

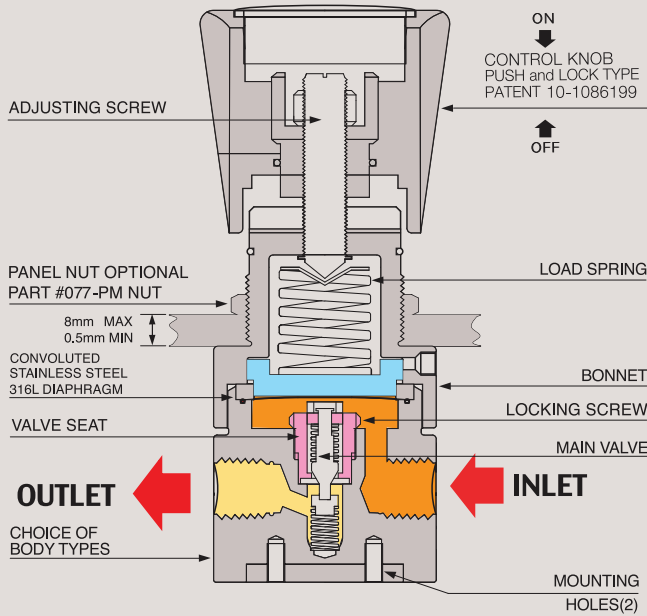


# 077 S E R I E S

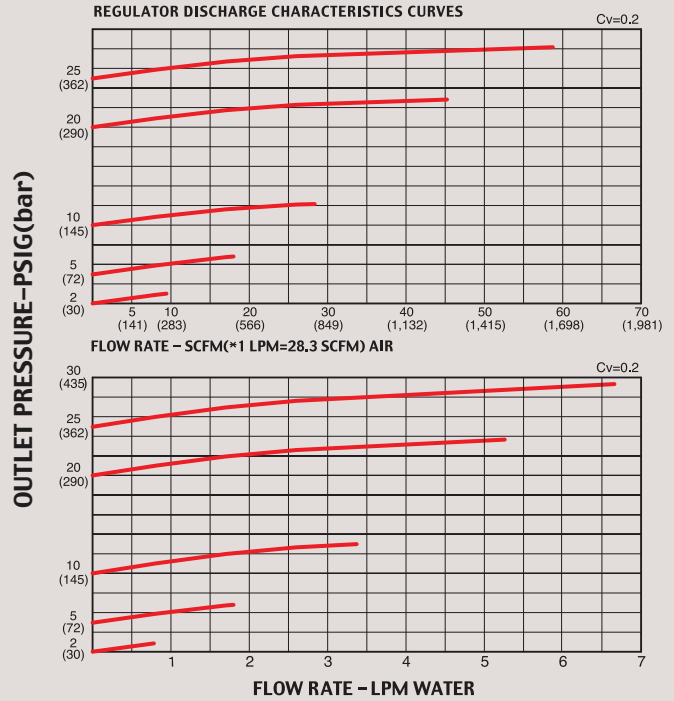
Relief / Backpressure Reducing Regulators



## FUNCTIONAL SCHEMATIC



## FLOW CHART



## 077 Backpressure Low Pressure

### Relief / Backpressure NPT 1/4"

- 077시리즈는 Relief / Back Pressure Regulator로서 물, 케미칼, Liquid 또는 가스 등의 저 압력 (Low Pressure) 조정에 적합한 제품이며 배관 사이즈는 NPT 1/4" 전용으로 Cv=0.2 입니다.
- Body의 재질은 Stainless Steel 316L로 이루어졌으며 모델에 따라 0.3 bar (5psig)에서 20bar(290psig)까지back pressure를 폭넓게 조절할 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.
- ※ Caution: Filtering (gas 7 $\mu$ m~15 $\mu$ m, water 15 $\mu$ m~80 $\mu$ 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.

