leak Rate Certification	to 2x10-8 atm cc/sec Helium available.
Body Materials	082S-0000-1S / Stainless steel 316L 082B-0000-1S / Brass
Bonnet Materia	Nickel Plated Forged Brass / Stainless steel 316L
Main Valve	Stainless steel 316L
Valve Spring	Stainless steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.. Optional)
Inlet Pressure Range	6,000psig(420bar)
Outlet Pressure Ranges	1000(70bar), 2000(140bar), 3000psig(210bar), 4500psig(310bar)
Self-Venting	082X-0000-1S-V, Optional
Operating Temperature	-40°C - +70°C(-40°F - +160°F) (standard) 082S-0000-1S-H1, +120°C (Optional) 082S-0000-1S-H2, +250°C (Optional)
Flow Capacity	Cv=0.06 (Cv=0.2 etc.. Optional)
Standard Optional	CGA, Inlet and Outlet Gauges, etc..

FEATURES

- Piston- Diaphragm Type Regulator of 1/4"NPT Type
- Suitable for the High-Pressure Regulator
- Inlet 6000 psig (420bar)
- Outlet 1000 (70bar), 2000 (140bar), 3000 (210bar) psig
- Panel mounting nut option

ORDERING INFORMATION

082 S - 1000 - 1S - H - V - H1

BASIC SERIES NUMBER
Standard Inlet Pressure
6000PSIG (420 bar) 4-ports

BODY MATERIAL
B = Brass
S = Stainless Steel 316L

OUTLET PRESSURE RANGE
1000 = 10-1000PSIG (7~70 bar)
2000 = 20-2000PSIG (15~140 bar)
3000 = 30-3000PSIG (20~210 bar)
4500 = 40-4500PSIG (30-310 bar)

HIGH TEMPERATURE OPTION
H1 = 120°C, H2 = 250°C

V = Self-Venting (Optional)

DIAPHRAGM MATERIAL
H=Hastelloy-c(Optional)

FLOW CAPACITY
S = Cv=0.06 (Standard)
0 = Cv=0.2 etc...

INLET AND OUTLET PORTS SIZE
1 = 1/4" NPT

Recommendations
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25%–75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

092 SERIES

HIGH- FLOW REDUCING REGULATOR

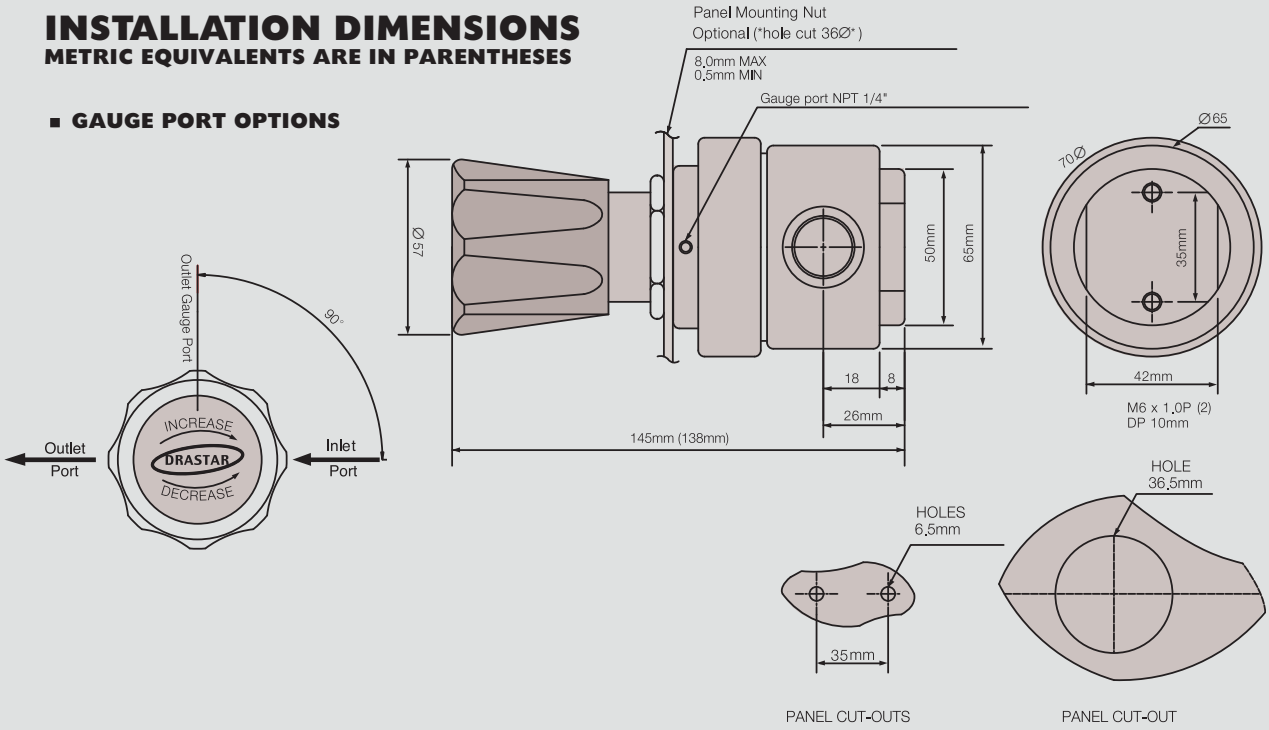
092 SERIES

092 Series gas and liquid regulators are specially designed to regulate the mass-flow of gases and liquid such as semi- conductor equipment production line and ultra-precision plumbing line with 1/2″FNPT, etc. As the product's body and all internal parts are made of stainless steel 316L that is strong for corrosiveness and liquid, they can be used for ultra-pure six-nine (99.9999) gases, corrosive gases, and liquids. Accordingly, special regard was paid to utmost safety and easy operation of the regulators.DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the self-changing of pre-set value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009-0012957).

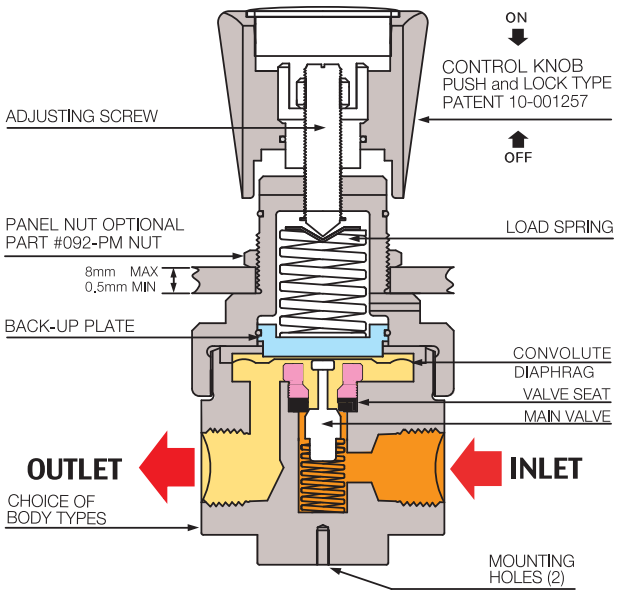
INSTALLATION DIMENSIONS

METRIC EQUIVALENTS ARE IN PARENTHESES

■ **GAUGE PORT OPTIONS**



FUNCTIONAL SCHEMATIC



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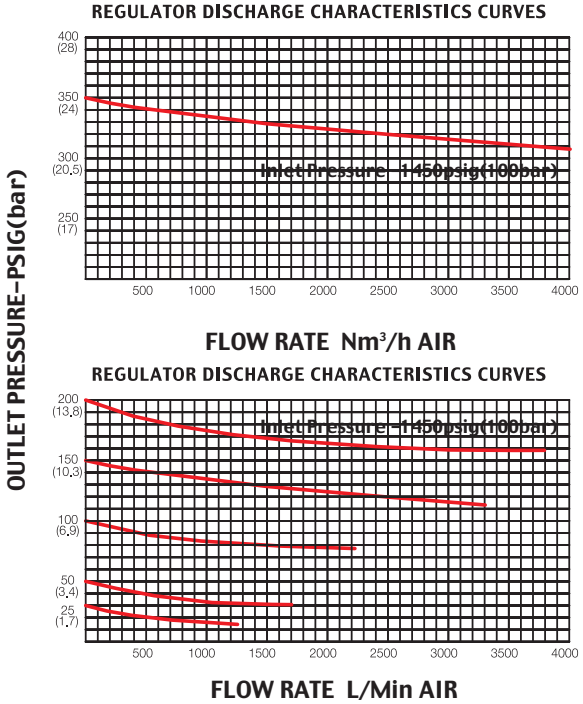

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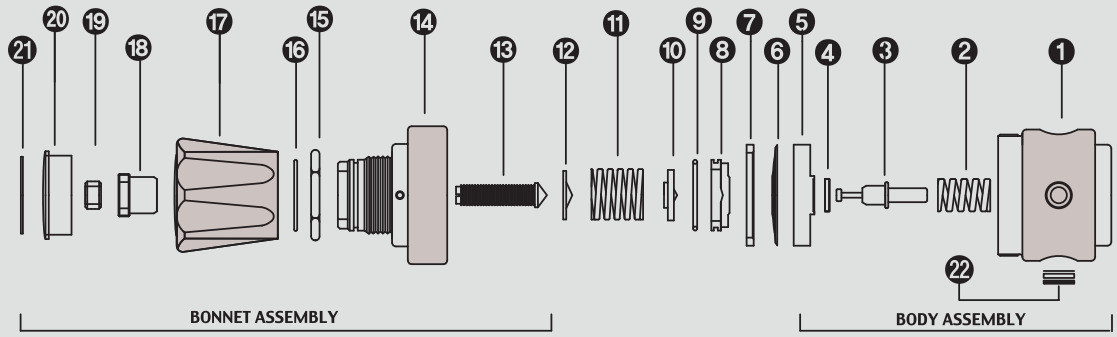
092 SERIES PART LIST



STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	092-02-01	02-01 Stainless steel 316L
02	Valve spring	092-04-01	All Model Same
03	Main Valve	092-06-01	All Model Same
04	Valve Seat	092-10-01	All Model Same
05	Locking Plate	092-14-01	All Model Same
06	Diaphragm	092-16-01	16-01 STS 316L / 16-02 Hastelloy C-22
07	Diaphragm Plate	092-22-01	All Model Same
08	Back-up Plate	092-26-01	All Model Same
09	Back-up Plate O-ring	092-26-00	All Model Same
10	Spring Plate	092-30-01	All Model Same
11	Load Spring	092-38-01	38-01 25psi/38-02 50psi/38-03 100psi/38-04 200psi/38-06 350psi/38-07 500psi
12	Pivot	092-40-01	All Model Same
13	Adjusting Screw	092-42-01	All Model Same
14	Bonnet	092-44-02	44-01 STS 316L / 44-02 Brass
15	Panel mount Nut	092-48-01	All Model Same
16	Push & Lock O-Ring	092-46-01	All Model Same
17	Control Knob	092-50-01	50-01 ABS / 50-04 Aluminum Control knob
18	Push & Lock Handle nut	092-52-01	All Model Same
19	Locking Nut	092-54-01	All Model Same
20	Name Cap	092-56-01	All Model Same
21	Name Cap Plate	092-58-01	58-01 25psi/58-02 50psi/58-03 100psi/58-04 200psi/58-06 350psi/58-07 500psi
22	Filter Assembly	092-60-03	All Model Same

SPECIFICATIONS

Ports	1/2 3-ports NPT type
Leak Rate Certification	to 2x10-8 atm cc/sec Helium available.
Body Material	Stainless steel 316L
Bonnet Material	Nickel Plated Forged Brass/ stainless steel 316L
Diaphragm	Stainless steel 316L
Main Valve	Stainless steel 316L
Valve Spring	Stainless steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.. Optional)
Inlet Pressure Ranges	092-0000-1S, 3,500psig (238bar) 092-0000-1S-5, 500psig (35bar)
Outlet Pressure Ranges	25(1.7bar), 50(3.5bar), 100(7bar), 200(14bar), 350psig(24bar)
Self-Venting	092-0000-1S-V Optional
Operating Temperature	-40°C - +70°C(-40°F - +160°F) (standard) 092-0000-1S-H1, +120°C (Optional) 092-0000-1S-H2, +250°C (Optional)
Flow Capacity	Cv=1.0 (Cv=1.2 Optional)

FEATURES

- Suitable for the High-Flow Regulator of 1/2"NPT Type
- Body and all internal parts are Stainless steel 316L
- Inlet 3500psig(241bar) or 500psi(35bar)
- Outlet 25psig(1.7bar), 50psig(3.5bar), 100psig(7bar), 200psig(14bar), 350psig(24bar)
- Panel mounting nut option
- W092-0000-1S / W MODEL IS ONLY TYPE for LIQUID or WATER

ORDERING INFORMATION

W 092 - 0025 - 1 S - H - 5 - V - H1

W MODEL IS ONLY TYPE FOR LIQUID or WATER

BASIC SERIES NUMBER
Standard Inlet Pressure
3500PSIG (238 bar)
Standard Material
Stainless Steel 316L
3-Ports NPT 1/2"

OUTLET PRESSURE RANGES
0025 = 1-25PSIG (.1~1.7 bar)
0050 = 1-50PSIG (.1~3.5 bar)
0100 = 1-100PSIG (.1~ 7 bar)
0200 = 2-200PSIG (.1~14 bar)
0350 = 3-350PSIG (.1~24 bar)
0500 = 4-500PSIG (.1~34bar)
* 500PSIG : W Model Only

HIGH TEMPERATURE OPTION
H1 = 120°C, H2 = 250°C

V = Self-Venting (Optional)

INLET PRESSURE OPTION
5 = 500psig (35 bar)

DIAPHRAGM MATERIAL
H=Hastelloy-c(Optional)

FLOW CAPACITY
S = Cv=1.0 (Standard)

INLET AND OUTLET PORTS
1 = 1/2" NPT

Recommendations to Use
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25%–75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

DR60 SERIES

GENERAL GAS REGULATOR

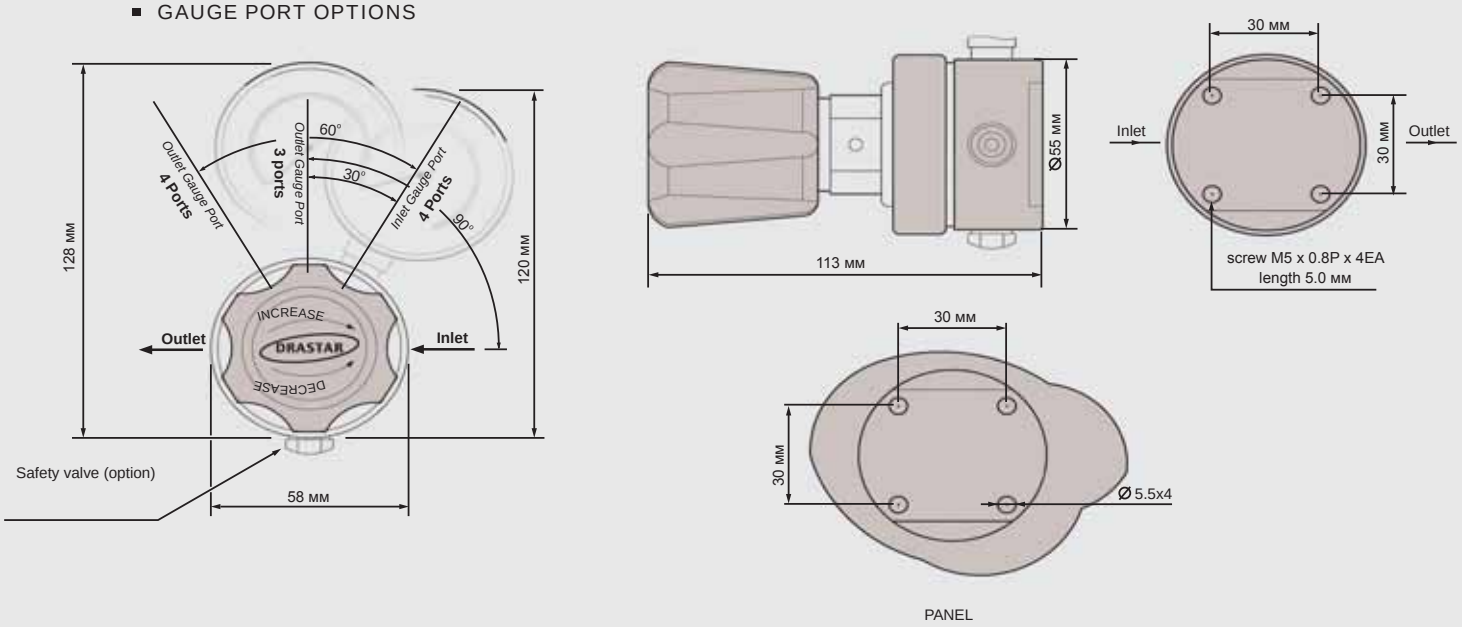
DR60 SERIES

DR60 Series are the industrial gas regulators,applicable to oxygen and non-corrosive gases. Available for general pipeworks and cylinder equipments. They are designed and produced for the customers to use them easily and expediently with ultimate safety. Special rubber is used for its internal diaphragm and inlet and outlet gauge are assembled as standard.

