

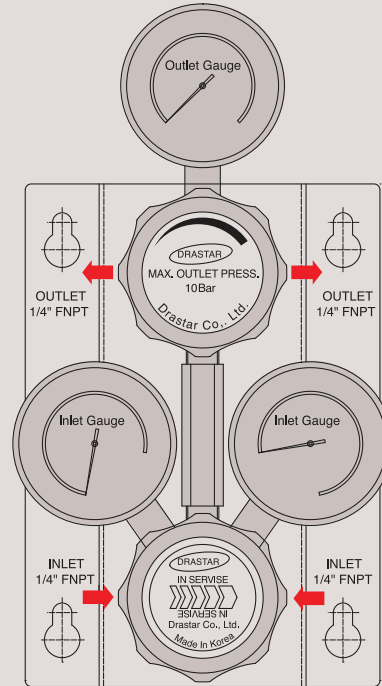


AC700 S E R I E S

Automatic Changeover Regulator & System



FUNCTIONAL SCHEMATIC



Automatic Changeover Regulators and Systems

AC700시리즈는 좌/우 양측 실린더에 각각 연결하여 한쪽의 가스 잔량이 소진되면 다른 쪽 가스 실린더로 자동 전환되어 공급되는 방식의 “오토 체인지오버 시스템”으로서 병원, 제약, 학교, 실험실, 연구소 등 고압가스 실린더의 유체흐름 공급을 중단 없이 지속적으로, 그리고 보다 더 편리하고 안정적으로 사용할 수 있도록 고안된 제품입니다.

본 시스템은 Changeover와 레귤레이터가 1세트로 구성되며 기본 Wall Mounting(벽 장착형)입니다. 본체 및 내부의 모든 부품은 Stainless Steel 316L (AC700S)과 Brass (AC700B)중 선택 가능하며, 실린더 가스, Bulk Gas Line, 실험실, 분석용 특수 가스, 또는 고순도 가스, 믹싱용 가스, 그리고 각종 부식성 가스등에서 모두 사용할 수 있도록 제작 설계되었습니다. 사용 압력은 입구압력 250bar (3600psig)이며 출구압력은 최대 20bar (290bar)까지 사용하기에 적합한 제품입니다.

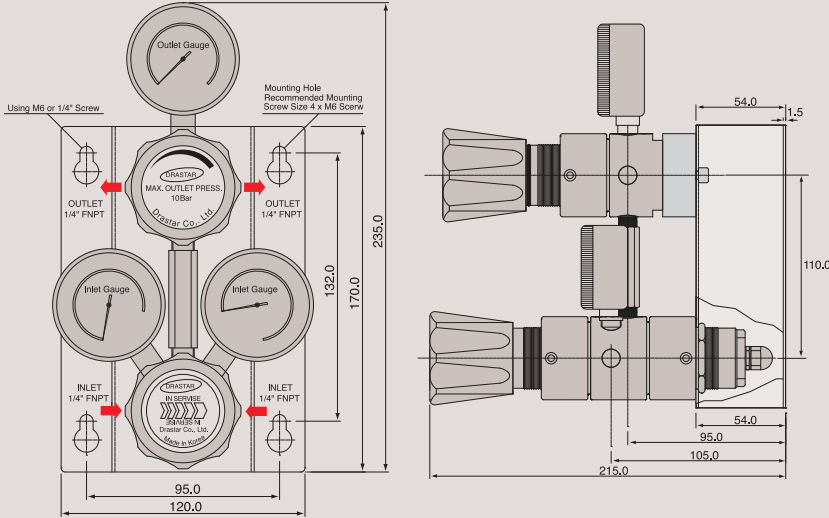
AC700 Series is DRASTAR' s Automatic Changeover Regulator and System to provide high flow gases from both cylinder or supply lines continuously and stably in the fields of hospital, pharmaceutical line, research labs, etc.

The system is a wall mounting type (standard) constructed of changeover system and regulator. With inlet pressure of 250bar(3,600psig) and outlet pressure up to 290psig (20bar), AC 700 series is extensively applicable for cylinder gas, bulk gas line, lab, specialty gas for analysis application, high purity gases, mixing gas, and corrosive gases, etc.