### Specifications

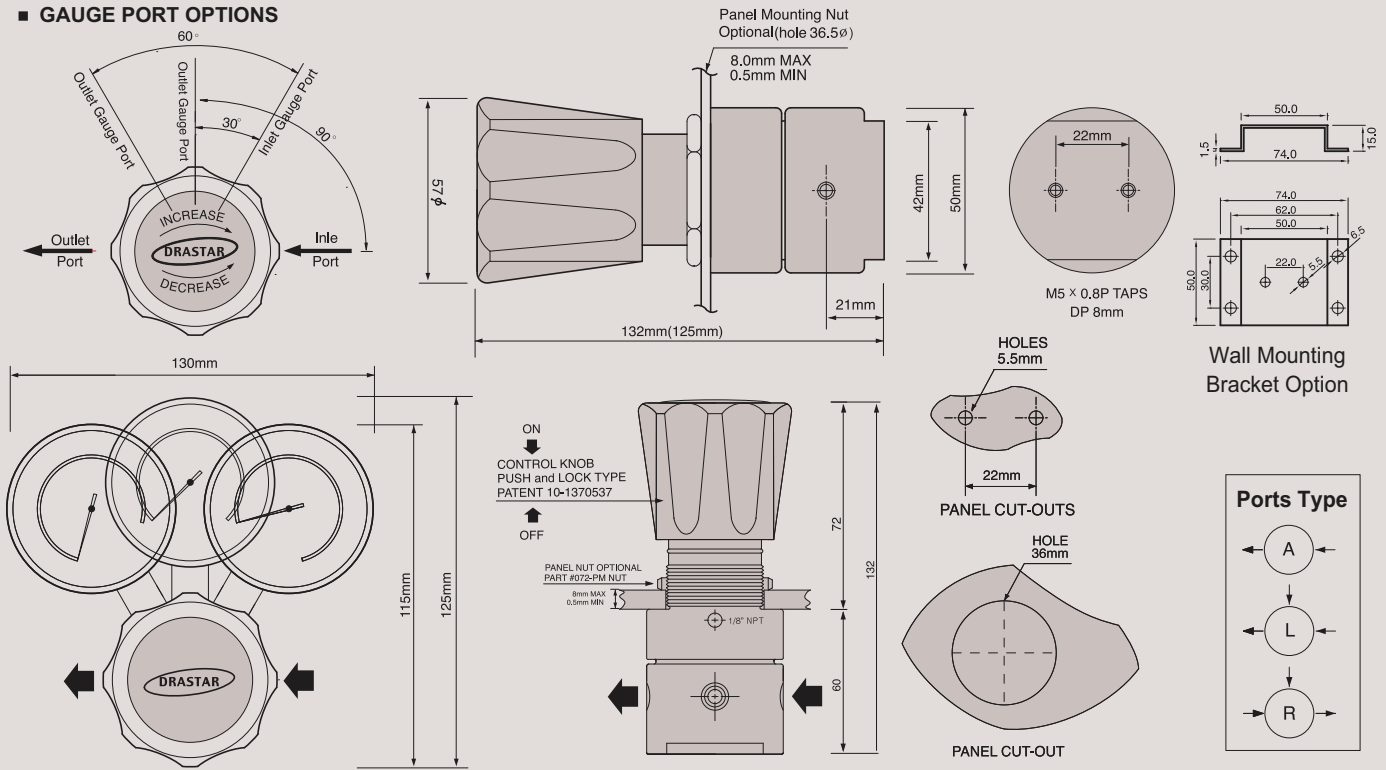
In/Outlet Port Size	1/4" FNPT / Gauge port: 1/4" NPT
Body	Stainless Steel 316L
Bonnet	Nickel Plated Brass (Standard) / Stainless Steel (Option)
Diaphragm	Stainless Steel 316L / Hastelloy C (Option)
Main Valve	Stainless Steel 316L
Valve Spring	Stainless Steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.: optional)
Controlled Pressure Range	2bar(30psig), 5bar(72psig) 10bar(145psig), 20bar(290psig)
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 = 0.2
Weight	Approx. 1.0kgs

**REFERENCE**

Contents in the catalogue including specifications, performance data, etc. can be changed without prior notice in the course of continuous upgrading and improvement of the products.  
사양서와 성능데이터 등 카다록에 있는 내용은 당사 제품의 지속적인 업그레이드 및 개선의 과정에서 사전 예고 없이 변경될 수 있습니다.

