

ACS012 - Low Flow Changeover Regulator

- Maximum inlet pressure: 400 or 3500 psig / 27.6 or 241 bar
- Four delivery pressures from 100 to 250 psig / 6.9 to 17.2 bar
- Designed to provide a continuous flow of gas for applications requiring stored gas supplies
- Available in 316 Stainless Steel, Brass, or Nickel-plated Brass
- Based on Tescom's field-proven 44-2200 Regulator
- Mounting bracket is standard

CS-2200 - Low Flow Changeover System

- Maximum inlet pressure: 3500 psig / 241 bar
- Four maximum delivery pressures from 25 to 150 psig / 1.7 to 10.3 bar
- Designed to provide a continuous flow of gas for applications requiring stored gas supplies
- Available in 316 Stainless Steel or Brass
- Based on Tescom's field-proven 44-2200 Regulator
- Mounting bracket is standard

ACS3200 - High Flow Changeover Regulator

- Maximum inlet pressure: 3000 psig / 207 bar
- Delivery pressure: 160/200 psig / 11.0/13.8 bar
- Available in 316 Stainless Steel or Brass
- Based on Tescom's field-proven 44-3200 Regulator
- Mounting bracket is standard

CR441800 - High Pressure Changeover System

- Maximum inlet pressure: 3500 or 6000 psig / 241 or 414 bar
- Seven maximum delivery pressures from 500 to 2000 psig / 34.5 to 138 bar
- Designed to provide a continuous flow of gas for applications requiring stored gas supplies
- Available in 316 Stainless Steel or Brass
- Based on Tescom's field-proven 44-1800 Regulator

Applications

ACS012



CS-2200



ACS3200



CR441800



- CO₂ for tissue and cell culture incubators supply
- Shielding and laser assist gases in metal fabrication (ACS3200 only)
- Analyzer carrier gas
- Laser cutting assist gas

AUTOMATIC CHANGEOVER REGULATORS & SYSTEMS

ACS3200 Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

3000 psig / 207 bar

Outlet Pressure

160-200 psig / 11.0-13.8 bar

Design Proof Pressure

150% of maximum operating

Leak Rate

Internal: Bubble-tight

External: Designed to meet $\leq 2 \times 10^{-8}$ atm cc/sec He

Operating Temperature

-40°F to 140°F / -40°C to 60°C

Flow Capacity

$C_V = 1.2$

MEDIA CONTACT MATERIALS

Body

316 Stainless Steel or Brass

Bonnet

Nickel-plated Brass

Valve Seat

PCTFE

Valve O-Ring

FKM (Viton®-A)

Diaphragm

316 Stainless Steel

Spring

316 Stainless Steel

Remaining Parts

316 Stainless Steel

OTHERS

Gauges (3 standard)

316 Stainless Steel gauges with Stainless Steel regulators,
Brass gauges with Brass regulators

Cleaning

CGA 4.1 and ASTM G93

Weight

10 lbs / 4.5 kg

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TESCOM ACS3200 Series is a compact, lightweight high purity, high flow changeover system for specialty, corrosive, and pyrophoric gases. Diffusion-resistant metal diaphragm seal ensures gas purity and integrity. It provides continuous flow of gas from two pressure sources.

CS2200 Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

3500 psig / 241 bar

Design Proof Pressure

150% of maximum rated

Leak Rate

Internal: Bubble-tight

External: Designed to meet $\leq 2 \times 10^{-8}$ atm cc/sec He

Operating Temperature

-40°F to 165°F / -40°C to 74°C

Flow Capacity

$C_V = 0.06$

MEDIA CONTACT MATERIALS

Body

316 Stainless Steel or Brass

Bonnet

300 Series Stainless Steel or Brass

Valve Seat

PTFE

Diaphragm

316 Stainless Steel

Friction Sleeve

Inner: PTFE
Outer: 316 Stainless Steel

Spring

316 Stainless Steel

Remaining Parts

316 Stainless Steel (and Brass for Brass bodies)

OTHERS

Gauges (3 standard)

316 Stainless Steel gauges with Stainless Steel regulators,
Brass gauges with Brass regulators

Connections

1/4" Female NPTF

Cleaning

CGA 4.1 and ASTM G93

Weight

5 lbs / 2.3 kg

TESCOM CS-2200 Series is a complete high purity changeover system which combines the changeover regulator and a line regulator into a compact wall mount system for specialty, corrosive, and pyrophoric gases. Diffusion-resistant metal diaphragm seal ensures gas purity and integrity. It provides continuous low flow of gas from two pressure sources.



