# 523 Series AutoSwitch

The stainless steel 523 Series AutoSwitch is a continuous gas delivery system for ultra-high purity or corrosive gas service. Typically used in laboratory or process plants, the 523 AutoSwitch automatically changes cylinder or bank priority from the primary source to a reserve supply without transmitting pressure fluctuations to the use line. The 523 AutoSwitch may be used with one cylinder per side, or with the CONCOA 52 Series maniflex manifold for increased storage capacity. Options for the 523 Series AutoSwitch include internal pressure switches with warning lights for cylinder depletion or internal pressure transducers without warning lights. Both may be used with the CONCOA Altos 2™ remoter alarm.




*5233004-01-001 shown*

### Typical Applications

- Research Purity or Corrosive Gas Systems
- Pure or Mix Process Gas Supply
- Hydrogen and other Flammable Gases
- Biotech and Pharmaceutical Gas Systems
- Gas Chromatograph Carrier and Support Gases

## Features

**400 Series Stainless Steel CAPSULE® Seat Components** feature integral 360° filtration

**Metal to Metal Seals** prevent the possibility of gas contamination

**Integral Line Regulator** provides stable line pressure during changeover

**Variable Line Pressure** permits on-site line pressure changes

**Single Knob Priority Valve** ensures uninterrupted cylinder priority changeover

**Optional Intrinsic Safety Barriers** support use with flammable gases or in hazardous areas

**Optional Captured Venting and Pipe Away Relief** ensures safe use with hazardous gases

**Optional Manifold Extension** allows simple field expandability

## Materials and Specifications

**Maximum Inlet Pressure:** 3000 PSIG (210 BAR)

**Temperature Range:** -40°F to 140°F (-40°C to 60°C)

**Max Flow:** 600 SCFH (283 LPM) @ 100 PSIG (BAR)

**Cv:** 0.1

**Helium Leak Integrity:** 1 x $10^{-8}$ scc/sec

**Inlet Connections:** 1/2" FNPT

**Outlet Connections:** 1/4" Stainless steel compression tube

**Relief Valve Outlet:** 1/2" FNPT

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## Materials and Specifications

**Priority Valve Body:** 316L stainless steel barstock

**Line Regulator Body:** 316L stainless steelbarstock

**Diaphragms:** 316L stainless steel

**Enclosure:** NEMA 12, powder-coated steel

**Tubing and Fittings:** 316L stainless steel

**Seats:** PTFE (line regulator); PCTFE (inlet regulators)

**Internal Seals:** PTFE

**Gauges:** 316L stainless steel

**Check Valves:** 316L stainless steel with FKM seals

**Pressure Switches (optional):** Field-settable on inlet gauge, dry contact (opens below set point)

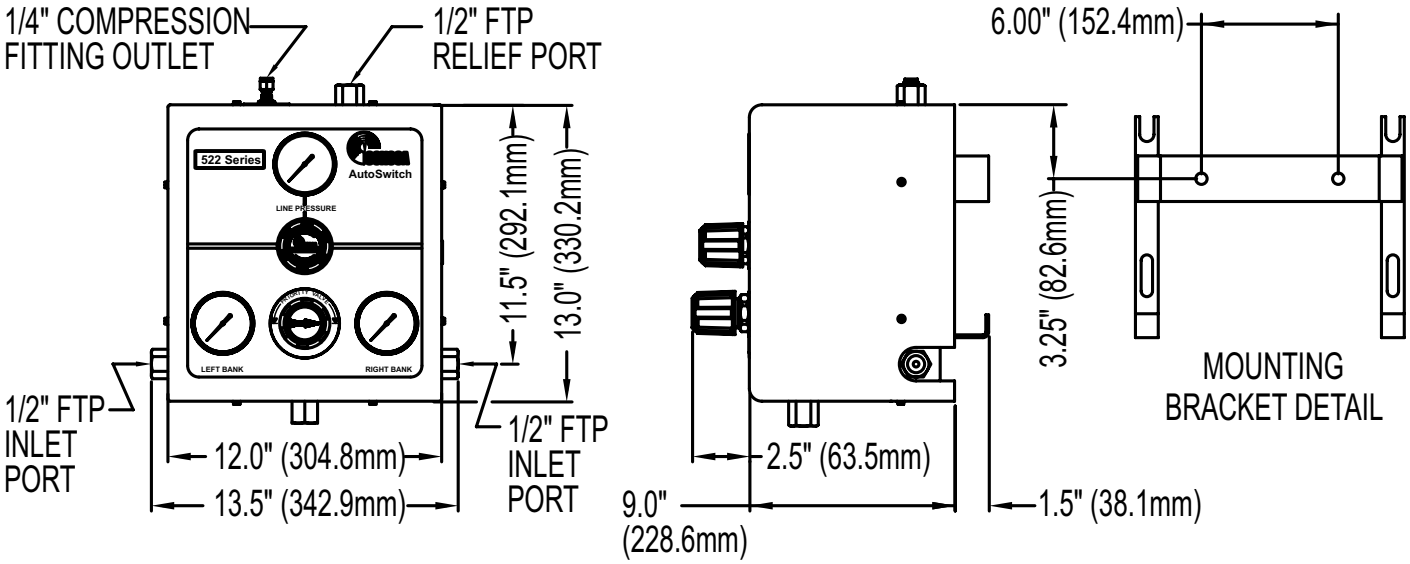
**Standard Transducers (optional):** 0-6000 PSIG (4-20 mA output)