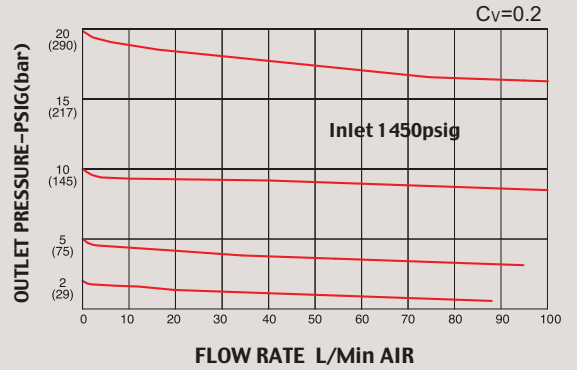
사용방법 및 유의사항

1. 초기 사용시는 손잡이 화살표가 셋팅된 실린더(공급원)로부터 가스가 공급됩니다.
2. 1차 실린더의 가스가 소진 (또는 일정압력 이하로 떨어지면) AC시스템이 가스공급 실린더를 자동으로 변경합니다 (※ 이때 손잡이 화살표는 자동변환이 안되며 변환된 실린더 방향으로 수동 변환이 가능합니다).
3. 위 2와 같이 가스공급 실린더가 자동 변환되었으나 손잡이 화살표 방향을 변환된 실린더 방향으로 맞춰놓지 않은 상태에서 소진된 1차 가스 실린더를 새것으로 교체할 경우 AC 시스템은 화살표 방향의 1차 실린더로 가스공급 경로를 원위치 합니다.
4. 1차 & 2차 실린더의 가스가 동시에 소진된 상태 (또는 동시에 일정 압력 이하로 떨어진 상태)로 둘 경우, 양쪽에서 동시에 가스가 흘러나올 가능성이 있으므로 소진된 가스실린더는 반드시 새것으로 교체 사용할 것을 권장합니다.
5. 소진된 가스 실린더 교체 시 역류를 방지하기 위해 AC 시스템과 가스 실린더 사이에 반드시 체크밸브를 설치하여 사용할 것을 권장합니다.

INSTALLATION DIMENSIONS



FLOW CHART



How-to-use and matters to note

- Connect the gas cylinders both to the left and right connection holes of the system.
 - ※ To prevent back flow, check valve in between the gas cylinder and AC system MUST be installed.
- Choose the cylinder (left or right) to use the gas first and set the knob to that cylinder direction.
- If gas from the first cylinder (A) is consumed or the pressure drops below the working level, the system automatically changes the gas supply cylinder from (A) to the secondary cylinder (B).
 - ※ The knob does NOT turn automatically but can be turned manually to the cylinder which currently supplies the gas.
 - ※ If the first consumed gas cylinder (A) is replaced with new one while the media is still flowing from cylinder B and the arrow is indicating (A) cylinder as it was not set manually to the secondary cylinder, then cylinder A will supply the gas again in compliance with the knob's direction.
 - ※ Recommended NOT to leave both cylinders empty simultaneously to prevent from gas leakage.
- Automatic changeover will change the flow direction under following conditions; ± 2.0 bar
 - For outlet 2 bar and 5 bar products: if pressure is dropped below 10 bar
 - For outlet 10 bar product: if pressure is dropped below 15 bar
 - For outlet 20 bar and 25 bar products: if pressure is dropped below 25~30 bar

ORDERING INFORMATION

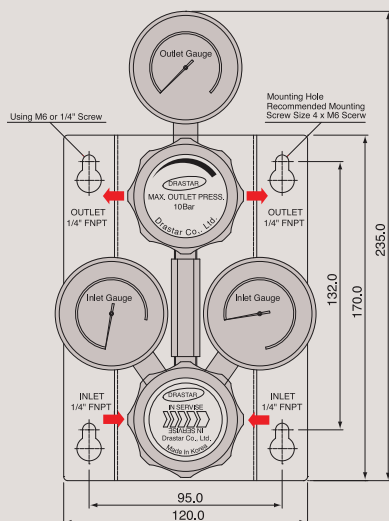
AC700 S - 002 - 1 S H

BASIS SERIES NUMBER	BODY MATERIAL	OUTLET PRESSURE RANGE	INLET AND OUTLET PORTS SIZE	FLOW CAPACITY	DIAPHRAGM MATERIAL
Standard Inlet Pressure 250bar (3600PSIG)	S = Stainless Steel 316L B = Brass	002 = .1-2bar (1-29PSIG) 005 = .1-5bar (1-75PSIG) 010 = .1-10bar (1-145PSIG) 020 = .1-20bar (1-290PSIG)	1 = 1/4" NPT	S = Cv 0.2 Standard	H = Hastelloy-C Optional