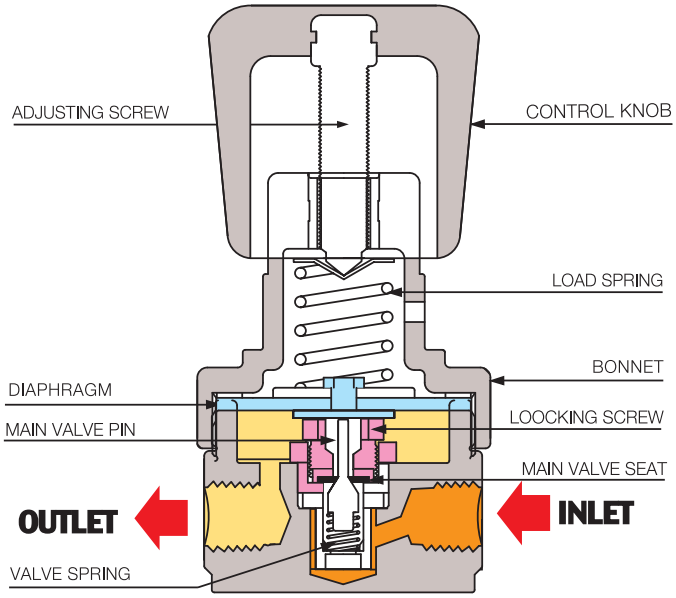
INSTALLATION DIMENSIONS

METRIC EQUIVALENTS ARE IN PARENTHESES

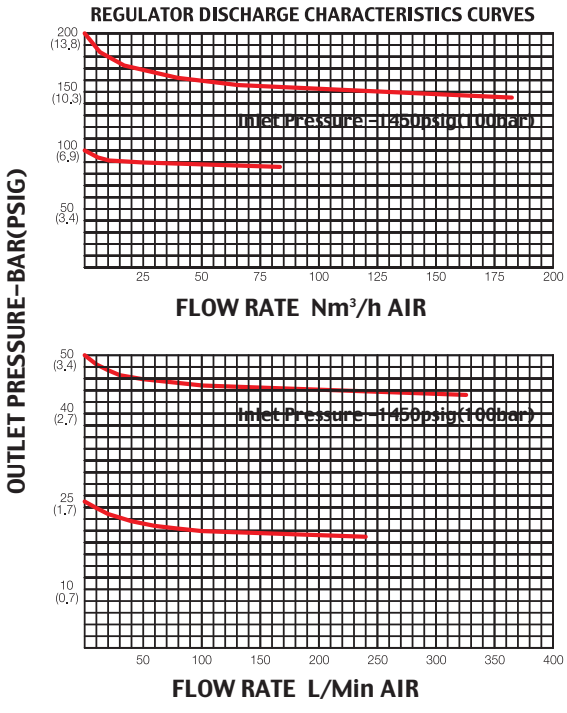
- GAUGE PORT OPTIONS



FUNCTIONAL SCHEMATIC



FLOW CHART



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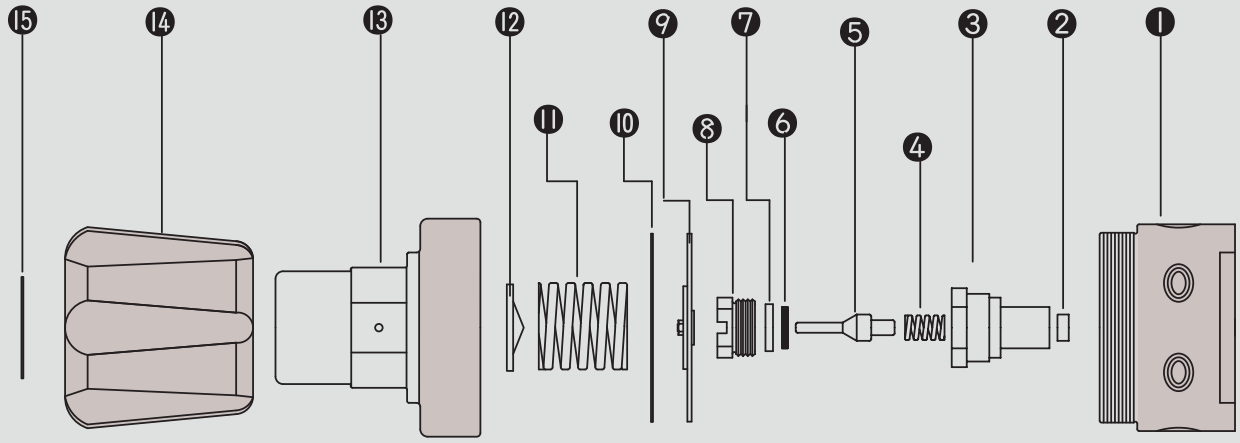
DR 60 SERIES PART LIST



STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	DR60-02-02	02-02 Brass
02	Cartridge Filter	DR60-62-01	All Model Same
03	Cartridge	DR60-66-01	All Model Same
04	ValveSpring	DR60-04-02	04-01 STS 304
05	Main Valve	DR60-06-01	06-01 STS 316L
06	Valve Seat	DR60-10-01	10-01 PFA
07	Valve Seat Cartridge	DR60-08-01	All Model Same
08	Loocking Screw	DR60-12-03	All Model Same
09	Diaphragm Assembly	DR60-16-04	16-04 NBR / 16-05 EPDM
10	Gasket	DR60-16-00	All Model Same
11	Load Spring	DR60-38-01	38-01 25psi / 38-02 50psi / 38-03 100psi / 38-04 200psi
12	Pivot	DR60-40-01	All Model Same
13	Bonnet	DR60-44-03	All Model Same
14	Control Knob	DR60-50-03	All Model Same
15	Name Plate	DR60-56-00	All Model Same

SPECIFICATIONS

Ports	1/4 NPT type DR60-A000-1 3-ports DR60-A000-2 4-ports
Body Material	Nickel Plated Forged Brass
Bonnet Material	Zinc(Zn) Casting Nickel Plated
Diaphragm	Particular of Synthetic Rubber
Valve Seat	Teflon
Valve Spring	Stainless steel
Inlet Pressure Ranges	DR60-A000-1, 3500psig (238bar) DR60-B000-1, 500psig (35bar)
Outlet Pressure Ranges	25(1.7bar), 50(3.4bar), 100(7bar), 200psig(14bar)
Flow Cappacity	CV=0.2 (standard)
Operating Temperature	-40°C - +70°C(-40°F - +160°F) (standard)
Standard Optional	CGA, Inlet and Outlet Gauges, etc..

ORDERING INFORMATION

DR60 - A 025 - 1

BASIC SERIES NUMBER

MAX. INLET PRESSURE
A = 3,500psig (238 bar)
B = 500psig (35 bar)

PORT SIZE 1/4" NPT TYPE
1 = 3-ports
2 = 4-ports

OUTLET PRESSURE RANGES
025 = 0-25PSIG (0~1.7 bar)
050 = 0-50PSIG (0~3.5 bar)
100 = 0-100PSIG (0~7 bar)
200 = 0-200PSIG (0~14 bar)

Recommendations to Use
Each regulator is designed and manufactured taking into full consideration of safety and easy operation. However, for doubled safety and use of the regulators most effectively, it is strongly recommended to use each regulator within the range of 25%–75% of its working pressure. It is also recommended to use within this range for most smooth operation and extension of products life.

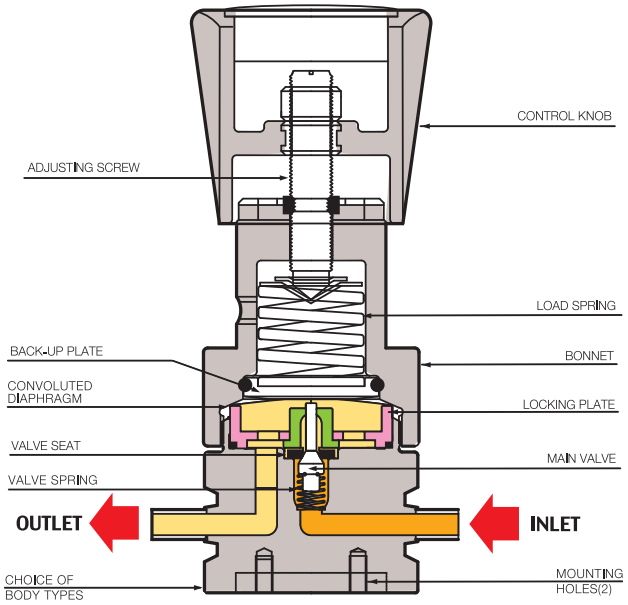
DRA100 SERIES

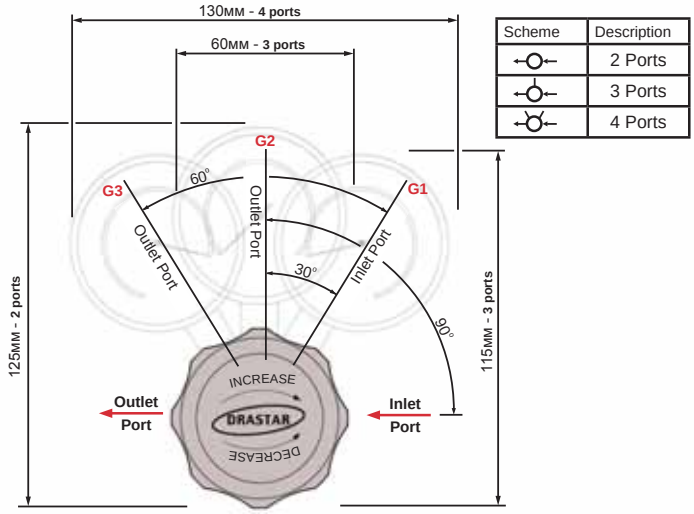
PRESSURE REDUCING REGULATOR FOR ULTRAPURE MEDIA

DRA100 SERI\ES

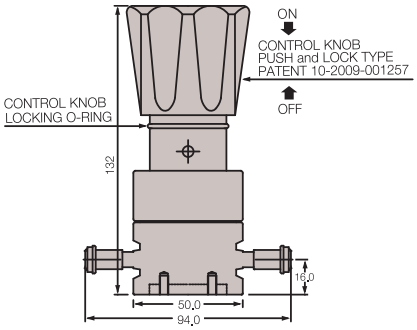
DRA 100 Series is the pressure reducing regulator designed to use at the special manufacturing line of ultrahigh pure semi-conductors, bulk gas lines, and other facility lines. In order to use at the semi-conductor hook-up line, etc., regulator's internal surface is treated to the level of E.P. 10Ra, 5Ra under B. A. grade. A special locking-plate system which DRASTAR has developed and applied for patent (patent no. 10-0753280) is used for the regulator. All the process assembly, welding, testing and washing of this DRA 100 series is carried out and thoroughly managed in the 100-class and 10-class clean room. DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the self-changing of preset value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009-0012957).

