

DRA 100 S E R I E S

ULTRA-HIGH PURITY
Pressure Reducing Regulator

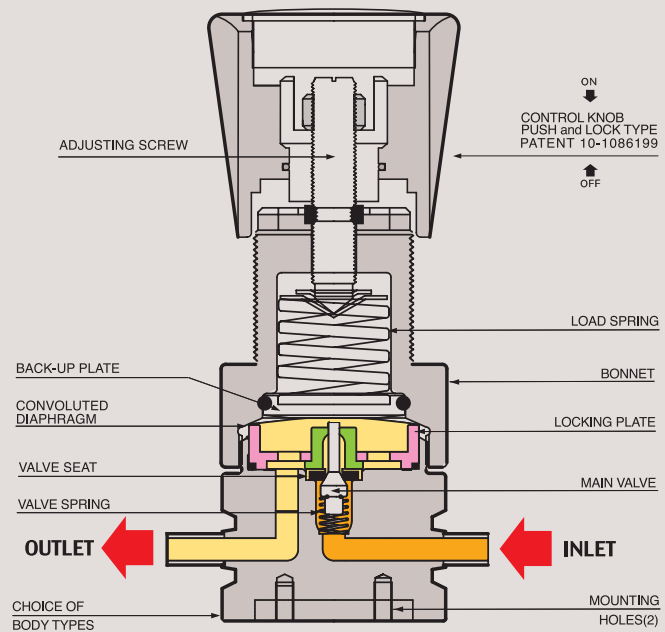




DRA100 SERIES



FUNCTIONAL SCHEMATIC



ULTRA-HIGH PURITY / PRESSURE REDUCING REGULATOR

DRA100 SERIES (VCR Type Regulator)

DRA100 시리즈는 초고순도 반도체 제조용 특수 가스 라인, Bulk Gas Line, 기타 설비 라인 등에 사용하도록 고안된 Pressure Reducing Regulator입니다. 반도체 생산 hook-up 라인 등에 사용되도록 내부 표면은 B. A. 급에서 E. P. 10 Ra, 5 Ra 급까지 처리하였습니다. DRASTAR만의 Locking-Plate Seal 방식을 개발하여 특허 출원을 하였으며, 특허(10-0753280) 출원한 Locking-Plate 방식이 적용된 제품입니다. DRA100 시리즈는 조립, 용접, 실험과 세정까지의 모든 공정은 100-class와 10-class 크린룸에서 모든 작업이 이루어집니다. 모든 DRASTAR Regulators는 외부적인 진동과 가스배관 라인의 미세 진동 등으로 인하여 초기 셋팅 값이 스스로 변하는 현상을 완전히 해결한 드라스타만의 Push and Lock 타입의 조절 손잡이를 적용하여 사용하기에 더욱 편리합니다. 조절 손잡이를 누르면 셋팅값이 변하는 것을 방지하며, 손잡이를 앞으로 당기면 자유롭게 원하는 압력으로 다시 셋팅 할 수 있는 드라스타만의 특허 10-1086199 Push and Lock 타입의 레귤레이터입니다.

DRA 100 Series is the pressure reducing regulator designed to use at the special manufacturing line of ultra-high pure semi-conductors, bulk gas lines, and other facility lines. In order to use at the semi-conductor hook-up line, etc., regulator's internal surface is treated to the level of E.P. 10Ra, 5Ra under B. A. grade. A special locking-plate system which DRASTAR has developed and applied for patent (patent no. 10-0753280) is used for the regulator. All the process assembly, welding, testing and washing of this DRA 100 series is carried out and thoroughly managed in the 100-class and 10-class clean room. DRASTAR regulators are designed and manufactured for easier operation by equipping with the DRASTAR's own

developed push and lock type handle which completely prevents the self-change of pre-set value which can be caused by the vibration from outside or minute vibration at the gas pipeline. You can prevent the self-changing of pre-set value just by pushing the handle and reset the value freely by drawing the handle. DRASTAR has created and applied patent for this push and lock system for DRASTAR regulators (patent number 10-1086199).