**INSTALLATION DIMENSIONS**  
METRIC EQUIVALENTS ARE IN PARENTHESES

■ GAUGE PORT OPTIONS



**077 Series is a 1/4" NPT type relief/back-pressure regulator suitable for water, chemical, liquid, gas, etc. Regulator's body is made of brass or stainless steel 316L (077S) and 077 Series can be used for very low pressure of 0.3bar (5psig) up to 20 bar (290 psig).**

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**

- 1/4" NPT type back-pressure regulator
- Push and lock type handle (DRASTAR patent #10-1086199) mounted
- Controlled pressure ranges: 0.2bar~2bar, 0.5bar~5bar, 1bar~10bar, 2bar~20bar
- Panel mounting nut or wall mounting bracket as option
- Design proof pressure: 150% of maximum rated
- Applicable for water, chemical, liquid, gas, etc.

※ DRASTAR's all pressure regulators are assembled, cleaned, inspected, and packed in clean-room 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.

**ORDERING INFORMATION**

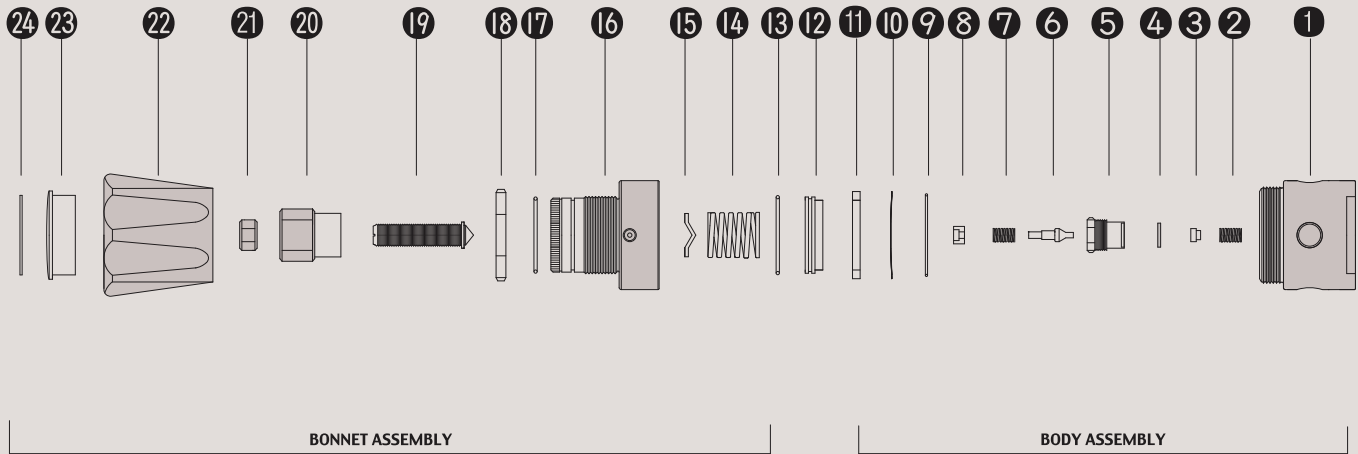
**(W)077 S - 002 A - 1S - H - H1**

BASIS SERIES NUMBER	BODY MATERIAL	CONTROLLED PRESSURE RANGE	PORTS	INLET OUTLET PORTS SIZE	DIAPHRAGM MATERIAL	HIGH TEMPERATURE
077 Series	S = Stainless Steel 316L	002 = 2bar (30psi) 005 = 5bar (72psi) 010 = 10bar (145psi) 020 = 20bar (290psi)	A = 2-Ports L = 3-Ports C = 4-Ports R = 3-Ports M = 4-Ports  Previous 2 = 2-Ports 3 = 3-Ports	1 = 1/4" NPT  S = Cv 0.2 Standard  Previous NP4 = 1/4" NPT	STS 316L Standard  H = Hastelloy-C  Optional	H1 = +120°C H2 = +250°C H3 = +320°C  Optional

※ Note : 1) (W) model is only for liquid and water.



## 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
02	Low Valve Spring	077-02	All Model Same
03	Spring Locking Plate	077-03	All Model Same
04	Valve Seat	077-04	077-04-01 2bar, 5bar, 10bar, 20bar
05	Valve Seat Locking Screw	077-05	All Model Same
06	Main Valve	077-06	All Model Same
07	Valve Spring	077-07	All Model Same
08	Valve Spring 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, 20bar
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, 20bar