



# Pressure Differential Switchovers

# 523 SERIES

## AutoSwitch

The 523 Series AutoSwitch is a continuous gas delivery system for high purity gas service, typically in the laboratory or process plant, that automatically changes cylinder or bank priority from the primary source to a reserve supply without transmitting pressure fluctuations to the use line. Options include internal pressure switches with warning lights for cylinder depletion or internal pressure transducers without warning lights. Both may be used with an Altos alarm.



523 300A shown

### Typical Applications

- Research purity or corrosive gas supply
- Gas chromatograph carrier and support gases
- Hydrogen and other flammable gases
- Pure or mix process gas supply
- Biotech and pharmaceutical gas systems
- Central gas supply system for laboratory, research or process plants

### Features

- 400 Series Stainless Steel Components**  
CAPSULE® seat
- Metal-to-Metal Seals**  
No possibility of gas contamination
- Integral Line Regulator**  
Stable line pressure during change over
- Variable Line Pressure**  
Line pressure changeable on site
- User-Friendly Priority Valve**  
One knob switches cylinder priority
- Integral Manifold System**  
Easy installation
- Flexible Source Pressure Monitoring**  
Pressure switches or transducers
- Intrinsic Safety Barriers**  
For use with flammable gases or in hazardous areas (Class 1, Div. 1, Group A, B, C, or D)

### Materials

- Priority Valve**  
316L stainless steel barstock
- Line Regulator**  
316L stainless steel barstock
- Diaphragms**  
316L stainless steel
- Enclosure**  
Acrylic powder-coated steel
- Tubing and Fittings**  
316L stainless steel
- Seats**  
PTFE (line regulators)  
PCTFE (inlet regulators)
- Internal Seals**  
PTFE
- Pressure Gauges**  
316L stainless steel
- Pressure Switches (optional)**  
Field-settable on inlet gauge, dry contact (opens below set point)
- Check Valves**  
316L stainless steel with Viton® seals
- Transducers (optional)**  
0-6000 PSIG (4-20 mA output)  
Optionally intrinsically safe

### Specifications

- Maximum Inlet Pressure**  
3000 PSIG (210 BAR)
- Temperature Range**  
-40°F to 140°F (-40°C to 60°C)
- Maximum Flow at 100 PSIG (7 BAR)**  
600 SCFH (283 LPM)
- Cv**  
0.1
- Inlet Connection**  
1/2" FPT
- Outlet Connection**  
1/4" stainless steel compression tube
- Relief Valve Outlet**  
1/2" FPT
- Helium Leak Integrity**  
1 x 10<sup>-8</sup> scc/sec
- Weight**  
40 lbs. (18 kg)

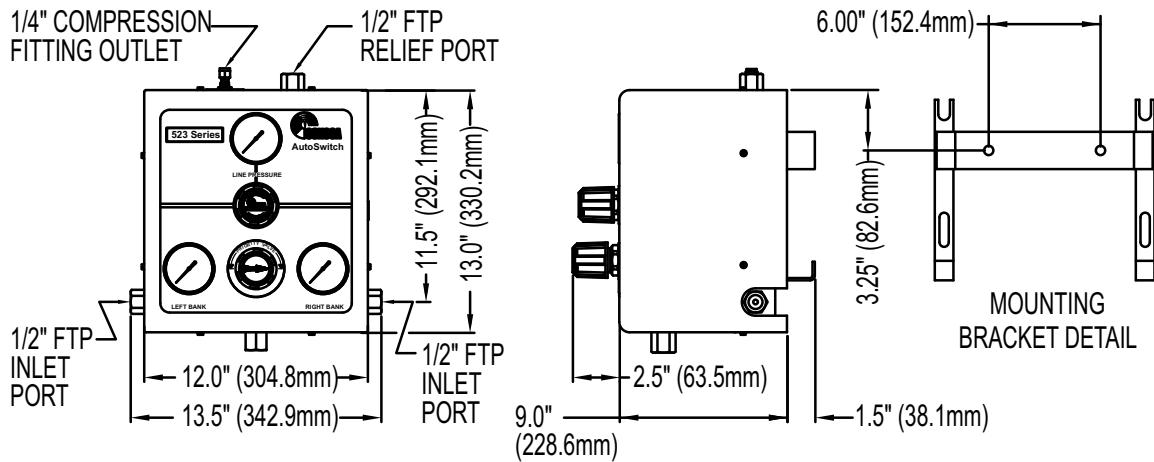
See pages 70-71 for manifold ordering information

CRN 0H17950.5

# Pressure Differential Switchovers



## Installation Information



DISTRIBUTION SYSTEMS

## Ordering Information

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