AUTOMATIC CHANGEOVER REGULATORS & SYSTEMS

ACS012 Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

400 or 3500 psig / 27.6 or 241 bar

Maximum Delivery Pressure

85/115, 135/165, 185/215, 235/265 psig
5.9/7.9, 9.3/11.4, 12.8/14.8, 16.2/18.3 bar

Design Proof Pressure

150% of maximum operating

Leak Rate

Internal: Bubble-tight

External: Designed to meet $\leq 2 \times 10^{-8}$ atm cc/sec He

Operating Temperature

-40°F to 165°F / -40°C to 74°C

Flow Capacity

$C_V = 0.06$

CR441800 Specifications

For other materials or modifications, please consult TESCOM.

OPERATING PARAMETERS

Pressure rating per criteria of ANSI/ASME B31.3

Maximum Inlet Pressure

3500 or 6000 psig / 241 or 414 bar

Maximum Outlet Pressure Ranges

475/525, 575/625, 675/725, 775/825, 875/925, 975/1025,
1975/2025 psig
32.8/36.2, 39.6/43.1, 46.5/50.0, 53.4/56.9, 60.3/63.8,
67.2/70.7, 136/140 bar

Design Proof Pressure

150% of maximum operating

Leak Rate

Bubble-tight

Operating Temperature

-15°F to 165°F / -26°C to 74°C

Flow Capacity

$C_V = 0.06$

MEDIA CONTACT MATERIALS

Body

316 Stainless Steel, Brass, or Nickel-plated Brass

Bonnet

300 Series Stainless Steel or Brass

Valve Seat

PTFE

Diaphragm

316 Stainless Steel

Friction Sleeve

Inner: PTFE

Outer: 316 Stainless Steel

Spring

316 Stainless Steel

Remaining Parts

316 Stainless Steel (and Brass for Brass bodies)

MEDIA CONTACT MATERIALS

Body

Brass, 316 Stainless Steel, or Nickel-plated Brass

Bonnet

300 Series Stainless Steel, Brass, or Nickel-plated Brass

Valve Seat

Polyimide (Vespel®)

O-Ring

FKM

Remaining Parts

Brass and 300 Series Stainless Steel

OTHERS

Gauges (3 standard)

316 Stainless Steel gauges with Stainless Steel regulators,
Brass gauges with Brass regulators

Connections

1/4" Female NPTF

Cleaning

CGA 4.1 and ASTM G93

Weight

5 lbs / 2.3 kg

OTHERS

Cleaning

CGA 4.1 and ASTM G93

Weight

3 lbs / 1.4 kg

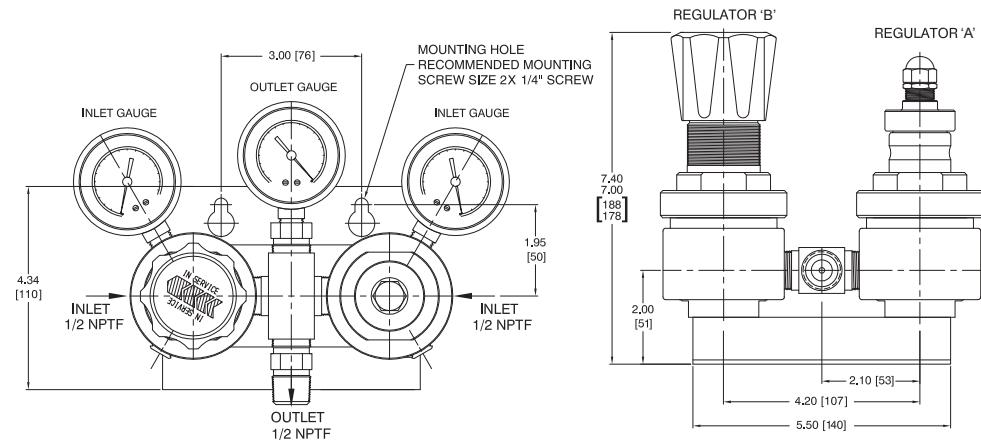
TESCOM CR441800 Series is a compact, high pressure changeover system which combines the changeover regulator and a line regulator into a compact wall mount system for general purpose and industrial gases. It provides continuous low flow of gas from two high pressure sources.

