

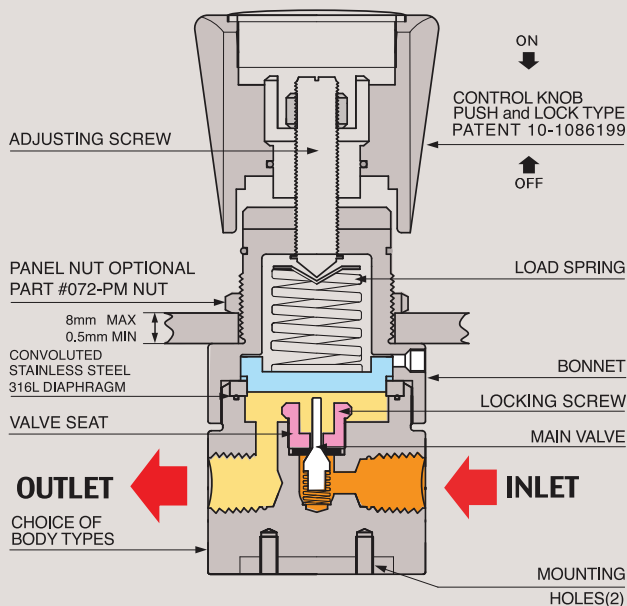


# 072 SERIES

Single Stage Low Pressure Regulators

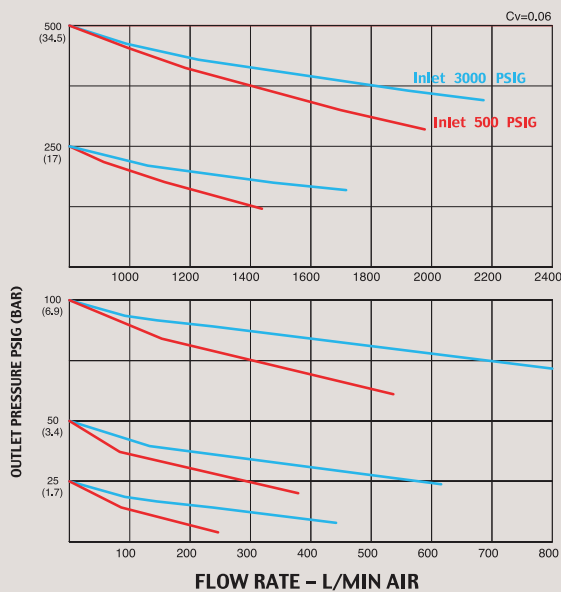


## FUNCTIONAL SCHEMATIC

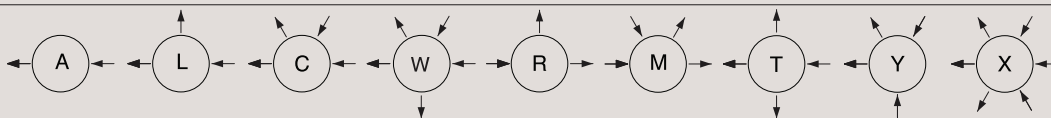


## FLOW CHART

REGULATOR DISCHARGE CHARACTERISTICS CURVES



Ports Type



## Single Stage Low Pressure NPT type (1/4")

072시리즈는 가스실린더 및 정밀 산업에서 가장 많이 필요로 하고 가장 많이 사용되는 1/4" NPT type 1단 Pressure Reducing Regulator 입니다.

- 본체와 내부의 모든 부품이 Stainless Steel 316L로 제작된 072S 모델은 가스실린더 및 일반가스 라인, Bulk Gas Line, 실험실, 분석용 특수 가스, 또는 고순도 가스, 미상용 가스, 그리고 부식성 gas와 액체 등에 모두 사용할 수 있도록 제작된 제품이며 Cv=0.06 또는 Cv=0.2중 선택 가능합니다.
- 입구 압력은 3000psig(210bar)이고 출구 압력은 모델에 따라 5psig(0.3bar)에서 최대500psig (35bar)까지 사용할 수 있으며, 용도에 따라 2-ports, 3-ports, 4-ports, 5-ports, 6-ports 등 다양하게 선택, 사용할 수 있습니다.
- 사용 중 가스라인이나 외부의 미세 진동 등으로 인하여 초기 압력 셋팅 값이 미세하게 변동하는 현상을 완전히 해결한 당사 Push and Lock 조절 손잡이 (당사 특허 #10-1086199)를 적용하여 사용하기에 더욱 편리합니다. 조절 손잡이를 누르면 (lock) 압력 셋팅 값이 변하는 것을 완전히 방지할 수 있고, 손잡이를 앞으로 당기면 (unlock) 자유롭게 원하는 압력으로 다시 셋팅 할 수 있습니다.

