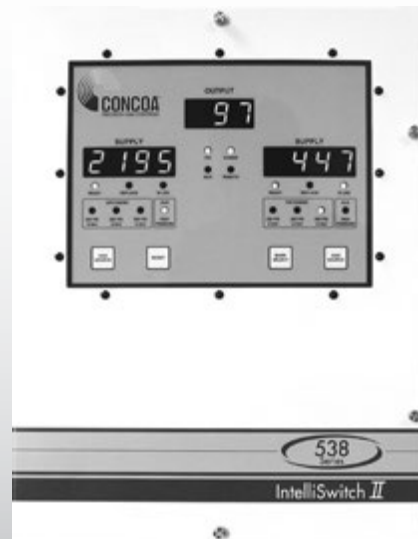# IntelliSwitch Systems

538 SERIES

IntelliSwitch II™

The fully-automatic 538 Series IntelliSwitch II gas switchover is CONCOA's revolutionary new generation of gas management systems. The IntelliSwitch II features a proprietary onboard I-Link web server technology allowing remote monitoring, secure system configuration, and e-mail notification of real-time system status and events. It is ideally suited to interchangeable service/continuous supply in analytical laboratory, chemical process, instrumentation, and critical gas supply applications. The IntelliSwitch II offers continuous gas pressure and flow control from liquid or high pressure cylinder sources. The end user selects the mode of supply by the simple push of a button. Proprietary software logic lowers yearly gas costs by eliminating liquid cylinder vent loss and excess residual return.

Typical Applications

High purity, non-corrosive, non-flammable gas supply
Gas chromatograph and mass spec carrier and support gases
Inductively coupled plasma (ICP) and ICP-mass spec continuous gas supply
Incubator Carbon Dioxide and Nitrogen gas supply
Biotech, pharmaceutical and forensic gas systems
Microbulk changeover supply
Central gas supply system for laboratory, research or process plants

Features

Micro-Processor Control
Fully automatic priority assignment

Remote & Field-Adjustable Software
Enables process flexibility and remote monitoring

On-Site or Remote Source Selection
Liquid cylinder or high-pressure service

On Board Web Server & Remote Software
Enables monitoring and control functions

Low Loss Technology
Reduces residual return

Electronic Economizer
Eliminates liquid cylinder vent loss

Process Gas Pilot Valve
Simple installation

RS 232 Communication
Provides remote monitoring of supply

NEMA 4 Enclosure Standard
Install anywhere

Single & Dual Stage Pressure Control
Provide high flow and stable outlet pressure control