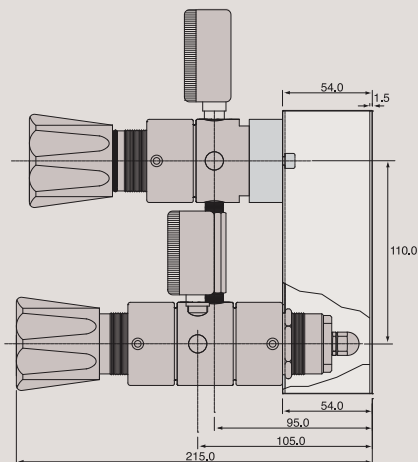
AC700

SERIES

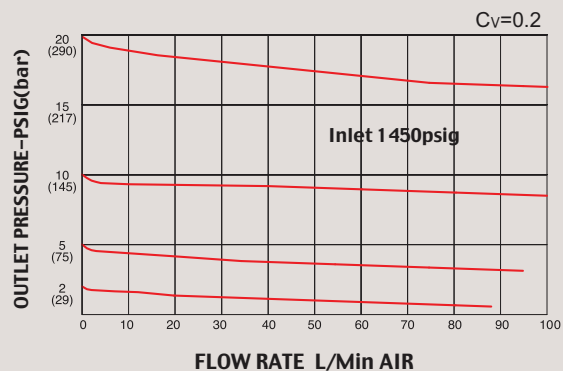
FUNCTIONAL SCHEMATIC



INSTALLATION DIMENSIONS



FLOW CHART

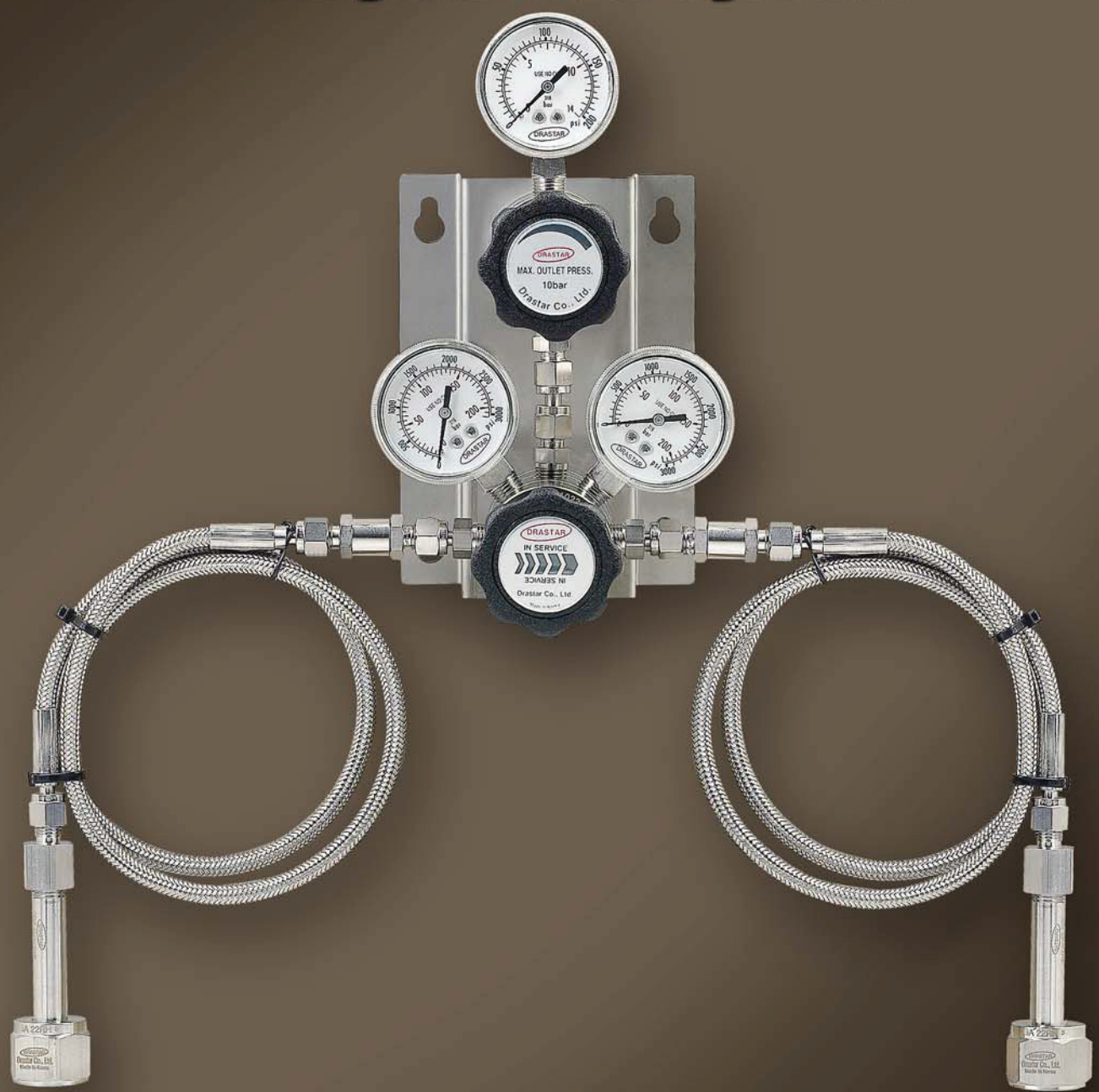


Specifications

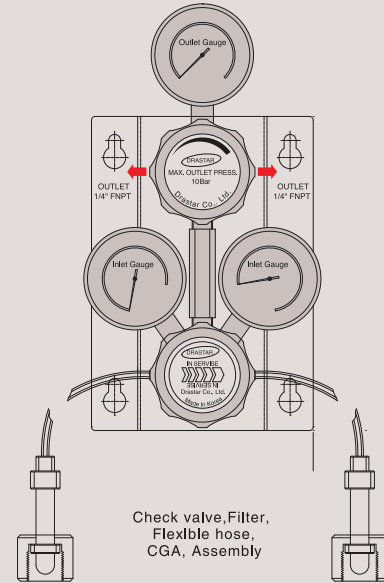
In/Outlet Port Size	1/4" FNPT / Gauge port: 1/4" NPT
Body	Stainless Steel 316L / Nickel Plated Brass
Bonnet	Nickel Plated Brass (Standard) / Stainless Steel (Option)
Diaphragm	Stainless Steel 316L / Hastelloy C (optional)
Main Valve	Stainless Steel 316L
Valve Spring	Stainless Steel 316L
Valve Seat	Teflon (Kel-F, Polyimide, etc.: optional)
Maximum Inlet Pressure	250bar (3600psig)
Outlet Pressure Range	2bar (29psig), 5bar (75psig), 10bar (145psig), 20bar(290psig)
Design Proof Pressure	150% of maximum rated
Leakage	to 2x10 ⁻⁸ atmcc/secHeliumavailable