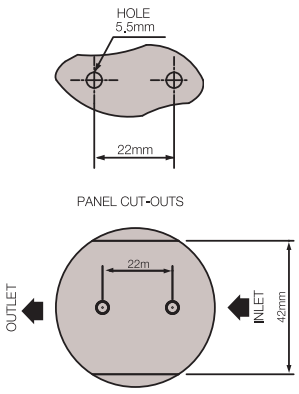
FUNCTIONAL SCHEMATIC



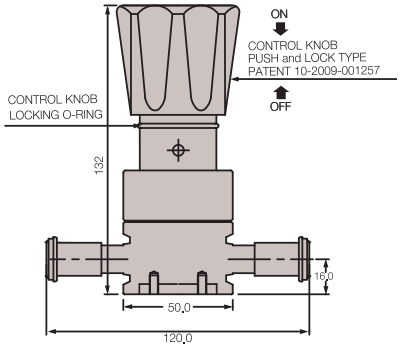


DRA100 Series 1/4″

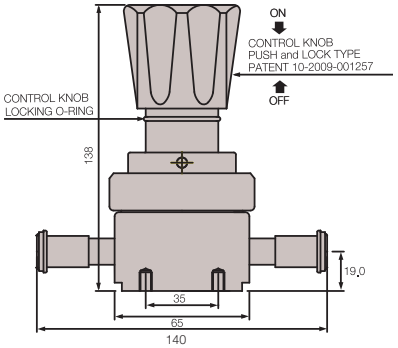


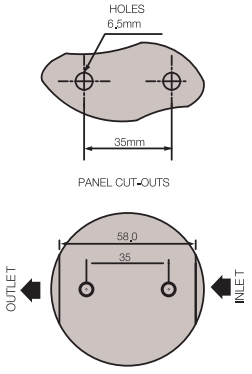


DRA100 Series 3/8″

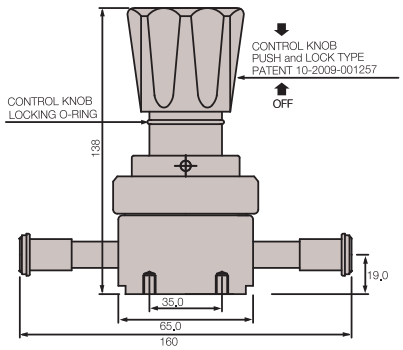


DRA100 Series 1/2″





DRA100 Series 3/4″



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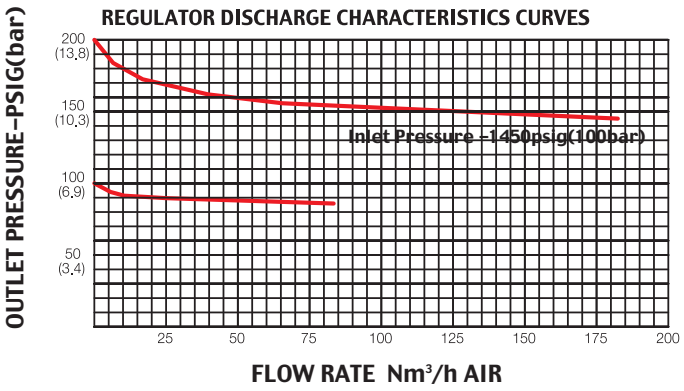
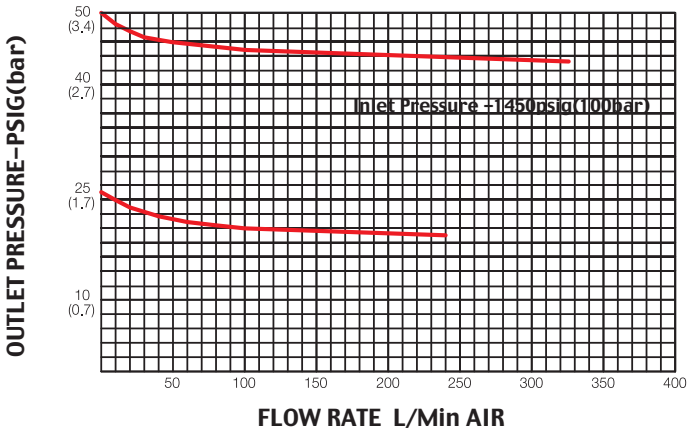
FLOW CHART





FEATURES

- VCR Type Regulator
- available for semiconductor applications
- Internal surfaces B. A. grade to E. P. 10 Ra, 5 Ra
- All performed in class 100 and class 10 clean-rooms
- Threadless type
- Locking-Plate Seal system(Patent No : 10-0753280)

ORDERING INFORMATION

DRA100 - A 025 S - L P O - 4MS - G0S

BASIC SERIES

BODY MATERIAL / **FINISH**
- A = Bright Annealed ---------- B.A.
- B = STS 316L Electropolish--------10Ra
- C = STS 316L Internal Electropolish---10Ra
- D = STS 316L Electropolish--------10Ra
  VAR Precision (P.E.P)
- E = STS 316L Electropolish -------- 5Ra
  VAR Precision (P.E.P)

OUTLET PRESSURE RANGES
- 025 = 1-25PSIG (.1-1.7bar)
- 050 = 1-50PSIG (.1-3.5bar)
- 100 = 1-100PSIG (.1-7bar)
- 250 = 1-250PSIG (.1-17bar)

DIAPHRAGM MATERIAL
- S = Stainless Steel 316L
- H = Hastelloy-C

MAXIMUM INLET PRESSURE
- L = 600PSIG (41bar)
- H = 3500PSIG (238bar)

SEAT MATERIAL
- P = PCTFE
- T = Teflon®
- V = Vespel®

GAUGE PORT OPTIONS / **GAUGE PORTS**
- G0S = None ---------- 0
- G1S = 1/4" H.P.I.C ---------- 1
- G2S = 1/4" H.P.I.C ---------- 2
- G2B = 1/4" H.P.I.C ---------- 2
- M1S = 1/4" Male Swivel ---------- 1
- M2S = 1/4" Male Swivel ---------- 2
- M2B = 1/4" Male Swivel ---------- 2
- F1S = 1/4" Female Swivel ---------- 1
- F2S = 1/4" Female Swivel ---------- 2
- F2B = 1/4" Female Swivel ---------- 2
- S1S = 1/4" Fixed Male ---------- 1
- S2S = 1/4" Fixed Male ---------- 2
- S2B = 1/4" Fixed Male ---------- 2

INLET & OUTLET PORT SIZE & TYPE / **"A"± 0.2mm**
- 4HP = 1/4" H.P.I.C
- 4MS = 1/4" Male Swivel ---------- 94.00
- 4FS = 1/4" Female Swivel ---------- 94.00
- 8MS = 3/8" Male Swivel ---------- 120.00
- 8FS = 3/8" Female Swivel ---------- 120.00
- 2MS = 1/2" Male Swivel ---------- 140.00
- 2FS = 1/2" Female Swivel ---------- 140.00
- 3MS = 3/4" Male Swivel ---------- 160.00
- 3FS = 3/4" Female Swivel ---------- 160.00
- 4IMF= In Port 1/4" Male / Out Port Female ------- 94.00
- 4IFM= In Port 1/4" Female / Out Port Male ------- 94.00
- 4TS = 1/4" Tube Stubs ---------- 94.00
- 8TS = 3/8" Tube Stubs ---------- 94.00
- 2TS = 1/2" Tube Stubs ---------- 120.00

FLOW CAPACITY
- O = Cv = 0.2 Standard (1/4")
  Cv = 0.2 Standard (3/8")
- S = Cv = 0.5 Standard (1/2")
- O = Cv = 1.0 Optional (1/2")
- S = Cv = 1.2 Standard (3/4")

Recommendations

Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25%–75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

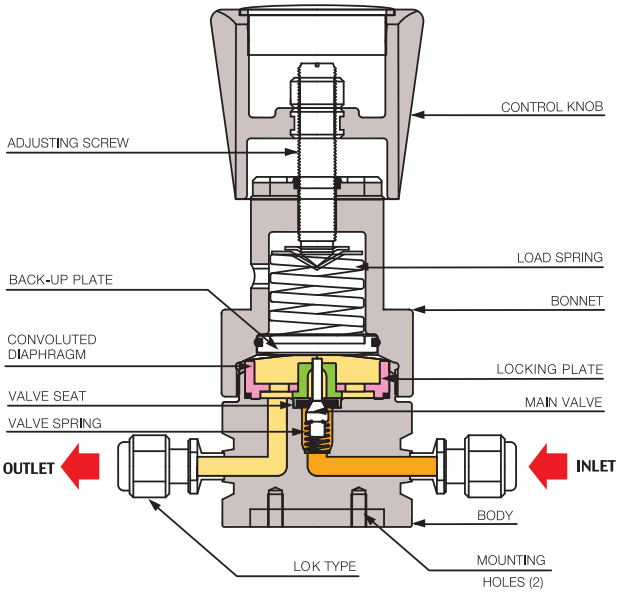
DRA700 SERIES

ULTRA HIGH PURITY B. A. MICROINCH INTERNAL FINISHES

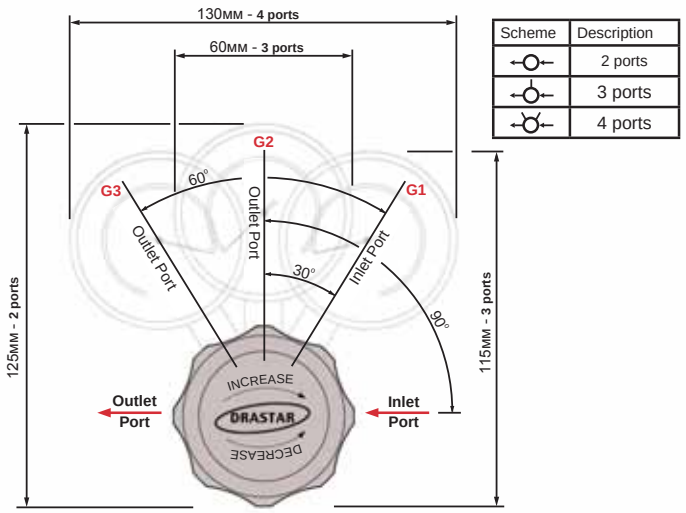
DRA700 SERIES

DRA700 Series is the economical model of pressure reducing regulator which is suitable to use for the hook-up line, bulk gas line and high-purity gases and realizes the optimal performance and washing. It is suitable to use at the semi-conductor production line. Internal surface is processed to the grade of B. A. Patent-applied locking-plate system is also used to this model. All processes of assembly, welding, testing and washing of DRA700 series are carried out and thoroughly managed in the 1000-class and 100-class clean room. DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the selfchanging of pre-set value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009-0012957).