Features

- VCR Type Regulator
- available for semiconductor applications
- Internal surfaces B. A. grade to E. P. 10 Ra, 5 Ra
- All performed in class 100 and class 10 clean-rooms
- Threadless type
- Locking-Plate Seal system (Patent No : 10-0753280)

권장 사항

각 제품들은 최고의 안전성과 쉬운 조작성을 고려하여 제작되었습니다. 그러나 가장 안전하고 효율적인 Regulator 사용을 위해서는 실제 사용 압력을 각각 모델의 사용 압력에 25%~75% 이내에서 사용하면 가장 이상적인 압력을 사용할 수 있습니다. 정밀하고 원활한 동작과 제품의 수명 연장을 위해서는 위의 범위 내에서 사용하기를 적극 권장합니다.

Recommendations

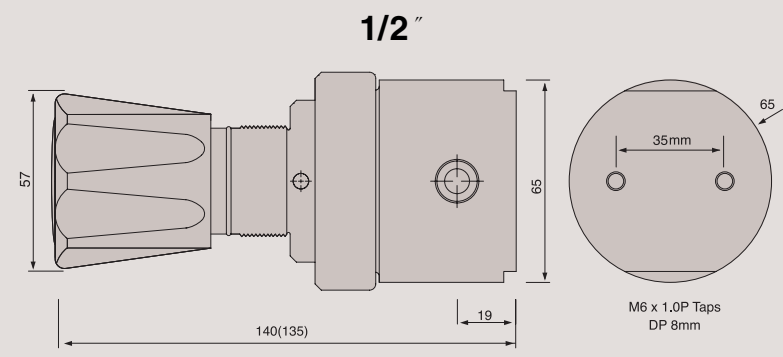
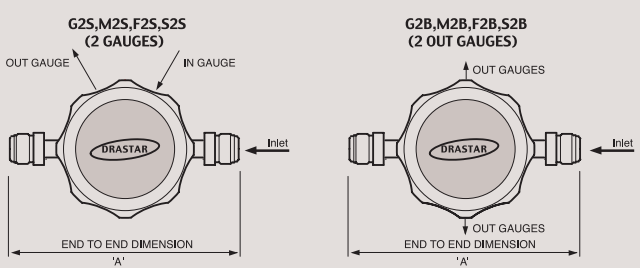
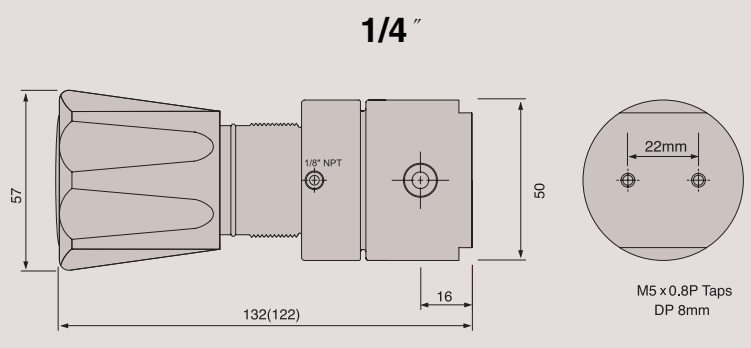
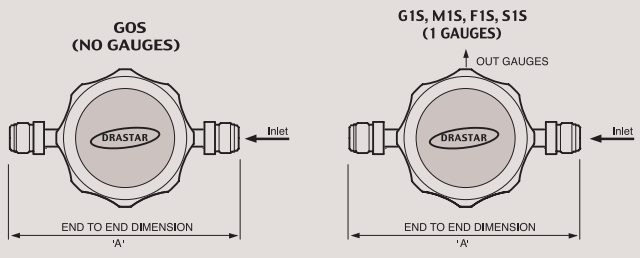
Each product is manufactured since being taken into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe and effective way, you are recommended to use the actual pressure within the range of its 25% ~ 75%. For making precise, smooth movement and to prolong product life, strongly recommended to make a use within above mentioned range.

REFERENCE

This catalogue is printed as of January 2016, and the dimensions and/or specifications in this catalogue can be changed without prior notice in the course of constant upgrading and improvement of our products.