Operating Temperature	-40°C to +70°C(-40°F to +160°F) (Standard)
Flow Capacity	Cv = 0.2
Weight	Approx. 3.3kgs



AC720 SERIES Automatic Changeover Regulator & System



FUNCTIONAL SCHEMATIC



Automatic Changeover Regulators and Systems

AC720시리즈는 좌/우의 양측 실린더에 각각 연결하여 한쪽의 가스 잔량이 소진되면 다른 쪽 가스 실린더로 자동 전환하여 중단 없이 지속적으로 가스(유체)를 공급하기 위한 오토 체인지오버 & 레귤레이터 시스템입니다.

- Stainless Steel 316L(AC702S)와 Brass Body (AC720B)중 선택 가능
- 최대 입구압력: 250bar (3600psig), 출구압력: 0.3bar ~ 최대 20bar (290bar)
- 병원, 제약, 학교, 연구소, 실험실 등에서 분석용 특수 가스, 또는 고순도 가스, 믹싱용 가스, 각종 부식성 가스 등을 일정시간 동안 중단 없이 지속적으로 사용하는데 적합함
- 필터, 체크밸브, 고압밸브(코어밸브 옵션) 및 고순도용 플렉시블 고압호스(STS PFA 1/4" 튜브엔드) 등을 모두 셋트로 구성하여 기존 오토체인지 오버에 비하여 사용의 편리성을 대폭 업그레이드 한 제품임.
- Wall Mounting브라켓 (벽 장착형)을 기본 사양으로 하여 더욱 편리하고 안정적으로 사용할 수 있도록 고안한 제품임.