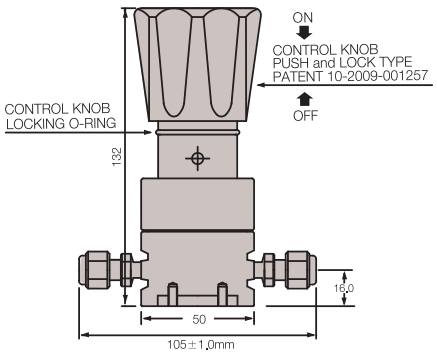
FUNCTIONAL SCHEMATIC

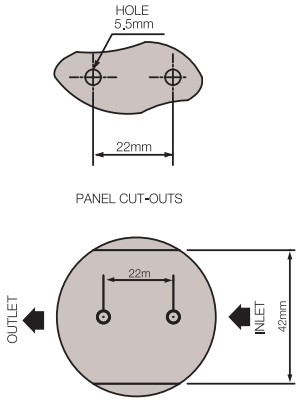


GAUGE PORT OPTIONS

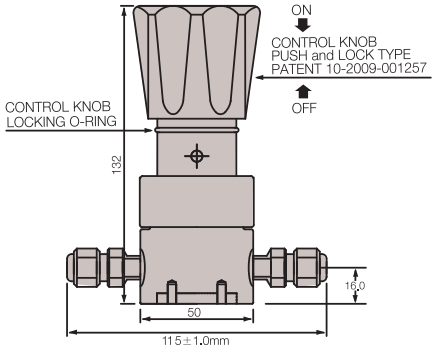


DRA700 Series 1/4″

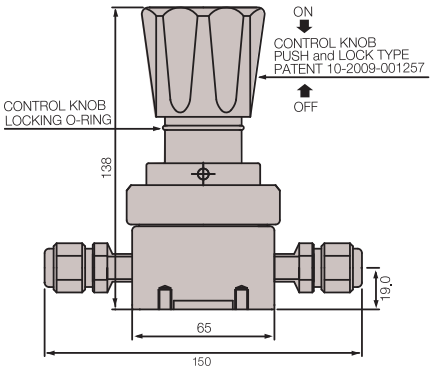


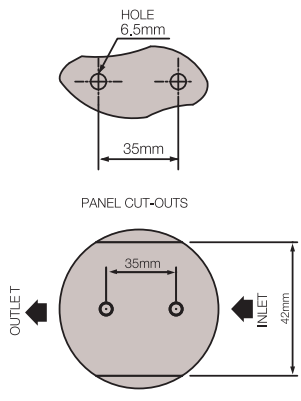


DRA700 Series 3/8″

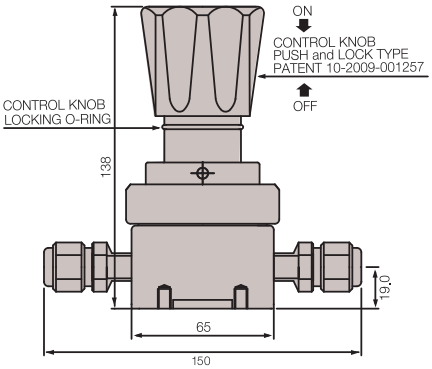


DRA700 Series 1/2″





DRA700 Series 3/4″



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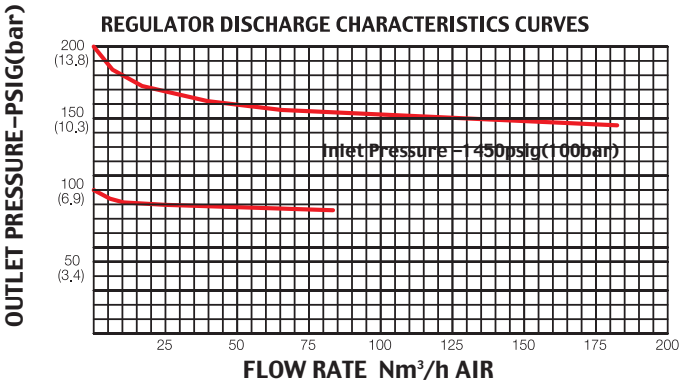
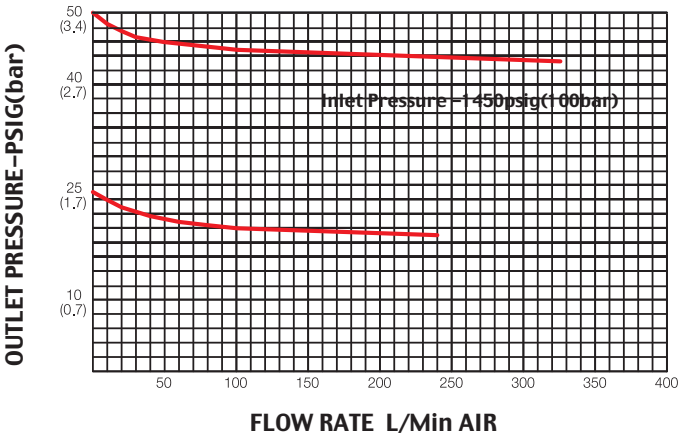
FLOW CHART





FEATURES

- Lok Type Regulator
- suitable for the hook-up line of semiconductor process
- Internal surfaces B. A. grade
- All performed in class 1000 and class 100 clean-rooms
- Locking-Plate Seal system(Patent No : 10-0753280)

ORDERING INFORMATION

DRA700 - A 100 - L P O - 4L - G0S

BASIC SERIES

BODY MATERIAL / **FINISH**
A = Bright Annealed ---------- B.A

OUTLET PRESSURE RANGES
025 = 1-25PSIG (.1-1.7bar)
050 = 1-50PSIG (.1-3.5bar)
100 = 1-100PSIG (.1-7bar)
250 = 1-250PSIG (.1-17bar)

MAXIMUM INLET PRESSURE
L = 600PSIG (41bar)
H = 3500PSIG (238bar)

SEAT MATERIAL
P = PCTFE
T = Teflon®

GAUGE PORT OPTIONS / **GAUGE PORTS**

G0S = None	0
G1S = 1/4" H.P.I.C	1
G2S = 1/4" H.P.I.C	2
G2B = 1/4" H.P.I.C	2
M1S = 1/4" Male Swivel	1
M2S = 1/4" Male Swivel	2
M2B = 1/4" Male Swivel	2
F1S = 1/4" Female Swivel	1
F2S = 1/4" Female Swivel	2
F2B = 1/4" Female Swivel	2

INLET & OUTLET PORT SIZE & TYPE / **"A"±1.0mm**

4L = 1/4" Lock	105.00
8L = 3/8" Lock	115.00
2L = 1/2" Lock	150.00
3L = 3/4" Lock	150.00

FLOW CAPACITY
O = Cv = 0.2 Standard (1/4")
Cv = 0.2 Standard (3/8")
S = Cv = 0.5 Standard (1/2")
O = Cv = 1.0 Optional(1/2")
O = Cv = 1.2 Standard (3/4")

Recommendations to Use
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25%~75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