**Intrinsically Safe Transducers (optional):** 0-5000 PSIG (4-20 mA output)

**Weight:** 40 lbs (18 kg)

**Conformances:** Cleanliness meets or exceeds CGA G-4.1; ANSI/ASME B40.1; PED 2014/68/EU; CRN OH5216.5; CRN OH17950.5

## Installation Dimensions



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CONCOA PRECISION GAS CONTROLS

## Ordering Information

| 523 | A | B | C | D | -CON | Options |
|---|---|---|---|---|---|---|
| Series 523 | Outlet Pressure | Inlet Connection | Cylinders/Side | Assembly | Hose | |
| | **2:** 0-50 PSIG (0-3.5 BAR) | **0:** 1/2" FNPT | **0:** No inlet connection** | **1:** 0-4000 PSIG/0-275 BAR gauges no alarm capability | **-001:** 1/2" FNPT Port* | **C:** Compact manifold extensions |
| | **3:** 0-100 PSIG (0-7 BAR) | **1:** Stainless steel manifold with 36" (900mm) stainless steel flexible hoses at each station | **1:** One cylinder | **A:** 0-4000 PSIG/0-275 BAR gauges with Altos 2 alarm and standard transducers | **Valid if B = 0 or 6.* | |
| | **4:** 0-200 PSIG (0-14 BAR) | **3:** Diaphragm valves with 36" (900mm) stainless steel flexible hoses* | **2:** Two cylinders | **B:** 0-4000 PSIG/0-275 BAR gauges with standard transducers - alarm not included | *Please specify inlet connection for models with hoses (if applicable).* | |
| | **5:** 0-350 PSIG (0-24 BAR) | **4:** Stainless steel manifold with 24" (600mm) stainless steel flexible hoses at each station | **3:** Three cylinders | **C:** 0-4000 PSIG/0-275 BAR gauges with Altos 2 alarm and intrinsically safe transducers | *CGA DIN 477 BS 341 and others available.* | |
| | **7:** 0-150 PSIG (0-10 BAR) | **5:** Stainless steel manifold with 36" (900mm) stainless steel flexible hoses at each station | **4:** Four cylinders | **D:** 0-4000 PSIG/0-275 BAR gauges with intrinsically safe transducers - alarm not included | | |
| | | **6:** 1/2" FNPT with captured vent | **5:** Five cylinders | **Intrinsic safety barriers are required for flammable gas service or for use in hazardous environments.* | | |
| | | **7:** Stainless steel manifold with 24" (600mm) stainless steel flexible hoses at each station | **6:** Six cylinders | | | |
| | | **8:** Diaphragm valves for toxic gases with 36" (900mm) flexible hoses*† | **7:** Seven cylinders | | | |
| | | **9:** Diaphragm valves with 72" (1800mm) stainless steel hoses* | **8:** Eight cylinders | | | |
| | | **One cylinder/side only †Includes captured vent.* | **9:** Nine cylinders | | | |
| | | | **0:** Ten cylinders** | | | |
| | | | **A:** Eleven cylinders | | | |
| | | | **B:** Twelve cylinders | | | |
| | | | **C:** Thirteen cylinders | | | |
| | | | **D:** Fourteen cylinders | | | |
| | | | **E:** Fifteen cylinders | | | |
| | | | ***** If manifold option is selected in B, 0 = ten cylinders.*** | | | |