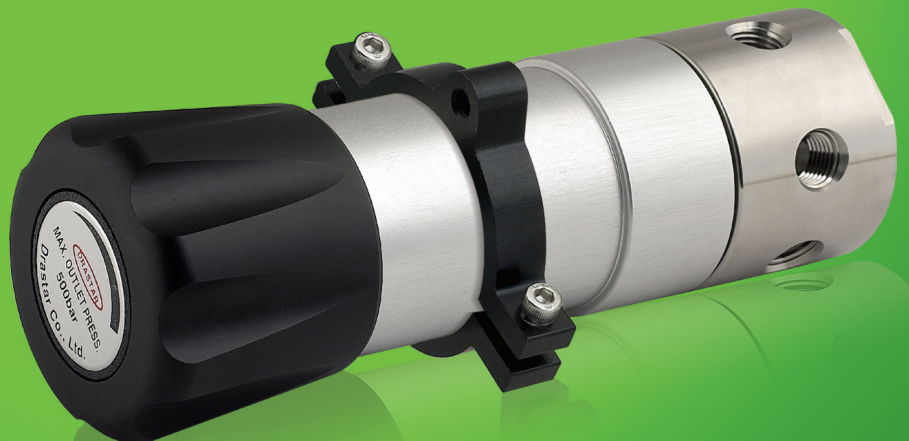


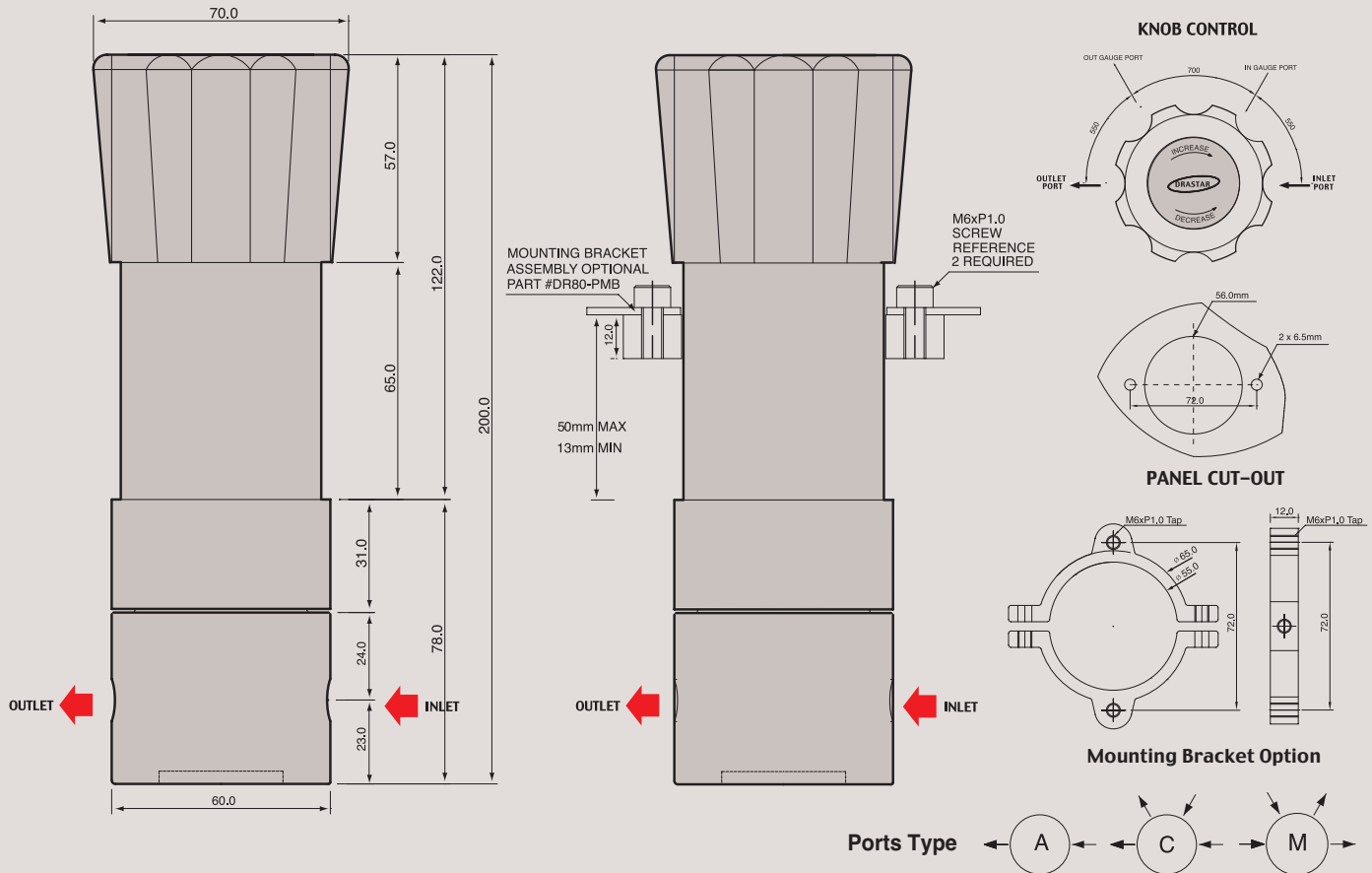


# DR80 S E R I E S

High Pressure Reducing Regulators



### INSTALLATION DIMENSIONS



### DR80 High Pressure, Single-Stage NPT type 1/4", 1/2"

드라스타가 독자 개발한 피스톤 다이아후럼 타입으로 초 고압의 가스 및 액체에 적합

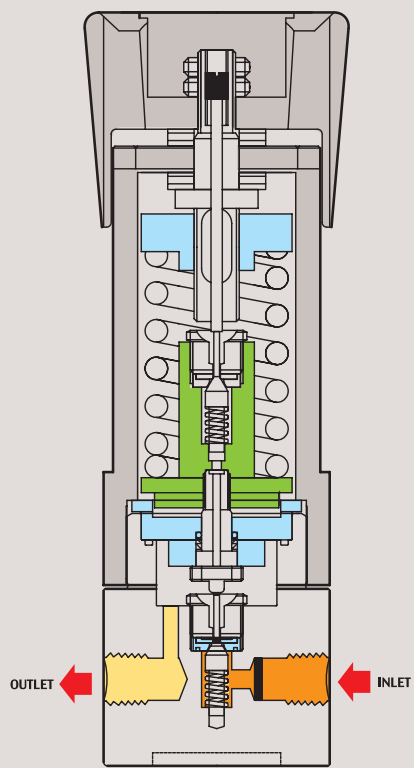
- 316L Stainless Steel Body
- 본체와 부품이 316L SS 구성되어 부식성 가스 및 액체 등에서도 안심하고 사용 가능.
- 입구압력과 조절압력을 최대 700bar(10,150psi)까지 사용 가능한 초 고압용 제품임.
- 전 부품은 CGA4.1 and ASTM G93 규정에 따라 세척하여 O<sup>2</sup> 사용 가능한 Oil free 제품임.
- 클린라인 외의 경우 고장방지 및 수명 연장을 위해 별도의 필터사용 필수 권장.(gas 7 $\mu$ m~15 $\mu$ m, water 15 $\mu$ m~80 $\mu$ m)