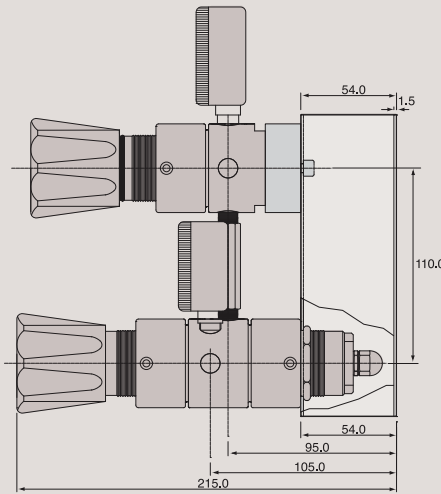
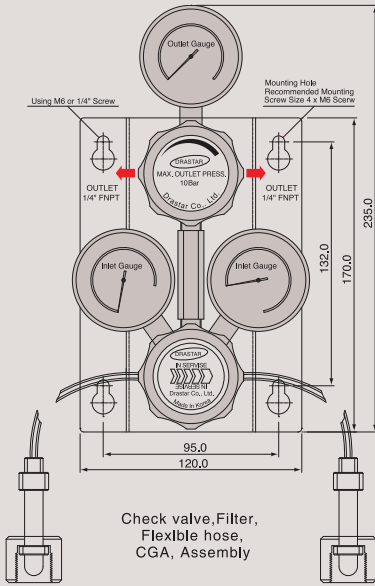
AC720 series is an Automatic Changeover Regulator and System to enable the gas supply continuously (without a break) and stably for some duration by connecting it to both cylinders and changing the gas supply cylinder automatically if the supply pressure of the 1st cylinder goes down to a marginal level.

- Stainless Steel 316L(AC702S) and Brass Body (AC720B) available
- Maximum inlet pressure: 250bar (3600psig), outlet pressure ranges: 0.3bar ~ max. 20bar (290bar)
- Applicable for hospital, pharmaceutical, school, research institute and lab., using special gases, high purity gas, gas for mixing, various corrosive gases, etc. to supply gas without a break for some duration.
- AC720 series, a highly upgraded version of AC700 series and composed of filter, check valve, high pressure valve (Core Valve/Optional) and flexible high pressure hoses for high purity gases (STS PFA 1/4" tube end) as a set offers much easier operation than AC700 series.
- Wall mounting type as standard will enable users much easier and safer installation and operation.

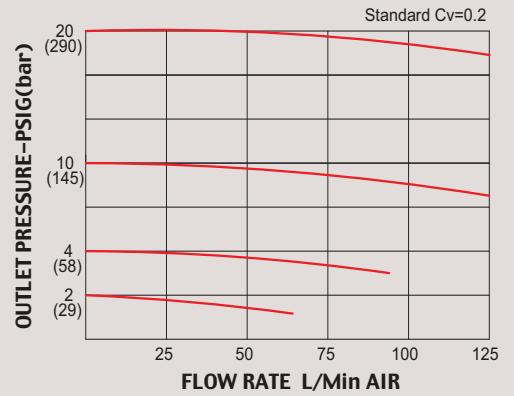
- ※ Automatic changeover will change the flow direction under following conditions; +/- 2.5bar
- For outlet 2bar and 5bar products : if pressure is dropped below 10bar
- For outlet 10bar product : if pressure is dropped below 15bar

FUNCTIONAL SCHEMATIC

INSTALLATION DIMENSIONS



FLOW CHART



• For outlet 20bar products : if pressure is dropped below 25~30 bar

All manufacturing processes such as cleaning, welding, assembly, testing, and packing of Drastar pressure regulators are performed in the class-100 and class-10 clean room.

※ [DRASTAR Regulators are Oil-free]

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

드라스타의 모든 레귤레이터는 클린 벤치, 헬륨디텍터, 파티클카운티, 초음파 세척기, 초 순수 시스템, 진공 포장기 등을 갖춘 클린룸(Clean Room)에서 CGA 4.1 및 ASTM G-93에 명시된 절차와 규정에 따라 조립, 세척, 검사 및 포장이 이루어지며 그리스 또는 오일 등 유분이 완전히 세정된 제품입니다.