TESCOM ACS012 Series is a compact, lightweight high purity changeover system for specialty, corrosive, and pyrophoric gases. Diffusion-resistant metal diaphragm seal ensures gas purity and integrity. It provides continuous low flow of gas from two pressure sources.

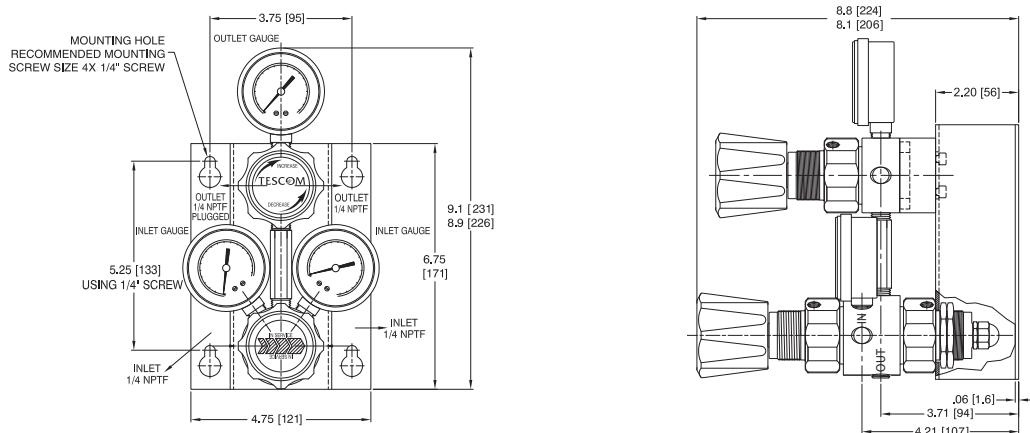
AUTOMATIC CHANGEOVER REGULATORS & SYSTEMS

Automatic Changeover Regulators and Systems Drawings

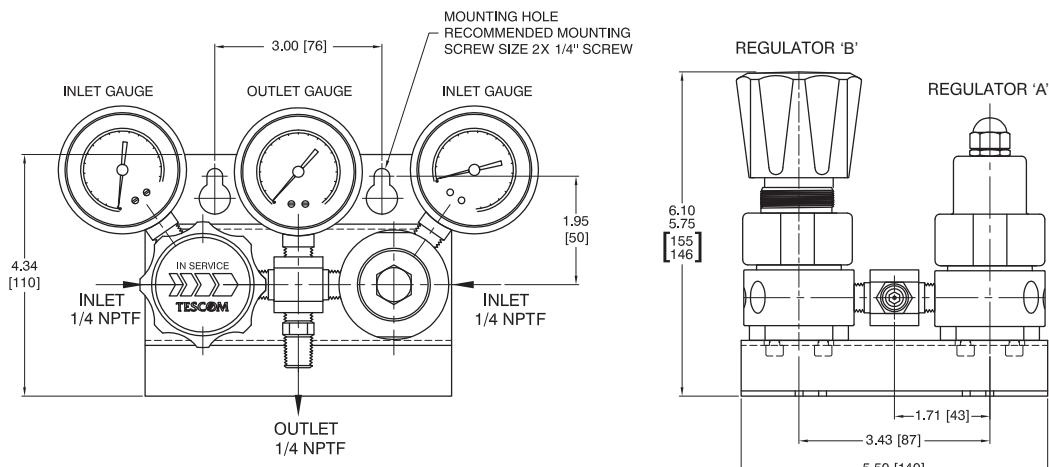
ACS3200 SERIES CHANGEOVER SYSTEMS (HIGH FLOW)