### Specifications

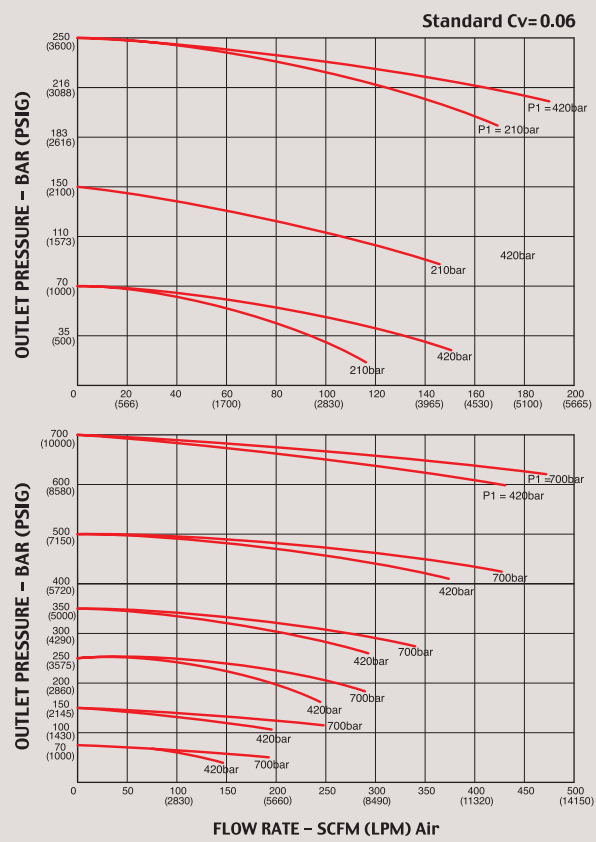
|                          |                                                                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Inlet & Outlet Ports     | 1/4"NPTF, 1/2"NPTF / Gauge port: 1/4" NPTF                                                                                            |
| Body                     | 316L Stainless Steel                                                                                                                  |
| Bonnet                   | Aluminum #2024                                                                                                                        |
| Diaphragm                | 316L Stainless Steel                                                                                                                  |
| Main Valve               | 316L Stainless Steel                                                                                                                  |
| Valve Spring             | 316L Stainless Steel (standard) / Hastelloy C-22 (option)                                                                             |
| Valve Seat               | VespeI (standard) / PEEK (option)                                                                                                     |
| Maximum Inlet Pressure   | DR80-AS-xxxA-1 : 414bar (6,000psi)<br>DR80-BS-xxxA-1 : 700bar (10,150psi)                                                             |
| Outlet Pressure/bar(psi) | 70 (1,015), 150 (2,175), 250 (3,625), 350 (5,075), 500 (7,250), 700 (10,150)                                                          |
| Design Proof Pressure    | 150% of rated capacity                                                                                                                |
| Leakage                  | Internal: Bubble-tight / External: $\leq 2 \times 10^{-8}$ atm cc/sec He                                                              |
| Operating Temperature    | -40°C to +70°C (-40°F to +160°F) (Standard)<br>H1 : up to +120°C (option)<br>H2 : up to +250°C (option)<br>H3 : up to +320°C (option) |
| Flow Capacity (Cv)       | 0.06 (standard) / 0.2 (option)                                                                                                        |
| Other Options            | Pressure gauge, CGA, Wall Mounting Bracket                                                                                            |
| Net Weight (excl. gauge) | Approximately 2.4kgs                                                                                                                  |



## FUNCTIONAL SCHEMATIC



## FLOW CHART



## DR80 High Pressure, Single-Stage NPT type 1/4", 1/2"

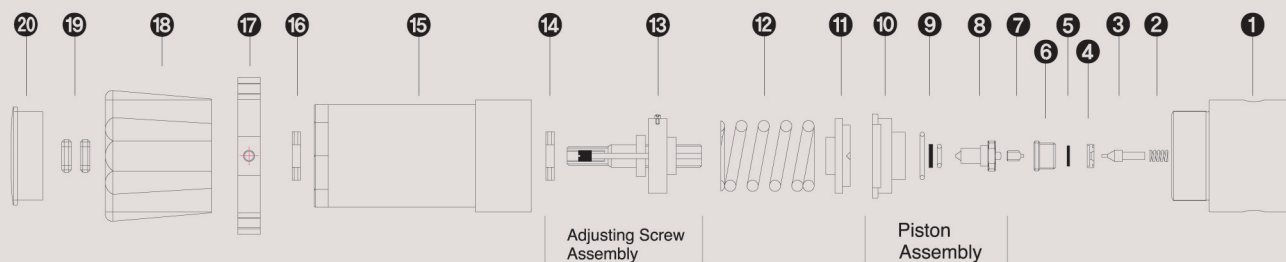
- Construction of 316L Stainless Steel Body & Piston Diaphragm
- Suitable for ultra high-pressure applications up to 700bar(10,150psi) for corrosive gases and liquids as well as general gas line
- Cleaning : CGA 4.1. and ASTM G-93 for O<sup>2</sup> service / Oil-free
- Except for high purity gas lines, separate filtering is MUST (gas 7<sub>μm</sub>~15<sub>μm</sub> water 15<sub>μm</sub>~80<sub>μm</sub>) for long life and failure prevention