INSTALLATION DIMENSIONS
METRIC EQUIVALENTS ARE IN PARENTHESES

GAUGE PORT OPTIONS



ORDERING INFORMATION

DRA100 - A 025 S - H P S - 4MS - GOS

BASIS SERIES

BODY MATERIAL

A = 316L Bright Annealed	B.A
B = 316L Electropolish	10Ra
C = 316L Internal Electropolish	10Ra
D = 316L Electropolish VAR(P.E.P)	10Ra
E = 316L Electropolish VAR(P.E.P)	5Ra

OUTLET PRESSURE RANGE

025 = 1-25psi (.1-1.7bar)
050 = 1-50psi (.1-3.5bar)
100 = 1-100psi (.1-7bar)
250 = 1-250psi (.2-17bar)

DIAPHRAGM MATERIAL

S = STS 316L
H = Hastelloy-C

MAX. INLET PRESSURE

H = 3500psi(238bar)
L = 600psi(41bar)

SEAT MATERIAL

P = PCTFE
T = Teflon
V = Vespel

GAUGE PORTS OPTIONS

GOS = None	0	F1S = 1/4" Female Sw.	1
G1S = 1/4" H.P.I.C	1	F2S = 1/4" Female Sw.	2
G2S = 1/4" H.P.I.C	2	F2B = 1/4" Female Sw.	2
G2B = 1/4" H.P.I.C	2	S1S = 1/4" Fixed Male	1
M1S = 1/4" Male Sw.	1	S2S = 1/4" Fixed Male	2
M2S = 1/4" Male Sw.	2	S2B = 1/4" Fixed Male	2
M2B = 1/4" Male Sw.	2		

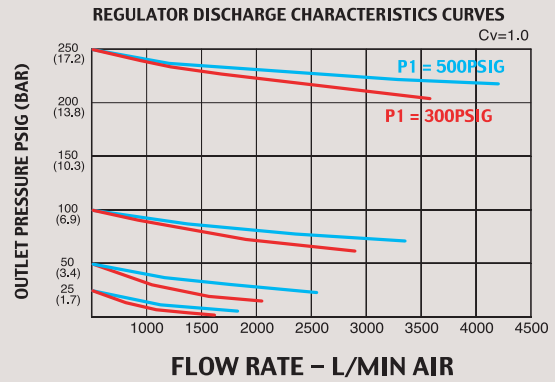
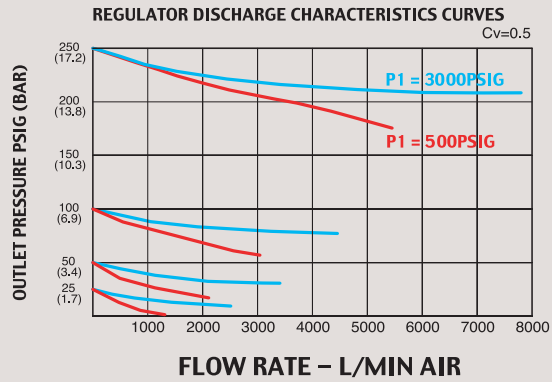
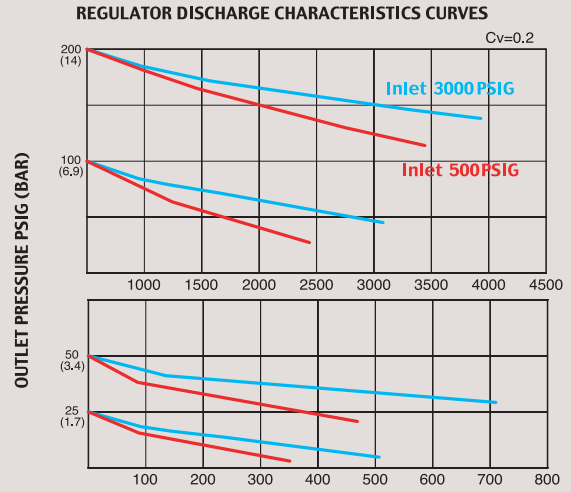
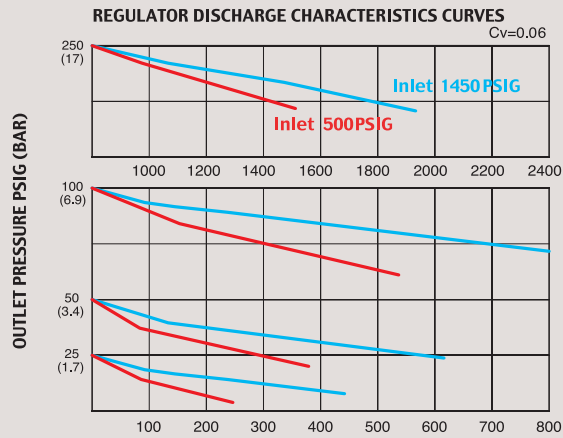
INLET / OUTLET PORTS SIZE Type "A" ±1.0mm