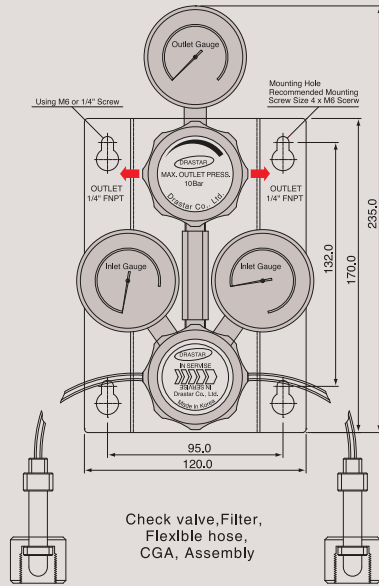
AC720 S - 002 - 1 S H 1 - 22R

BASIS SERIES	BODY MATERIAL	OUTLET PRESSURE RANGE	INLET HOSE SIZE	FLOW CAPACITY	DIAPHRAGM MATERIAL	HOSE SIZE (STS PFA)	A and B CGA CONNECTION
Inlet Pressure 250bar (3600psi)	S = STS 316L B = Brass	002 = .1-2bar(1-29psi) 004 = .1-5bar(1-72psi) 010 = .1-10bar(1-145psi) 020 = .2-20bar(10-290psi)	1 = 1/4" Tube end 8 = 3/8" Tube end 2 = 1/2" Tube end	S = Cv 0.2 Standard	H = Hastelloy-C	1 = 1M Flexible Hose 2 = 2M Flexible Hose 3 = 3M Flexible Hose	21R = 21mm RH 21L = 21mm LH 22R = 22mm RH 22L = 22mm LH 23R = 23mm RH 23L = 23mm LH 320 = CGA320 350 = CGA350 510 = CGA510 580 = CGA580

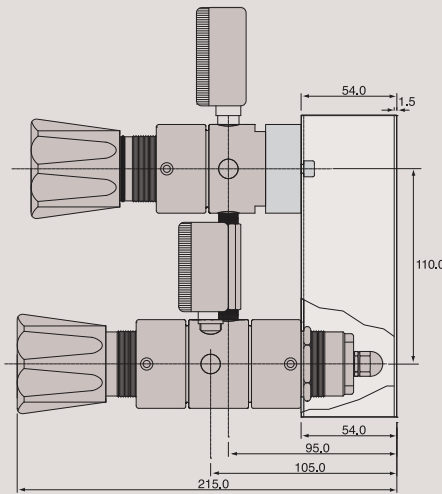
AC720

SERIES

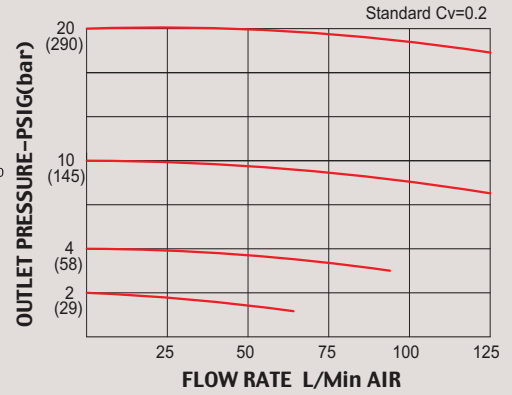
FUNCTIONAL SCHEMATIC



INSTALLATION DIMENSIONS



FLOW CHART



SPECIFICATIONS

Port Sizes	1/4" FNPT
Body	Stainless Steel 316L or Brass
Bonnet	Nickel Plated Brass
Diaphragm	Stainless Steel 316L
Main Valve	Stainless Steel 316L
Valve Spring	Stainless Steel 316L
Valve Seat	Teflon / Standard
Maximum Inlet Pressure	250bar(3,600psig)
Outlet Pressure Range	2bar, 4bar, 10bar, 20bar
Design Proof Pressure	150% of maximum rated
Leakage	to 2x10 ⁻⁸ atm cc/sec Helium available.
Operating Temperature	PFA: -40° C to 70° C Standard
Flow Capacity	Cv=0.2 / Standard
Other Options	CGA, Gauge Valve etc. Standard