

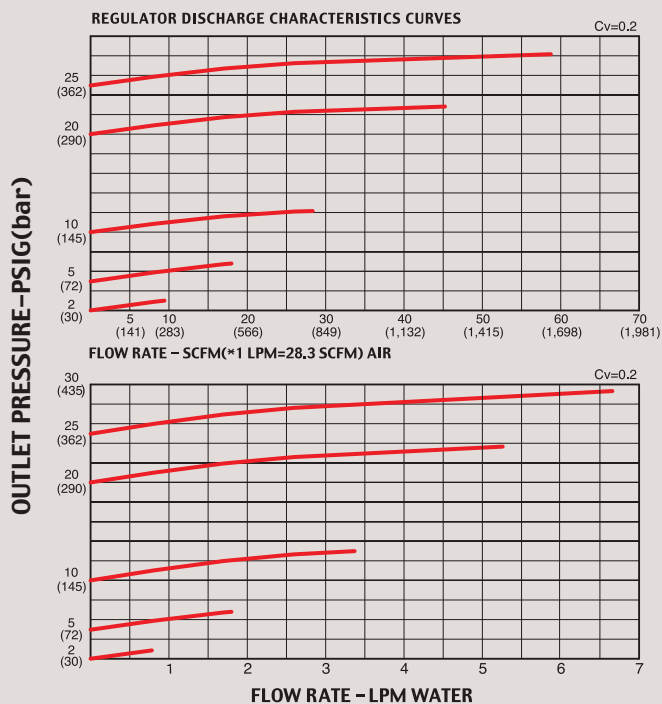
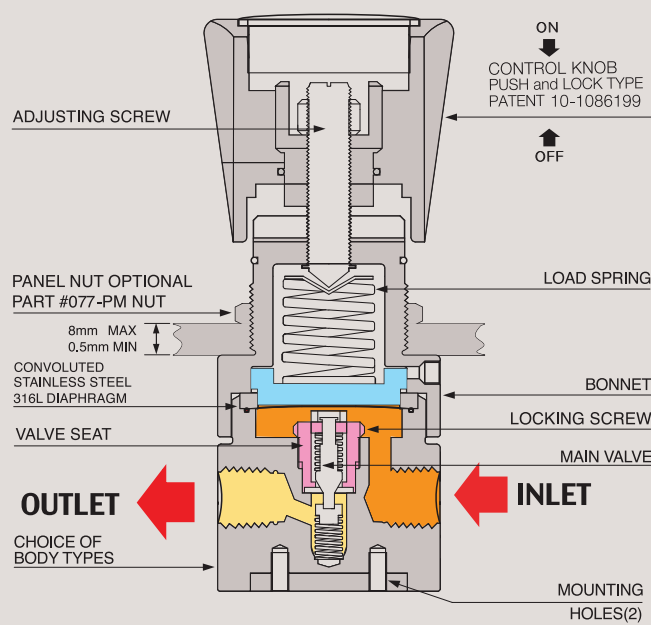
# 077 SERIES