※ 주의 : 크린라인이 아닌 일반 라인에 사용 할 경우 반드시 필터링(gas 7 $\mu$ m~15 $\mu$ m, water 15 $\mu$ m~80 $\mu$ m)을 하여야 하며, 그렇지 않을 경우 바로 고장의 원인이 됩니다. 모든 제품은 필터링하여 사용하면 A/S 비용 절감과 제품의 수명연장에 많은 도움이 됩니다.

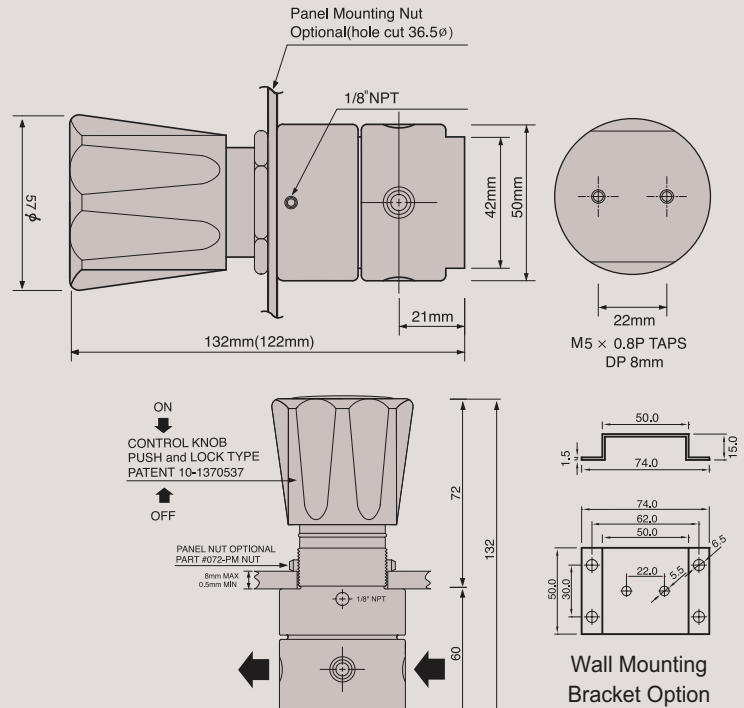
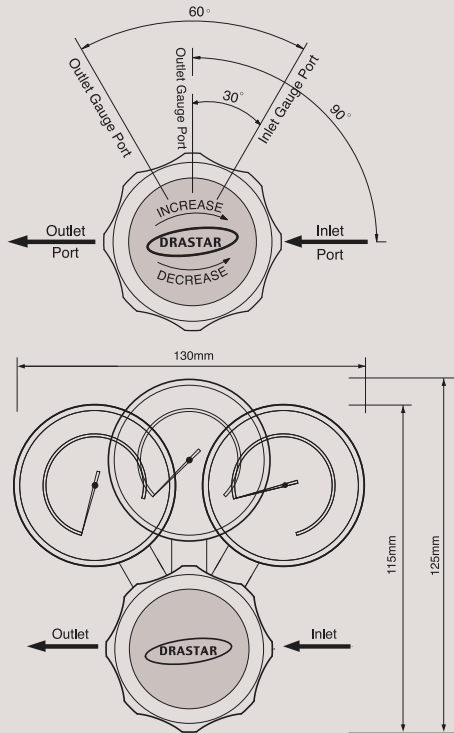
## Specifications

In/Outlet Port Size	1/4" FNPT / Gauge port: 1/4" NPT
Body	072S-0000-1S: Stainless Steel 316L 072B-0000-1S: Nickel Plated Brass
Bonnet	Nickel Plated Brass (Standard) / Stainless Steel (Option)
Diaphragm	Stainless Steel 316L
Main Valve	Stainless Steel 316L
Valve Spring	Stainless Steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.: optional)
Maximum Inlet Pressure	072x-0000-1S : 3,000psig (210bar) 072x-0000-1S-5 : 600psig (42bar)
Outlet Pressure Range	25(1.7bar), 50(3.4bar), 100(7bar), 250(17bar), 500psig(35bar)
Design Proof Pressure	150% of maximum rated
Leakage	to 2x10 <sup>-8</sup> atmcc/secHeliumavailable
Operating Temperature	-40°C to +70°C(-40°F to +160°F) (Standard) H1 option: up to +120°C (Optional) H2 option: up to +250°C (Optional)
Flow Capacity	Cv = 0.06 (Standard), 0.2 (Option)
Other Options	CGA, Pressure Gauge, etc.
Weight	Approx. 1.2kgs

## INSTALLATION DIMENSIONS

METRIC EQUIVALENTS ARE IN PARENTHESES

### ■ GAUGE PORT OPTIONS



**072 Series is a 1/4" NPT type single-stage low pressure reducing regulator being most extensively used for gas cylinder and precision industry.**

With DRASTAR's patented (patent 10-1086199) "push and lock type handle", you can operate it easily and stably; "locking" by pushing down the handle will prevent any slight change of pre-set pressure value, which could possibly be caused by any vibration from gas pipeline or ambient applications and the other way "unlocking" by pulling it back enables you to adjust the pressure value freely again.