## Ordering Information

| DR80 - A S - 070 A - 1S - H1 |                                                         |               |                                                                                                                |                                        |                                                                                        |                                                  |                                                       |
|------------------------------|---------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------|-------------------------------------------------------|
| Basic Series                 | Inlet Pressure                                          | Body Material | Outlet Pressure Range(bar/psi)                                                                                 | Port Type                              | Inlet & Outlet Ports Size & Cv                                                         | Self-venting                                     | High Temperature                                      |
| DR80<br>1/4"NPTF<br>1/2"NPTF | A= 414bar<br>(6,000psi)<br><br>B= 700bar<br>(10,150psi) | S = 316L SS   | 070 = 70/1,015<br>150 = 150/2,175<br>250 = 250/3,625<br>350 = 350/5,075<br>500 = 500/7,250<br>700 = 700/10,150 | A = 2ports<br>C = 4ports<br>M = 4ports | 1S=1/4" 0.06<br>2S=1/2" 0.06<br>Standard<br><br>1O=1/4" 0.2<br>2O=1/2" 0.2<br>Optional | -Non-venting<br><br>V = Self-venting<br>Optional | H1 = 120° C<br>H2 = 250° C<br>H3 = 320° C<br>Optional |

Note:1) Push and lock handle is NOT compatible with DR80 series / DR80 시리즈는 푸시 & 락 핸들 적용 불가.

### DR80 SERIES PART LIST



#### Series Part List (Standard Model)

| Item No | Part Name                | Part No. & Description                                                                            |
|---------|--------------------------|---------------------------------------------------------------------------------------------------|
| 01      | Body                     | DR80-01-01: 316L SS                                                                               |
| 02      | Valve Spring             | DR80-02-01: 316L SS (standard) / 02-02: Hastelloy C-22 (option)                                   |
| 03      | Main Valve               | DR80-03-01: 316L SS (standard)                                                                    |
| 04      | Seat Cartridge           | DR80-04-01: 316L SS                                                                               |
| 05      | Valve Seat               | DR80-05-01: Vespel (standard) / 05-02: PEEK (option)                                              |
| 06      | Locking Screw            | DR80-06-01: 316L SS                                                                               |
| 07      | Main Valve Guide Pin     | DR80-07-01: 316L SS                                                                               |
| 08      | Piston                   | DR80-08-01: 70bar~250bar / 08-02: 350bar~700bar *316L SS                                          |
| 09      | Piston O-ring Assembly   | DR80-09-01: 70bar~250bar / 09-02: 350bar~700bar *316L SS                                          |
| 10      | Piston Diaphragm         | DR80-10-01: common                                                                                |
| 11      | Spring Plate             | DR80-11-01: common                                                                                |
| 12      | Load Spring              | DR80-12-01: 70bar / 12-02: 150bar / 12-03: 250bar / 12-04: 350bar / 12-05: 500bar / 12-06: 700bar |
| 13      | Adjusting Screw Assembly | DR80-13-01: common                                                                                |
| 14      | Thrust Needle Bearing    | DR80-14-01: common #1226                                                                          |
| 15      | Bonnet                   | DR80-15-01: AL2024                                                                                |
| 16      | Thrust Needle Bearing    | DR80-16-01: common #1226                                                                          |
| 17      | Panel Mounting Bracket   | DR80-17-01: Option                                                                                |
| 18      | Control Knob             | DR80-18-01: common                                                                                |
| 19      | Locking Nut              | DR80-19-01: common                                                                                |
| 20      | Name Cap                 | DR80-20-01: 70bar / 20-02: 150bar / 20-03: 250bar / 20-04: 350bar / 20-05: 500bar / 20-06: 700bar |

※ Parts for self-venting model and H1, H2, H3 options: please contact [www.drastar.com](http://www.drastar.com)  
(self-venting 모델 및 고온용 모델은 별도 문의: [www.drastar.com](http://www.drastar.com))