Relief / Backpressure Reducing Regulators



### FUNCTIONAL SCHEMATIC

### FLOW CHART



## 077 Backpressure Low Pressure Relief / Backpressure NPT

### Specifications

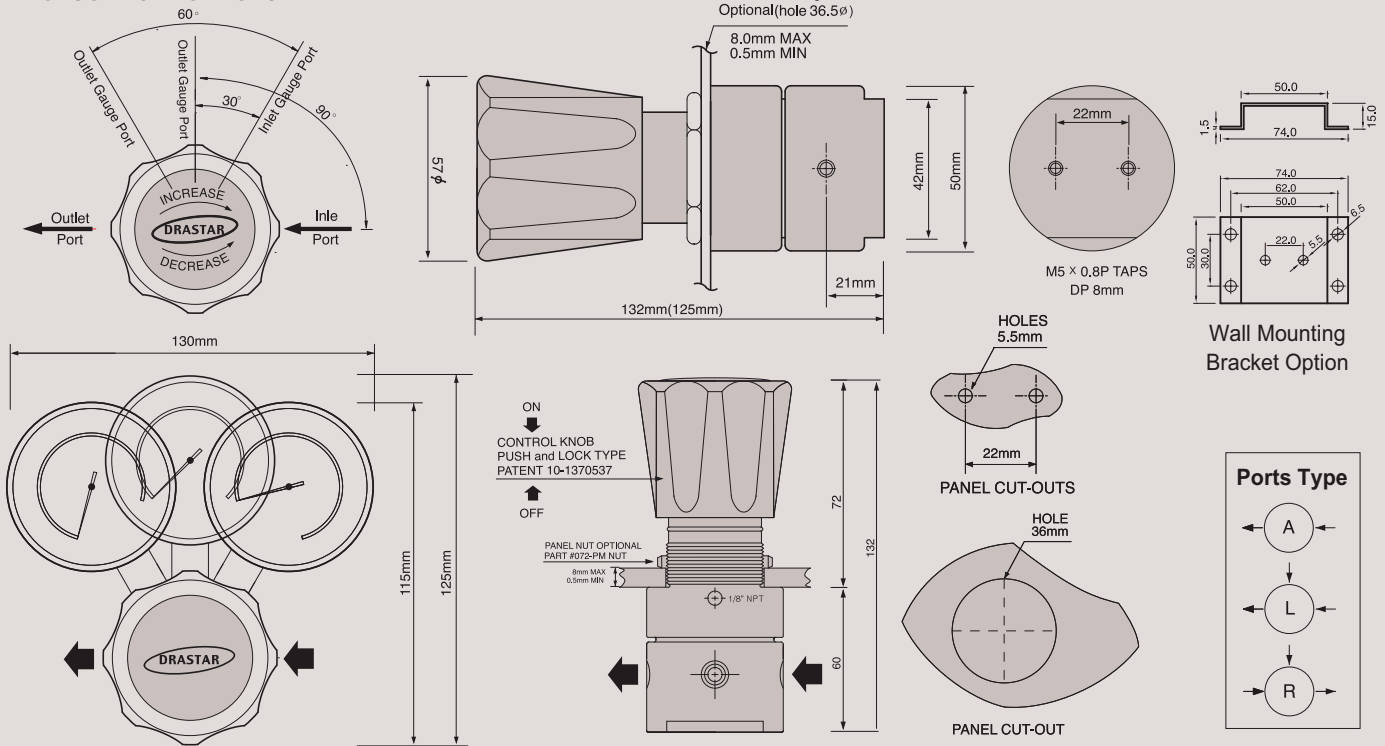
In/Outlet Port Size	1/4" FNPT / Gauge port: 1/4" NPT
Body	Stainless Steel 316L
Bonnet	Nickel Plated Brass (Standard) / Stainless Steel (Option)
Diaphragm	Stainless Steel 316L / Hastelloy C (Option)
Main Valve	Stainless Steel 316L
Valve Spring	Stainless Steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.: optional)
Controlled Pressure Range	2bar(30psig), 5bar(72psig), 10bar(145psig), 20bar(290psig)
Design Proof Pressure	150% of maximum rated
Leakage	to $2 \times 10^{-8}$ atmcc/sec Helium available
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

※ **Caution:** Filtering (gas  $7\mu\text{m}$ ~ $15\mu\text{m}$ , water  $15\mu\text{m}$ ~ $80\mu\text{m}$ ) 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.

## 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.

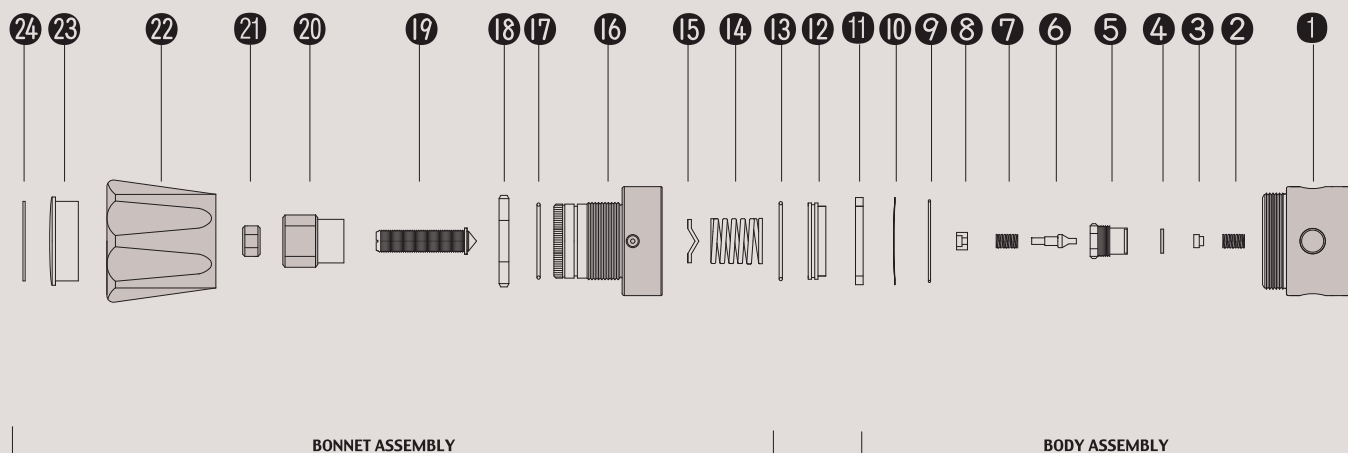
### ORDERING INFORMATION

(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