### Features & Applications

- Inlet pressures are 3000psig (210bar) or 600psig (42bar) and outlet pressures are 25psig (1.7bar) ~ 500psig (35bar)
- Panel mounting nut or wall mounting bracket available as option
- Design proof pressure: 150% of maximum rated
- Applicable for research labs, industrial gas control, gas cylinder, general gas line, bulk gas line, analytical application, ultra-pure gases, mixing gases, corrosive gases as well as liquid lines.
- 2-ports, 3-ports, 4-ports and 5-ports, 6-ports available

※ DRASTAR's all pressure regulators are assembled, cleaned, inspected, and packed in clean-rooms equipped with clean bench, helium detector, particle counter, ultrasonic cleaner, ultrapure water system, vacuum packaging machine, etc. through oxygen cleaning procedure in compliance with process and regulations indicated in CGA 4.1. and or ASTM G-93 and are free of any grease or oils.

※ **Caution:** Filtering (gas  $7\mu\text{m}\sim 15\mu\text{m}$ , water  $15\mu\text{m}\sim 80\mu\text{m}$ ) is a MUST to use in the general gas application other than high purity gases. Otherwise, it may cause a failure to the regulators. It is strongly recommended to install filter for extension of life span and saving the maintenance expense.

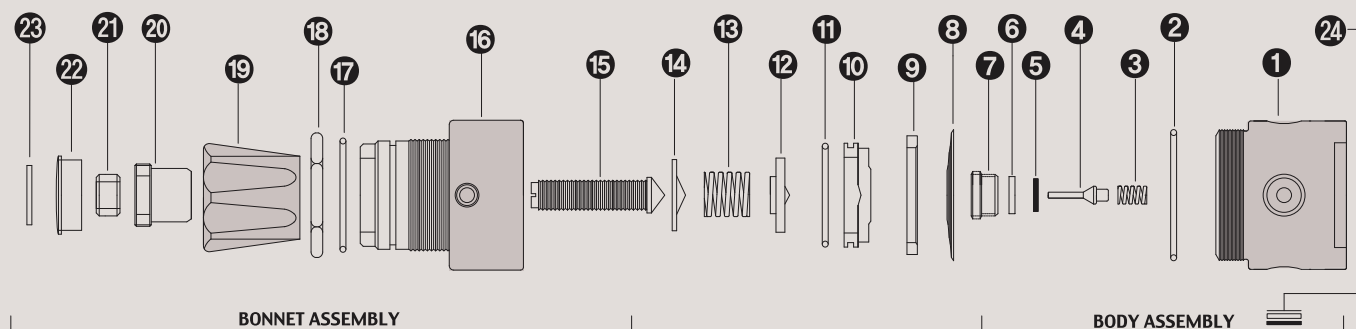
### ORDERING INFORMATION

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

BASIS SERIES NUMBER	BODY MATERIAL	OUTLET PRESSURE RANGE	PORT TYPE	FLOW CAPACITY	DIAPHRAGM MATERIAL	INLET PRESSURE	SELF VENTING	HIGH TEMPE- RATURE
Standard Inlet Pressure 3000psig (210 bar)	B = Brass S = Stainless Steel 316L	0025 = 25psi(1.7bar) 0050 = 50psi(3.5bar) 0100 = 100psi(7bar) 0250 = 250psi(17bar) 0500 = 500psi(35bar)	A = 2-Ports L = 3-Ports C = 4-Ports W = 5-Ports R = 3-Ports M = 4-Ports T = 4-Ports Y = 4-Ports X = 6-Ports	1 = 1/4" NPT  S = Cv 0.06 Standard  O = Cv 0.2 Optional	STS 316L Standard  H = Hastelloy-C  Optional	5 = Inlet 600psi(42bar)  Optional	V = Self- Venting  Optional	H1 = +120° C H2 = +250° C H3 = +320° C  Optional

※ Note : 1) (W) model is only for liquid and water. 2) H1, H2, H3 option is not available for brass products.

## 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
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
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