Materials

Regulator and Valve Bodies
Brass barstock

Valve Stems
316L stainless steel

Valve Seats
PCTFE

Seals
PTFE, PCTFE and Viton®

Regulator Diaphragm
316L stainless steel

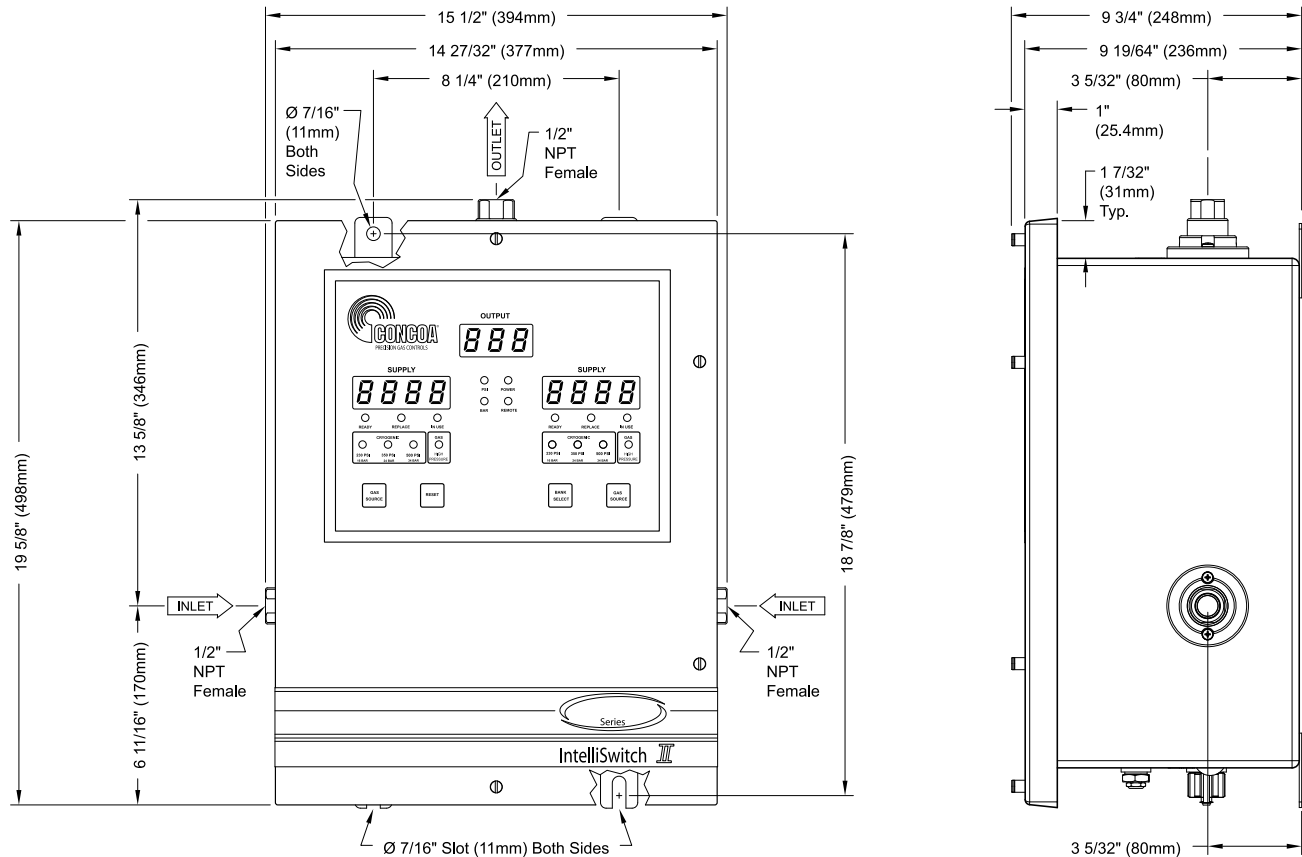**Enclosure**
NEMA 4 powder-coated steel

Specifications

CE marked
Conforms to EU directives

Power Requirements
110 or 240 VAC (terminal block provided with 1/2" conduit hole)

Maximum Inlet Pressure
3000 PSIG (210 BAR)

Temperature Range
0°F to 140°F (-18°C to 60°C)

Flow Capacity
Cv = 1.0

Filter
40 micron

Inlet Connection
1/2" FPT

Outlet Connection
1/2" FPT

Weight
67 lbs. (30.4 kg)

CRN 0H17950.5

IntelliSwitch Systems

Installation Dimensions

Dimensions noted on front view diagram:
- 15 1/2" (394mm)
- 14 27/32" (377mm)
- 8 1/4" (210mm)
- Ø 7/16" (11mm) Both Sides
- OUTLET — 1/2" NPT Female
- 13 5/8" (346mm)
- 19 5/8" (498mm)
- 18 7/8" (479mm)
- 6 11/16" (170mm)
- INLET — 1/2" NPT Female (both sides)
- Ø 7/16" Slot (11mm) Both Sides
- IntelliSwitch II

Dimensions noted on side view diagram:
- 9 3/4" (248mm)
- 9 19/64" (236mm)
- 3 5/32" (80mm)
- 1" (25.4mm)
- 1 7/32" (31mm) Typ.
- 3 5/32" (80mm)

Ordering Information

538	A	B	C	D	-CON
Series 538	Delivery Pressure	Right Side Connection	Left Side Connection	Assembly	Hose
	C: 100 PSIG (7 BAR)	**0:** 1/2" FPT port	**0:** 1/2" FPT port	**7:** Single Stage Pressure Control	Please specify inlet connection (if applicable)
	D: 150 PSIG (10 BAR)	**1:** Diaphragm valves with 36" (900mm) stainless flexible hose	**1:** Diaphragm valves with 36" (900mm) stainless flexible hose	**G:** Dual Stage Pressure Control	
	E: 200 PSIG (14 BAR)	**2:** Diaphragm valves with 72" (1800mm) stainless flexible hose	**2:** Diaphragm valves with 72" (1800mm) stainless flexible hose		CGA DIN 477 BS 341 and others available.
		3: Manifold connector*	**3:** Manifold connector*		
		*See pages 70-71 for manifold ordering information			

Related Options

Option	Order Number	Description
Remote Alarm	Advantium Series	Provides audible and visible notification of a depleted supply bank to a remote location (See pgs. 70-71)
Remote Alarm	Altos Series	Provides audible and visible notification of a depleted supply bank to a remote location (See pgs. 72-73)
Vent Manifold Kit	52L Series	Wall-mounted manifold designed to equalize liquid cylinder head pressure
Switchover Station	518 1625	Safely mount and secure any switchover and two cylinders
AutoSwitch Floor Stand	830 7439	Support IntelliSwitch enclosure
Manifold Floor Stand	830 7437	Supports two standard length 12" (304.8mm) manifold extensions installed consecutively