4HP = 1/4" H.P.I.C	
4MS & 4FS = 1/4" Male, Female Sw.	94mm
4FL & 4ML = 1/4" Male, Female Sw.	00mm
8MS & 8FS = 3/8" Male, Female Sw.	120mm
8FL & 8ML = 3/8" Male, Female Sw.	000mm
2MS & 2FS = 1/2" Male, Female Sw.	140mm
2FL & 2ML = 1/2" Male, Female Sw.	000mm
3MS & 3FS = 3/4" Male, Female Sw.	160mm
3FL & 3ML = 3/4" Male, Female Sw.	000mm
4IMF = In 1/4" Male Out 1/4" Female	94mm
4IFM = In 1/4" Female Out 1/4" Male	94mm
2IMF = In 1/2" Male Out 1/2" Female	140mm
2IFM = In 1/2" Female Out 1/2" Male	140mm
2IMFL = In 1/2" Male Out 1/2" Female	000mm
2IFML = In 1/2" Female Out 1/2" Male	000mm
4TS = 1/4" Tube Stubs	94mm
8TS = 3/8" Tube Stubs	94mm
2TS = 1/2" Tube Stubs	120mm
3TS = 3/4" Tube Stubs	120mm

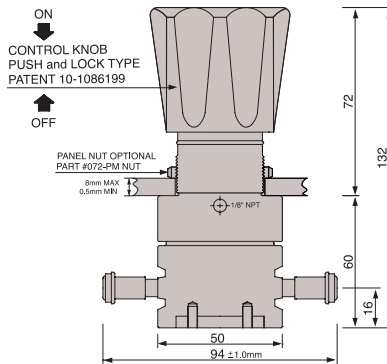
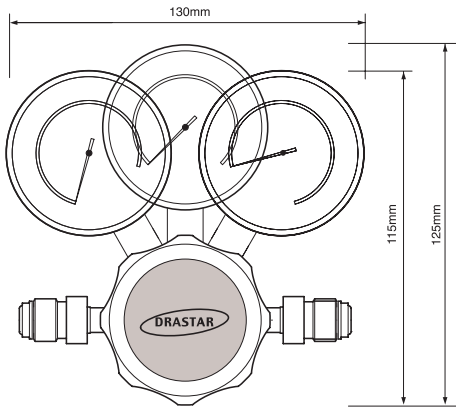
FLOW CAPACITY

S = Cv 0.06 Standard (Inlet 3000psi) (1/4")
O = Cv 0.2 Optional (Inlet 500psi) (1/4")
Cv 0.2 Standard (3/8")
S = Cv 0.5 Standard (1/2")
O = Cv 1.0 Optional
S = Cv 1.2 Standard (3/4")

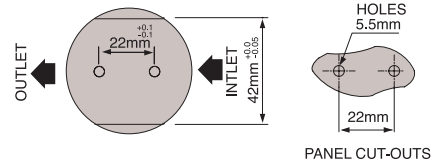
FLOW CHART



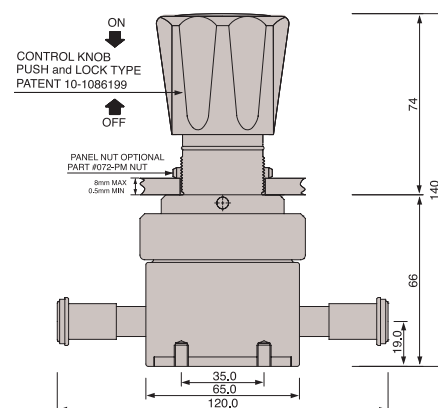
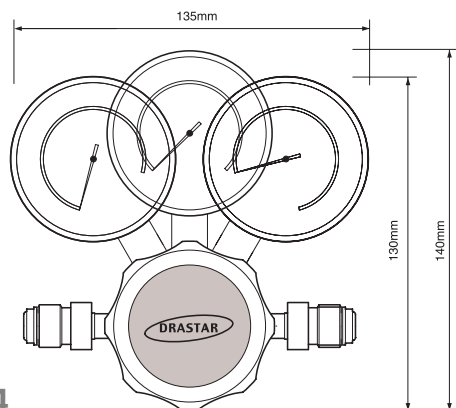
DRA100 Series 1/4"



DRA100 Series 1/4" & 3/8"



DRA100 Series 1/2"



DRA100 Series 1/2" & 4/3"

