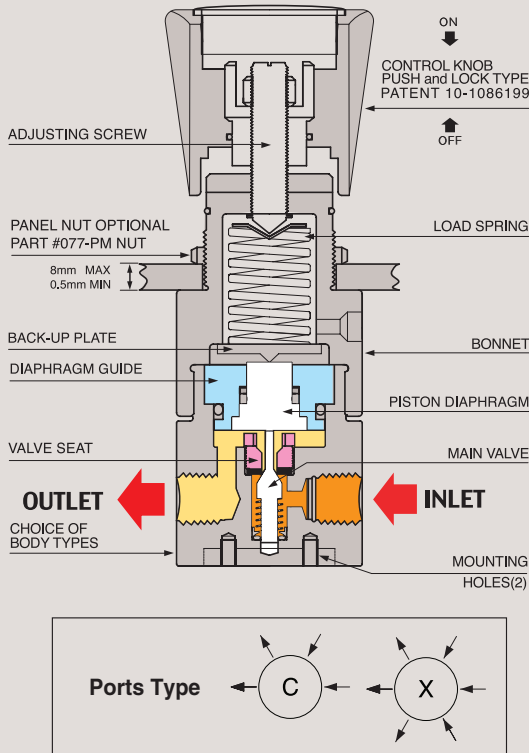


# 082 SERIES

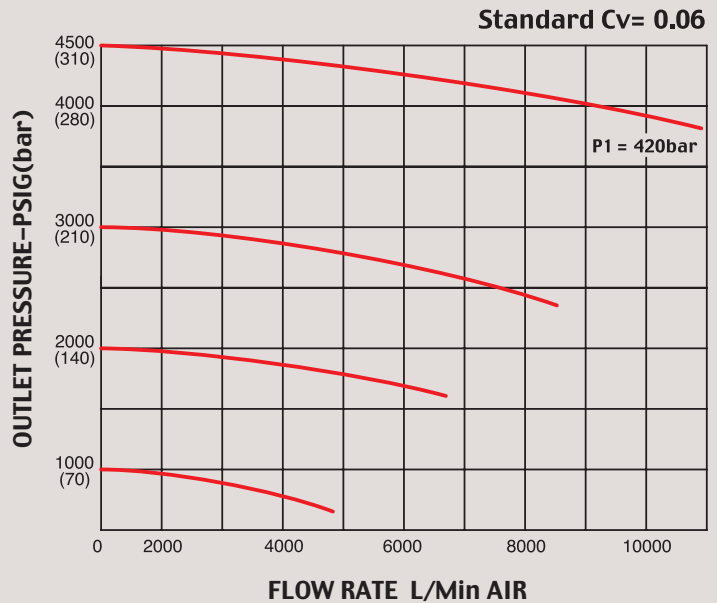
HIGH PRESSURE NPT TYPE



## FUNCTIONAL SCHEMATIC



## FLOW CHART



## High Pressure NPT type (1/4")

082시리즈는 가스실린더 및 모든 고압가스를 안전하고 편리하게 사용할 수 있도록 개발된 고압가스 전용 레귤레이터 시리즈입니다.

- 당사가 독자 개발한 Piston-Diaphragm 방식을 채택하여 고압가스를 더욱 더 안전하고 편리하게 사용할 수 있습니다.
- 본체와 내부의 모든 부품이 Stainless Steel 316L로 이루어진 082S 모델은 각종 고순도 가스, 부식성 가스, 제약 및 실험실, 연구소 등에 폭 넓게 사용되며, 가스 및 액체 등에서 안심하고 사용할 수 있습니다.
- 입구 압력은 6000psig(420bar)이고 출구 압력은 최저 70psi(5bar) 부터 최대 4500psi(310bar)까지 사용 할 수 있는 NPT 1/4" type 4-Ports 전용 Regulator 입니다.
- 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.

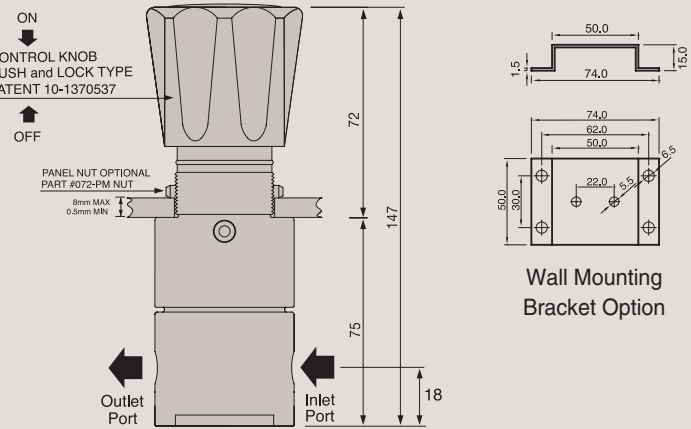
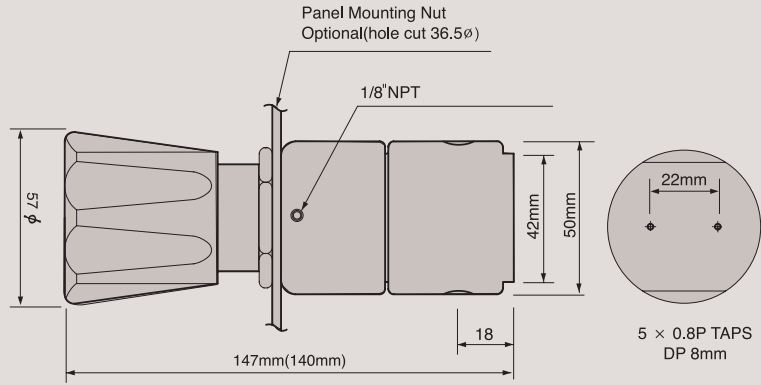
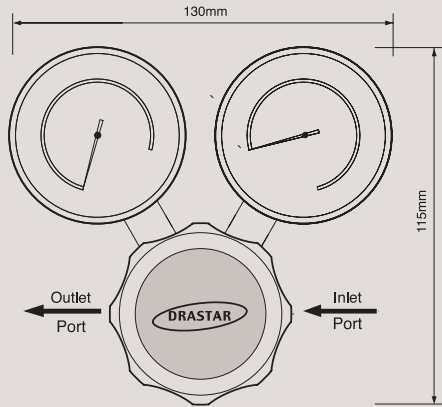
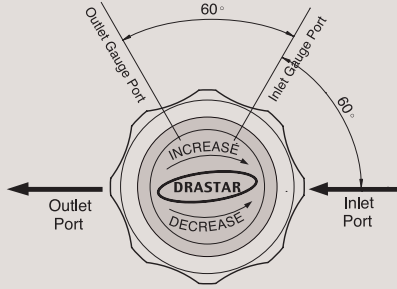
\* 주의 : 크린라인이 아닌 일반 라인에 사용 할 경우 반드시 필터링(gas 7 $\mu$ m~15 $\mu$ m, water 15 $\mu$ m~80 $\mu$ m)을 하여야 하며, 그렇지 않을 경우 바로 고장의 원인이 됩니다. 모든 제품은 필터링하여 사용하면 A/S 비용 절감과 제품의 수명연장에 많은 도움이 됩니다.