CS2200 SERIES CHANGEOVER SYSTEMS (LOW FLOW)



ACS012 SERIES CHANGEOVER SYSTEMS (LOW FLOW)

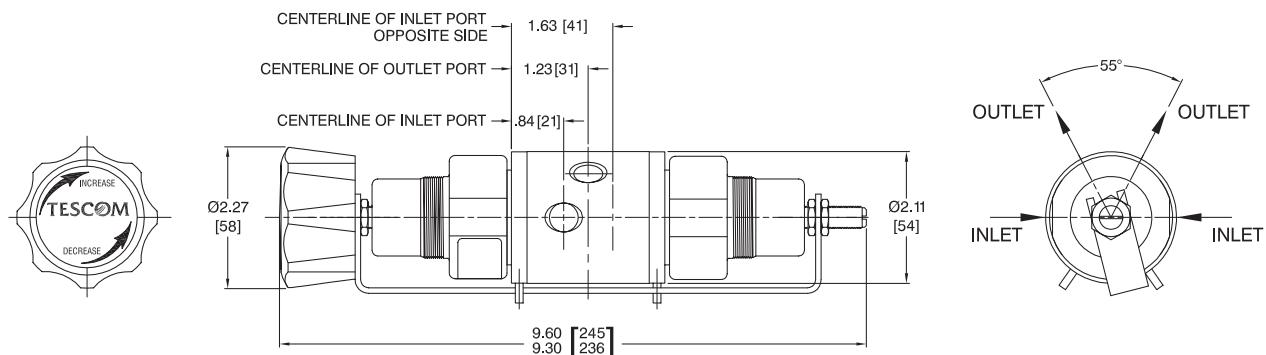


All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

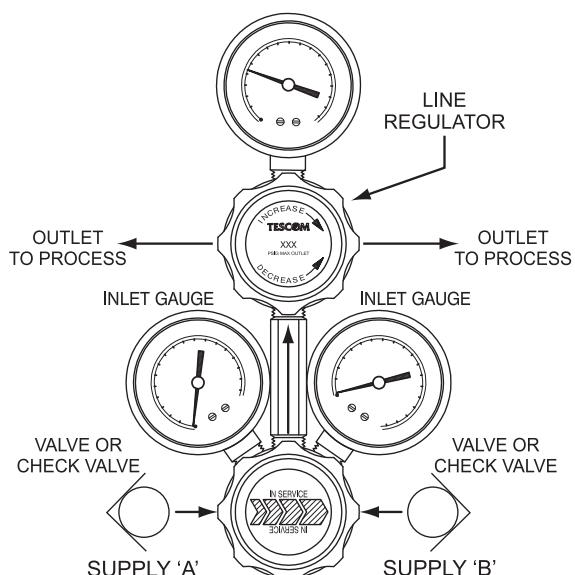
AUTOMATIC CHANGEOVER REGULATORS & SYSTEMS

Automatic Changeover Regulators and Systems Drawings

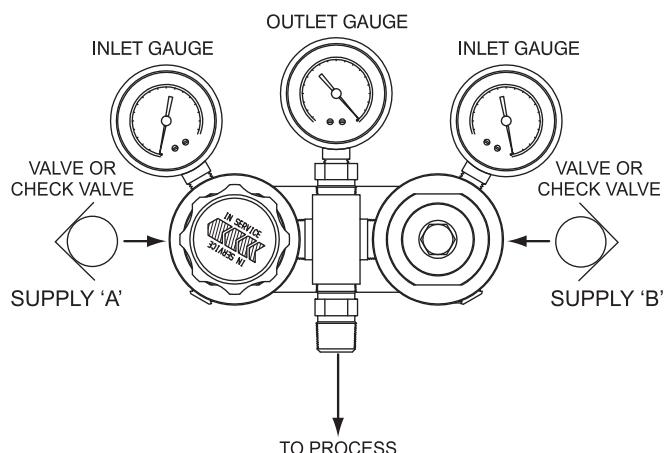
CR441800 SERIES CHANGEOVER SYSTEMS (HIGH PRESSURE)