077 SERIES

BACK PRESSURE REGULATOR

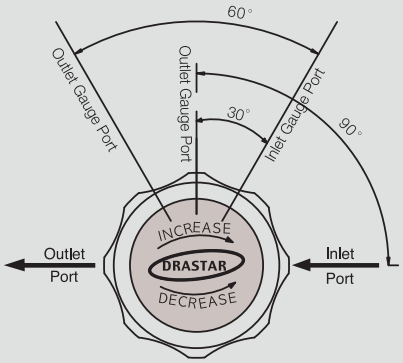
077 SERIES

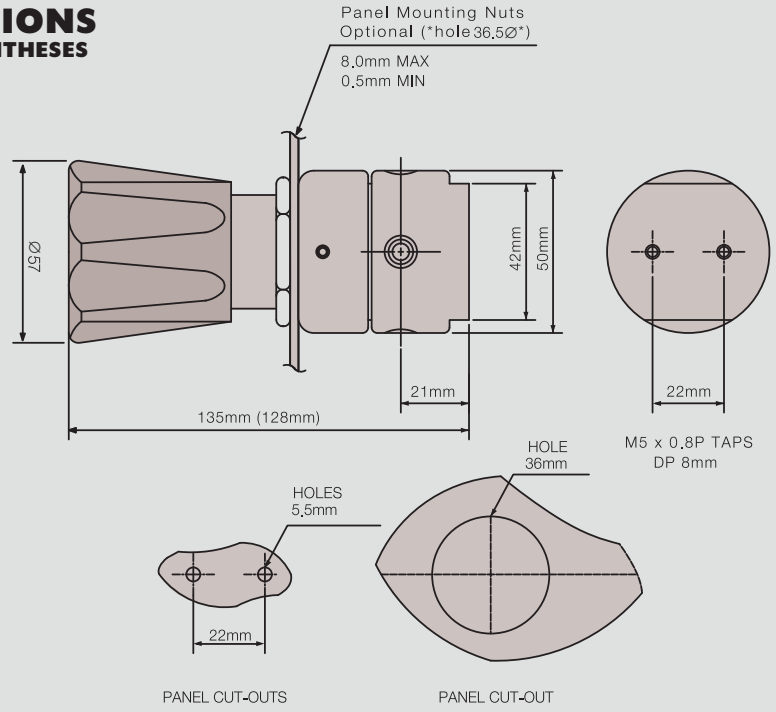
077 Series is the back-pressure type regulator suitable for water, chemical, liquid, gas, etc. and uses NPT 1/4″pipe exclusively. Regulator body is made of brass or stainless steel 316L and has the wide range of working pressure of 0.2 ~ 25 bar (362psi) by model. DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the self-changing of pre-set value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009-0012957).

INSTALLATION DIMENSIONS

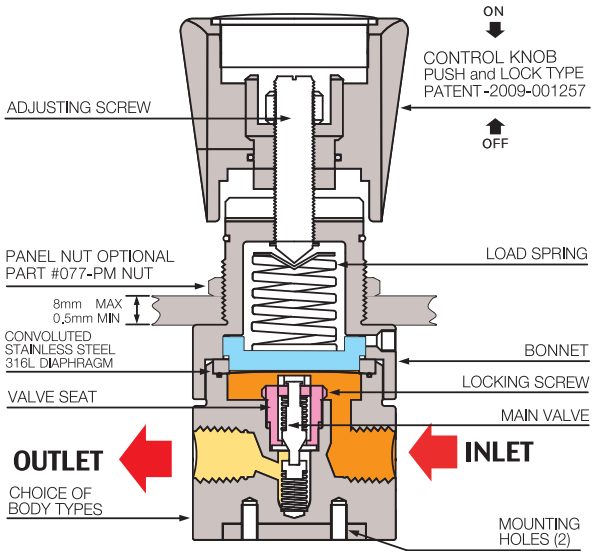
METRIC EQUIVALENTS ARE IN PARENTHESES

■ GAUGE PORT OPTIONS

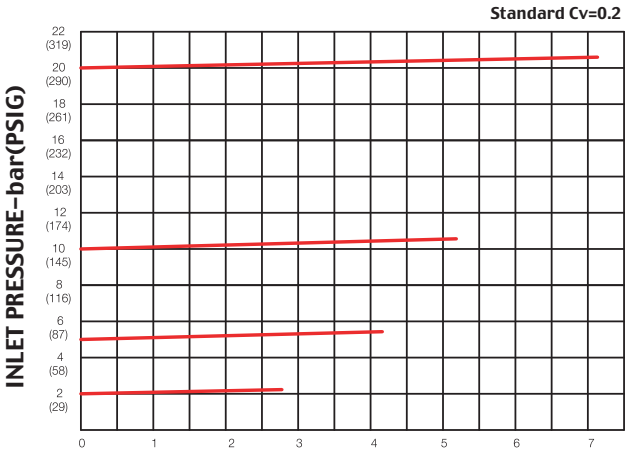




FUNCTIONAL SCHEMATIC



FLOW CHART



FLOW RATE – SCFM (LPM) Air (*1 LPM=28.3 SCFM*)

FLOW RATE L/Min AIR

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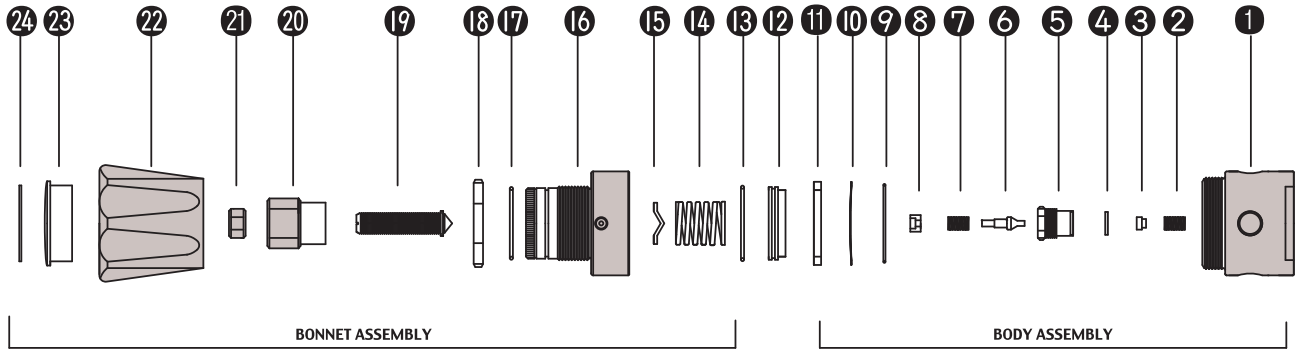
077 SERIES PART LIST



STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	077-01-01	077-01-1 Stainless Steel 316L body / 077-01-02 Brass body
02	Low Valve Spring	077-02	All Model Same
03	Sprimg Locking Plate	077-03	All Model Same
04	Valve Seat	077-04	077-04-01 2bar, 5bar, 10bar, 25bar
05	Valve Seat Locking Screw	077-05	All Model Same
06	Main Valve	077-06	All Model Same
07	Valve Sprimg	077-07	All Model Same
08	Valve Sprimg Locking Plate	077-08	All Model Same
09	O-Ring	077-09	All Model Same
10	STS316L Diaphragm	077-10	All Model Same
11	Locking Ring	077-11	All Model Same
12	Back-up Plate	077-12	All Model Same
13	O-Ring	077-13	All Model Same
14	Load Spring	077-14	077-32-01 2bar, 5bar, 10bar, 25bar
15	Pivot	077-15	All Model Same
16	Bonnet	077-16	All Model Same (077-40-03, Stainless steel 316L Bonnet Optional)
17	O-Ring	077-17	All Model Same
18	Panel mount Nut	077-18	All Model Same
19	Adjusting Screw	077-19	All Model Same
20	Push and Lock Slide	077-20	All Model Same
21	Locking Nut	077-21	All Model Same
22	Control Knob	077-22	All Model Same
23	Name Cap	077-23	All Model Same
24	Name Cap Plate	077-24	077-48-01 2bar, 5bar, 10bar, 25bar

SPECIFICATIONS

Ports	077S-000-2NP4 2-ports NPT 1/4 077S-000-3NP4 3-ports
Leak Rate Certification	to 2x10-8 atm cc/sec Helium available.
Body Materials	077S-000-xNP4 / Stainless steel 316L 077B-000-xNP4 / Brass
Bonnet Material	Nickel Plated Brass / (Stainless steel 316L Optional)
Diaphragm	Stainless steel 316L
Main Valve	Stainless steel 316L
Valve Spring	Stainless steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.. Optional)
Outlet Pressure Ranges	2bar(30psig), 5bar(72psig) 10bar(145psig), 25bar(362psig)
Operating Temperature	-40°C - +70°C (standard) 077S-000-xNP4-H1, +120□ (Optional) 077S-000-xNP4-H2, +250□ (Optional)
Flow Capacity	Cv=0.2 (Standard)

FEATURES

- Precision control of 1/4"NPT Type Back Pressure Regulator
- Suitable for the research labs, industrial control
- Control 2bar(30psig), 5bar(72psig) 10bar(145psig), 25bar(362psig)
- Panel mounting NUT (#077-PM nut) option
- W077S-000-XNP4 W MODEL IS ONLY TYPE for LIQUID or WATER

ORDERING INFORMATION

W 077 - S - 002 - 2 - NP4 - H - H1

W MODEL IS ONLY TYPE FOR LIQUID or WATER

BASIC SERIES
077

BODY MATERIAL
S = STS 316L
M = MONEL

DIAPHRAGM and INTERNAL PARTS
S = STS 316L
B = STS 316L
M = Hastelloy or Monel

HIGH TEMPERATURE
H1 = 120 ˚C
H2 = 250 ˚C

DIAPHRAGM MATERIAL
H=Hastelloy-c(Optional)

IN & OUT PORTS SIZE
NP4 = 1/4" NPT

Ports
2 = 2 Port
3 = 3 Port
4 = 4 Port

CONTROLLED PRESS. RANGES
002 = 2bar (30psi)
005 = 5bar (72psi)
010 = 10bar (145psi)
025 = 25bar (362psi)

Recommendations
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25% ~ 75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