## SPECIFICATIONS

|                         |  |
|-------------------------|--|
| Ports                   | 1/4" 4-ports NPT type  |
| Leak Rate Certification | to 2x10 <sup>-6</sup> atm cc/sec Helium available.   |
| Body Materials          | 082S-0000-1S / Stainless steel 316L<br>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)<br>082S-0000-1S-H1, +120° C (Optional)<br>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..  |

**INSTALLATION DIMENSIONS**  
METRIC EQUIVALENTS ARE IN PARENTHESES

■ GAUGE PORT OPTIONS



**082 Series is a 1/4" NPT type single-stage high pressure reducing regulator designed to use for gas cylinder and all high pressure gases more easily and safely with "Piston-Diaphragm" which Drastar specially developed.**

With DRASTAR' s patented (patent #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 high pressure regulator
  - Drastar' s specially developed "piston-diaphragm" mounted
  - Inlet pressure is 6000psi(420bar) and outlet pressures are 1000psig (70 bar) ~ 4500psig(310bar)
  - Panel mounting nut or wall mounting bracket available as option • Design proof pressure: 150% of maximum rated
  - Applicable for gas and liquid in the field of various high purity gases, corrosive gases, pharmaceutical line, research labs, etc. (082S model made of stainless steel 316L for its internals and body)
- ※ 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.
- ※ **Caution:** Filtering (gas 7 μm~15 μm, water 15 μm~80 μm) 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

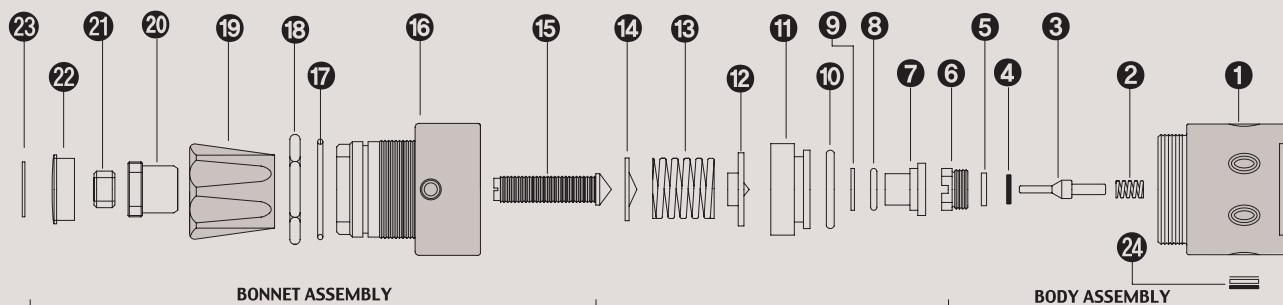
**ORDERING INFORMATION**

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

| BASIS SERIES NUMBER                        | BODY MATERIAL                         | OUTLET PRESSURE RANGE  | FLOW CAPACITY   | DIAPHRAGM MATERIAL                               | SELF VENTING                 | HIGH TEMPERATURE                                      |
|--|---------------------------------------|--|---|--|------------------------------|---|
| Standard Inlet Pressure 6000psig (420 bar) | B = Brass<br>S = Stainless Steel 316L | 1000 = 10-1000psi (7-70bar)<br>2000 = 20-2000psi (15-140bar)<br>3000 = 30-3000psi (20-210bar)<br>4500 = 30-4500psi (30-310bar) | 1 = 1/4" Female NPT<br>1S = Cv 0.06 Standard<br>1O = Cv 0.2<br>Optional | STS 316L Standard<br>H = Hastelloy-C<br>Optional | V = Self-Venting<br>Optional | H1 = 120° C<br>H2 = 250° C<br>H3 = 350° C<br>Optional |

※ Note : 1) Outlet pressure 4500 model is not available with self-venting(V) 2) H1, H2, H3 option is not available for brass products.

## 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       | Adjusting 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  |