BASIC FUNCTIONAL DESCRIPTION CHANGEOVER SYSTEMS



SINGLE BODY CHANGEOVER SYSTEM



TWO BODY CHANGEOVER SYSTEM

All dimensions are reference & nominal
Metric [millimeter] equivalents are in brackets

When primary supply to the changeover regulator (supply 'A') is consumed, the secondary supply (supply 'B') feeds the line regulator and/or process. The line regulator supplies media to the process at the precise pressure required. By turning the changeover regulator handknob clockwise, supply

'A' can then be replenished. When supply 'B' is depleted, supply 'A' will then begin to feed the line regulator and/or process. With a counterclockwise turn of the changeover regulator handknob, supply 'B' can be replenished.

AUTOMATIC CHANGEOVER REGULATORS & SYSTEMS

Automatic Changeover Regulators and Systems Part Number Selector

Repair Kits, Accessories & Modifications may be available for this product. Please contact TESCOM for more information.

Example for selecting a part number:

ACS32	1	4	1	1
BASIC SERIES	BODY AND TRIM	OUTLET PRESSURE	GAUGE OPTION	MAXIMUM INLET PRESSURE

ACS32 1 - Brass
6 - 316 Stainless Steel 4 - 160/200 psig
11.0/13.8 bar
(optional 400 psig /
27.6 gauge) 0 - No gauges installed
1 - Gauges installed 1 - 3000 psig
207 bar
(optional 4000 psig /
276 bar gauge)

CS - 22	6	3	-	2	4	1
BASIC SERIES	BODY MATERIAL	OUTLET PRESSURE RANGES	INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	MAXIMUM INLET PRESSURE	

CS - 22 1 - Brass
6 - 316 Stainless Steel 0 - 0-25 psig
0-1.7 bar
1 - 0-50 psig
0-3.4 bar
2 - 0-100 psig
0-6.9 bar
3 - 0-150 psig
0-10.3 bar 2 - NPTF 4 - 1/4" 1 - 3500 psig
241 bar
(with gauges)
2 - 3500 psig
241 bar
(no gauges)

ACS012	1	3	0	1	
BASIC SERIES	BODY MATERIAL	PRESSURE SETTINGS	OUTLET GAUGE INSTALLED (OPTIONAL)	GAUGES	MAXIMUM INLET PRESSURE

ACS012 1 - Brass
6 - 316 Stainless Steel
P - Nickel-plated Brass 0 - 85/115 psig
5.9/7.9 bar 200 psig
13.8 bar
1 - 135/165 psig
9.3/11.4 bar 200 psig
13.8 bar
2 - 185/215 psig
12.8/14.8 bar 300 psig
20.7 bar
3 - 235/265 psig
16.2/18.3 bar 300 psig
20.7 bar 0 - No Gauges
1 - With Three Gauges¹
(installed) 1 - 3500 psig
241 bar (optional 4000 psig /
276 bar gauge)
2 - 400 psig
27.6 bar (optional 600 psig /
41.4 bar gauge)

¹. Brass gauges are provided with Brass regulators and Stainless Steel gauges are provided with Stainless Steel regulators.

CR4418	6	2	-	2	4	1
BASIC SERIES	BODY MATERIAL	OUTLET PRESSURE RANGES	INLET AND OUTLET PORT TYPE	INLET AND OUTLET PORT SIZE	MAXIMUM INLET PRESSURE	

CR4418 1 - Brass
6 - 316 Stainless Steel
P - Nickel-plated Brass 1 - 475/525 psig
32.8/36.2 bar
2 - 575/625 psig
39.6/43.1 bar
3 - 675/725 psig
46.5/50.0 bar
4 - 775/825 psig
53.4/56.9 bar
5 - 875/925 psig
60.3/63.8 bar
6 - 975/1025 psig
67.2/70.7 bar
7 - 1975/2025 psig
136/140 bar 2 - NPTF 4 - 1/4" 1 - 3500 psig
241 bar
3 - 6000 psig
414 bar