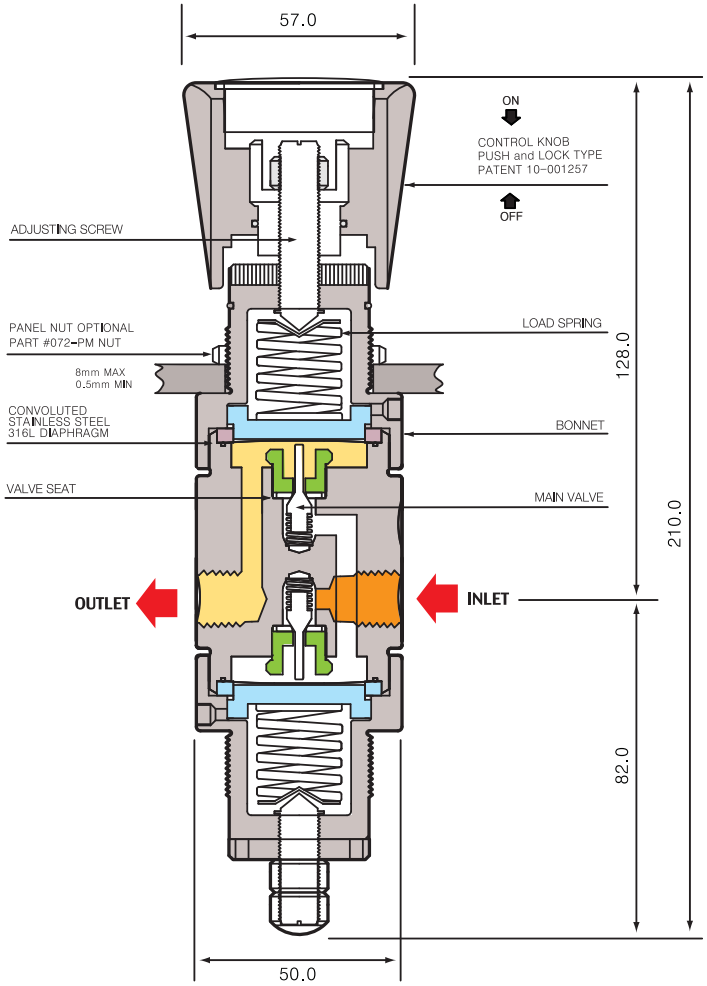
2000 SERIES

TWO STAGE PRESSURE REGULATOR

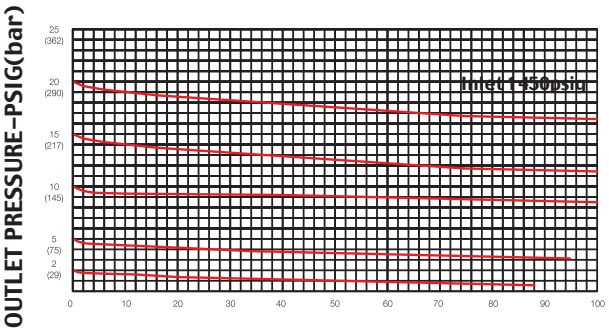
2000 SERIES

2000series Twostage reducing Gas regulators are specially designed to regulate high pressure gas to use in low pressure status.As the product's body and all internal parts Are made of stainless steel 316L that is strong for corrosiveness and high purity application.Max inlet pressure is 250 bar and outlet pressure can be used upto 20 bar. DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own
developed push and lock type handle which completely prevents theself-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline.
You can prevent the self-changing of pre-set value just by pushing the handle and reset thevalue freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-2009- 0012957)

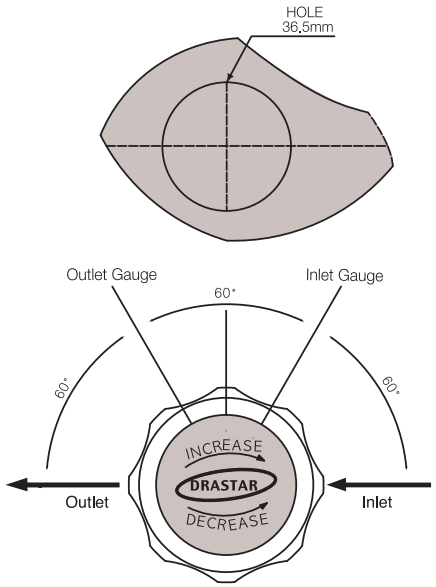
FUNCTIONAL SCHEMATIC



FLOW CHART



PANEL CUT-OUT



TWO STAGE PRESSURE REGULATOR

SPECIFICATIONS

Connections	NPT 1/4" Female (inlet, outlet and gauge ports)
Maximum Rated Inlet Pressure	250 bar (3500 psig)
Outlet Pressure Ranges	0-2 bar, 0-5 bar, 0-10 bar, 0-20 bar
Design Proof Pressure	150% of maximum rated pressure
certified maximum Inboard Leak Rate	$2x10^{-8}$ atm cc/sec Helium
Body Materials	316L Stainless Steel
Bonnet Material	Nickel Plated Brass or 316L Stainless Steel (Optional)
Diaphragm	316L Stainless Steel or Hastelloy C-22 (Optional)
Main Valve	316L Stainless Steel or Hastelloy C-22 (Optional)
Valve Seat	Teflon
Operating Temperature	-40°C to +75°C
Flow Capacity	Cv=0.06
Decaying Inlet Characteristic	Cv=0.06 (0.05 change/100 psig inlet pressure)

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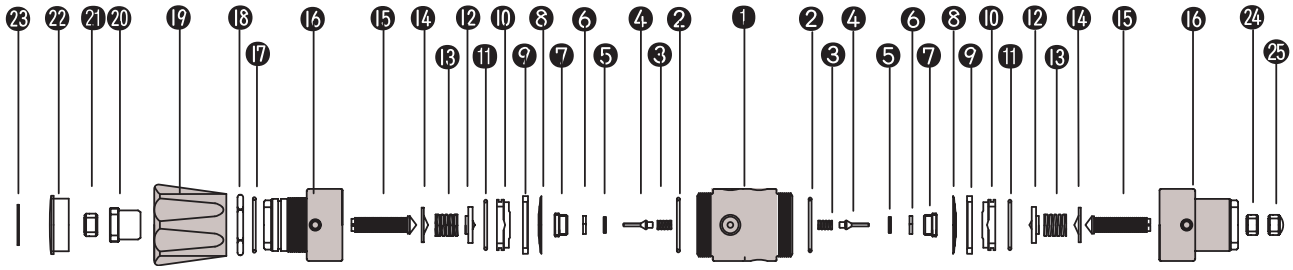
8 avenue Dante, 67200 Strasbourg, France

2000 SERIES PART LIST



STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	072-02-01	02-01 Stainless Steel 316L body / 02-02 Brass body
02	Boby O-Ring	072-02-00	All Model Same
03	Valve Spring	072-04-01	04-01 STS 316L / 04-03 Hastelloy-C-22 / 04-04 Monel
04	Main Valve	072-06-01	06-01 STS 316L / 06-03 Hastelloy-C-22 / 06-04 Monel
05	Valve Seat	072-10-01	10-01 PFA / 10-05 Vespel / 10-06 Peek
06	Valve Seat Cartridge	072-08-01	08-01 Stainless Steel 316L / 08-02 Brass
07	Locking Screw	072-12-01	All Model Same
08	Diaphragm	072-16-01	16-01 STS 316L / 16-02 Hastelloy C-22
09	Diaphragm Plate	072-22-02	All Model Same
10	Back-up Plate	072-26-03	All Model Same
11	Back-up Plate O-Ring	072-28-01	All Model Same
12	Spring Plate	072-30-01	All Model Same
13	Load Spring	072-38-01	11-01 25psi / 11-02 50psi / 11-03 100psi / 11-05 250psi / 11-07 500psi
14	Pivot	072-40-01	All Model Same
15	Adjusting Screw	072-42-01	All Model Same
16	Bonnet	072-44-02	44-01 Stainless steel 316L / 44-02 Brass
17	Push & Lock O-Ring	072-46-01	All Model Same
18	Panel mount Nut	072-48-01	All Model Same
19	Control Knob	072-50-01	50-01 ABS / 50-04 Aluminum Control knob
20	Push & Lock Handle nut	072-52-01	All Model Same
21	Locking Nut	072-54-01	All Model Same
22	Name Cap	072-56-01	56-01 ABS
23	Name Cap Plate	072-58-01	58-01 25psi/58-02 50psi/58-03 100psi/58-04 200psi/58-06 350psi/58-07 500psi
24	1st Bonnet Locking Nut	072-	All Model Same
25	1st Bonnet Cap Nut	072-	All Model Same

ORDERING INFORMATION

2000 S – 002 – NP4 – S H

BASIC SERIES NUMBER
Standard Inlet Pressure
3500PSIG (238 bar)

BODY MATERIAL
B = Brass
S = Stainless Steel 316L

OUTLET PRESSURE RANGE
002 = 1-2bar 1-29PSIG
005 = 1-5bar 1-75PSIG
010 = 1-10bar 1-145PSIG
020 = 1-20bar 1-290PSIG

DIAPHRAGM MATERIAL
H = HASTELLOY C (Optional)

FLOW CAPACITY
S = Cv=0.06 (Standard)

INLET AND OUTLET PORTS SIZE
NP4 = 1/4" NPT

Recommendations
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However inorder to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25% – 75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

DR70 SERIES

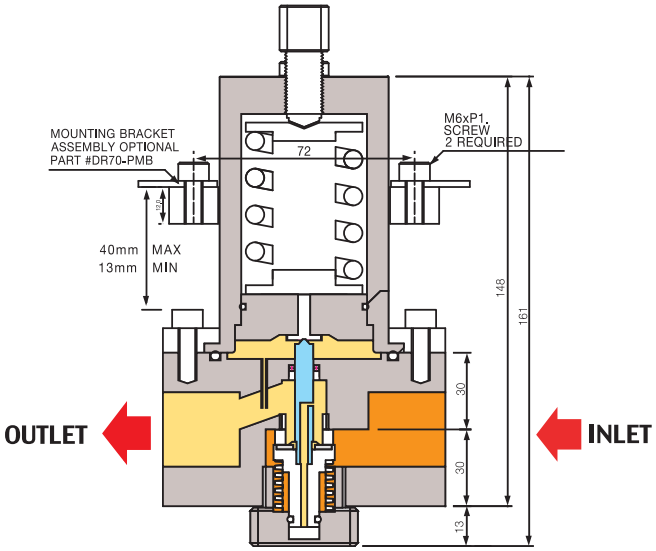
HIGH-FLOW AND HIGH PRESSURE REGULATOR

DR70 SERIES

DR70 Series is a regulator most suitable for pipeline application where high flow of water, chemical, liquid, gas, etc. is requested. NPT or BSP 3/4″and up to 1″pipe can be selectively used to this series. The self-correction function of DROP built in this regulator enables to keep the P2 pressure (adjusted or setting pressure) stable and constant without impact from P1 if it faces big pressure differences at P1. Regulator body is made of brass or stainless steel 316L and has the wide range of inlet pressure up to 250bar (3,625psi) for brass body and 350bar (5,076psi) for stainless steel body respectively by model. Outlet working pressure has the range of 0.5~55bar(780psi) by model.

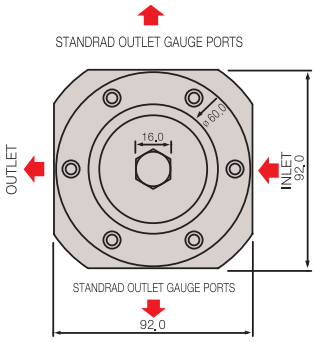
FUNCTIONAL SCHEMATIC

■ BOLT CONTROL TYPE (DR701 SERIES)

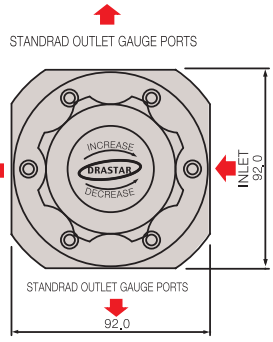


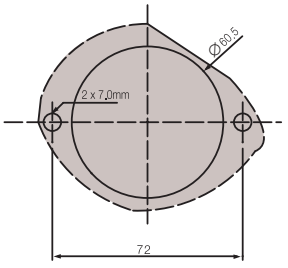
INSTALLATION DIMENSIONS

■ BOLT CONTROL TYPE



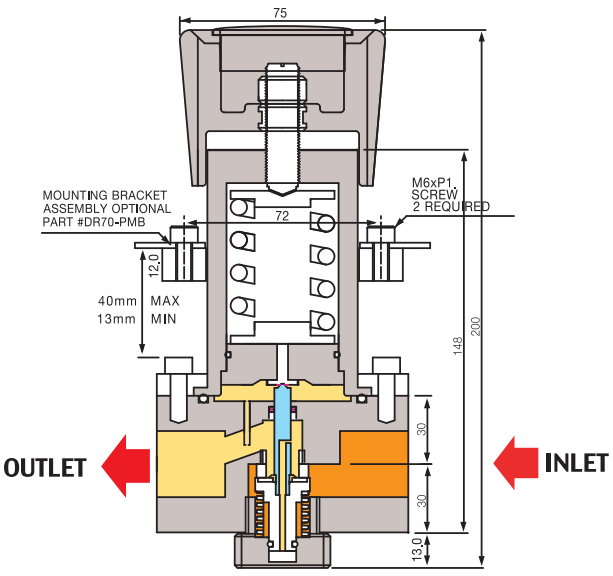
■ KNOB CONTROL TYPE





FUNCTIONAL SCHEMATIC

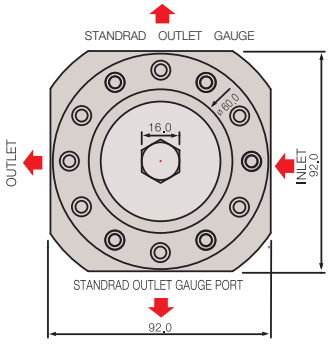
■ KNOB CONTROL TYPE (DR702 SERIES)



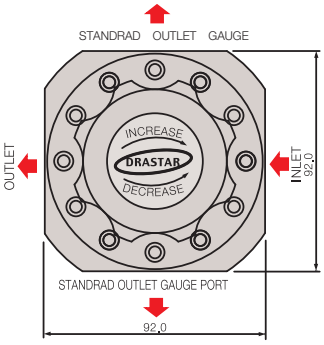
INSTALLATION DIMENSIONS

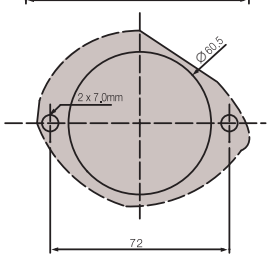
(For SH Type - 12pcs Bolts)

■ BOLT CONTROL TYPE



■ KNOB CONTROL TYPE





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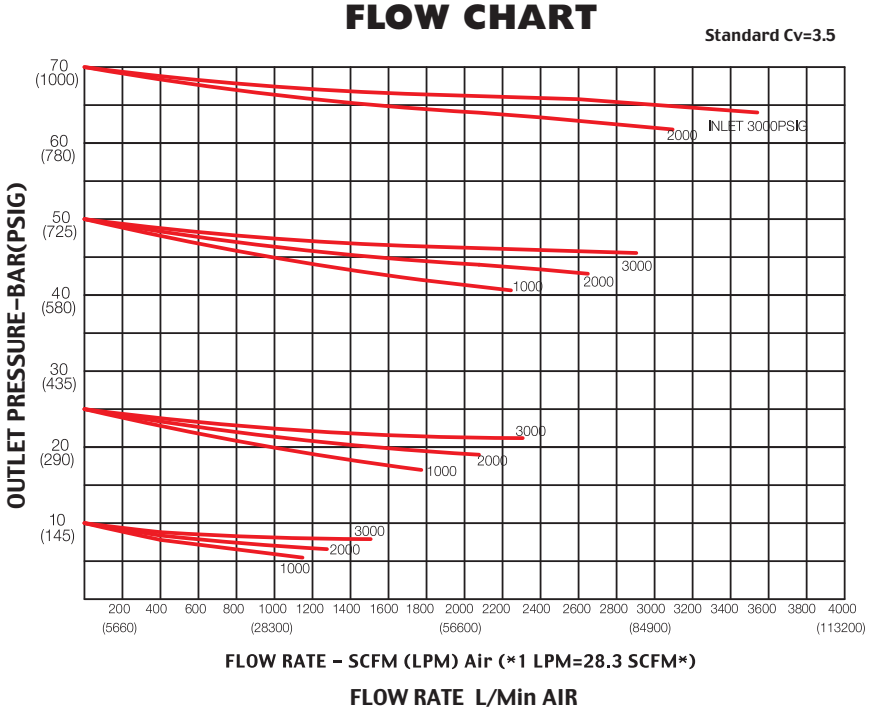
FLOW CHART



SPECIFICATIONS

Ports	DR70x-SP-010 -NP2 3/4 NPT DR70x-SP-010 -BS2 3/4 BSP DR70x-SP-010 -NP3 1 NPT DR70x-SP-010 -BS3 1 BSP
Leak Rate Certification	to $2x10^{-8}$ atm cc/sec Helium available.
Body Materials	DR70x-BP-010 -NP2 Brass DR70x-SP-010 -NP2 Stainless steel 316L
Bonnet Material	Nickel Plated Brass / Stainless steel 316L (Optional)
Main Valve	Stainless steel 316L
Valve Spring	Stainless steel 316L(Optional)
Valve Seat	DR70x-SV-010 -NP2 VESPEL DR70x-SP-010 -NP2 TEFLON
Outlet Pressure Ranges	10bar(145psig), 25bar(362psig) 50bar(725psig), 70bar(1015psig)
Operating Temperature	-30°C–+60°C VITON / -40°C–+70°C TEFLON (standard)
Flow Capacity	Cv= 3.5 (Standard)

FEATURES

- Precision control of NPT or BSP 3/4"1"Type Regulators
- Drop-prevention function Built-in.
- Suitable for the research labs, industrial control
- Outlet 10bar(145psig), 25bar(362psig) 50bar(725psig), 70bar(1015psig)
- Panel mounting Bracket #DR70-PMB option

ORDERING INFORMATION

DR70 1 - S - P - 010 - NP 2 - V - H1

BASIC SERIES
DR70

CONTROL TYPE
1 = BOLT TYPE
2 = KNOB CONTROL

BODY MATERIAL
S = STS 316L 3000 Psig (200bar)
B = BRASS 1500 Psig (100bar)
SH = STS316L 6000 Psig(410bar)

VALVE SEAT
P = TEFLON
V = VESPEL

HIGH TEMPERATURE
H1 = 120℃
H2 = 250℃
H3 = 500℃

SELF-EVNTING
V = SELF - VENTING

IN & OUT PORTS SIZE
2 = 3/4 "
3 = 1"

IN & OUT PORTS TYPE
NP = NPT
BS = BSP

CONTROLLED PRESS. RANGES
010 = 10bar
025 = 25bar
050 = 50bar
070 = 70bar
(SH Model Only)
150 = 150bar
250 = 250bar
350 = 350bar

Recommendations
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25%–75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.