

# 642 SERIES INTELLISWITCH™ II



The web-enabled 642 Series IntelliSwitch II gas switchover is CONCOA's solution for integrated gas management systems. IntelliSwitch II offers continuous pressure and flow control from liquid or high-pressure cylinder sources, selectable by a simple push of a button or remotely via the on-board web server. CONCOA's proven software logic lowers yearly gas costs by eliminating liquid cylinder vent loss and excess residual return.

## Typical Applications

- Metal Fabrication Gas Systems
- Steel Industry Primary Gas Supply System for Argon, Nitrogen, Oxygen
- Continuous Gas Supply for Critical Defense and Aerospace Applications
- Central Gas Supply System for Chemical and Refining Industry Applications



## Features

**Microprocessor Control** provides fully automatic priority assignment

**Remote and Field-Adjustable Software** permits process flexibility and remote monitoring

**On-Site or Remote Source Selection** optimizes management of liquid cylinder or high-pressure supply source

**On Board Web Server and Remote Software** streamlines system monitoring and control functions

**Low Loss Technology** reduces residual return to lower operational costs

**Electronic Economizer** eliminates liquid cylinder vent loss

**NEMA 4 Enclosure** protects against environmental factors

**Internal Balance Stem Line Regulator** ensures total process control

## Materials and Specifications

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

**Cv:** 1.0

**Filter:** 40-micron

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

**Inlet/Outlet Connections:** 1/2 in FNPT

**Valve Bodies:** Brass barstock

**Valve Stems:** 316L stainless steel

**Valve Seats:** PCTFE

**Seals:** PTFE, PCTFE, and Chloroprene

**Hose Core:** PTFE

**Hose Fittings:** Brass

**Hose Casing:** Armor-cased stainless steel

**Power Requirements:** 100-240 VAC 50/60 Hz @.55A

**Communication Connectivity:** Two-channel NO/NC output relay alarm contacts

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**Enclosure:** NEMA 4 powder-coated steel

**Weight:** 67 lbs. (30.4 kg)

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

## Ordering Information

642	A	B	C	D	E	F	G	H
Series 642	Outlet Pressure	Hose Cylinder Connection	Pressure Settings	Assembly	-Left Bank Inlet Connection	Left Bank No. of Stations	Right Bank Inlet Connection	Right Bank No. of Stations
	3: 0-100 PSIG (0-7 BAR)	0: No Inlet Connection	0: Factory Default	7: 3000 PSIG Inlet	1: 1/2" FNPT Port*	0: 1/2" FNPT Port	1: 1/2" FNPT Port*	0: 1/2" FNPT Port
	4: 0-150 PSIG (0-10 BAR)	1: CGA 580 (Inert Gas)	1: 100 PSIG (7 BAR)	8: 3000 PSIG Inlet with Pipe Away Relief Valve*	2: Single 72" Hose	1: One Station	2: Single 72" Hoses	1: One Station
	5: 0-200 PSIG (0-15 BAR)	2: CGA 320 (Carbon Dioxide)	2: 150 PSIG (10 BAR)	<i>*Protects device. Appropriately sized pipeline relief required.</i>	3: Master Valve with Single 72" Hose	2: Two Stations	3: Master Valve with Single 72" Hoses	2: Two Stations
		3: CGA 540 (Oxygen)	3: 200 PSIG (15 BAR)		4: MicroManifold with 72" Hoses	3: Three Stations	4: MicroManifold with 72" Hoses	3: Three Stations
		4: CGA 346 (Air)	4: 250 PSIG (17 BAR)		5: Master Valve with MicroManifold and 72" Hoses	4: Four Stations	5: Master Valve with MicroManifold and 72" Hoses	4: Four Stations
		5: CGA 590 (Industrial Air)	5: 300 PSIG (20 BAR)		6: 628 Manifold with 36" Hoses	5: Five Stations	6: 628 Manifold with 36" Hoses	5: Five Stations
		6: DIN 6 (Inert, Helium, and Carbon Dioxide)	6: 350 PSIG (25 BAR)		<i>*Valid with Left Bank No. of Stations = 0 Only.</i>	6: Six Stations	<i>*Valid with Right Bank No. of Stations = 0 Only.</i>	6: Six Stations
		7: DIN 9 (Oxygen)	7: 400 PSIG (28 BAR)			7: Seven Stations		7: Seven Stations
		8: DIN 10 (Nitrogen)	8: 425 PSIG (30 BAR)			8: Eight Stations		8: Eight Stations
		9: BS 3 (Air, Argon, Helium, and Oxygen)						
		A: BS 8 (Carbon Dioxide)						
		C: No Inlet Connection with Tethered Hose						

## Related Options

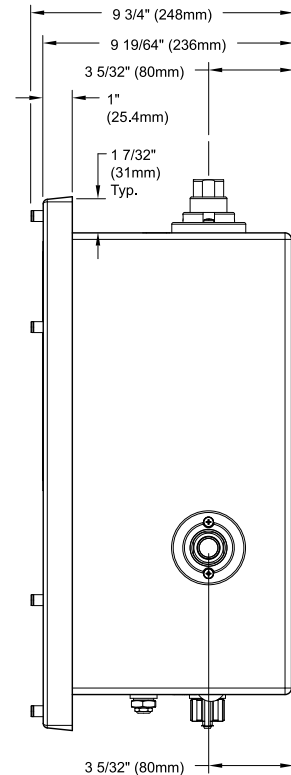
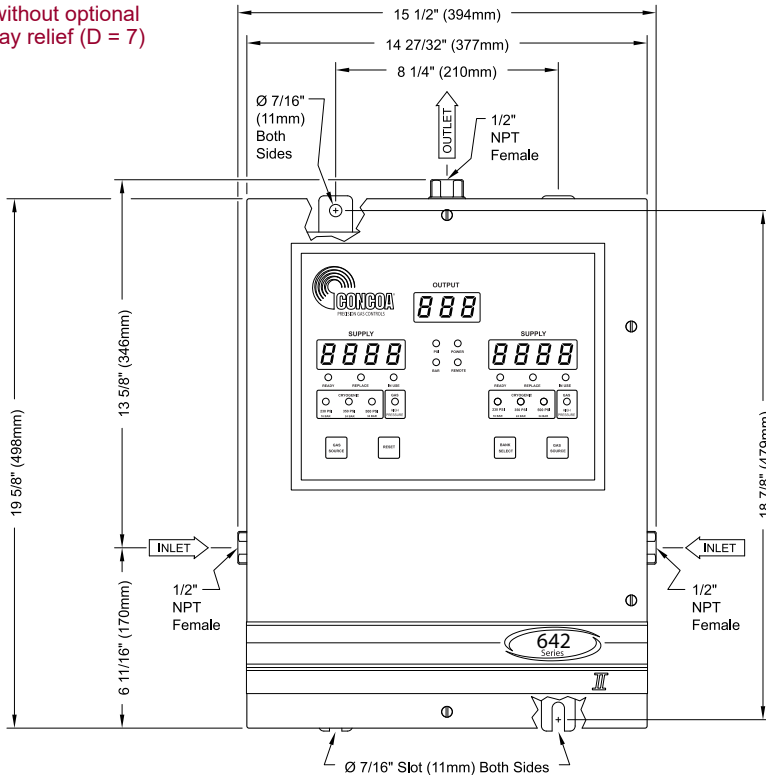
Part Number	Option	Description
5750025-01-24V	Altos 2™ Remote Alarm	Provides audible and visible notification of a depleted supply bank to a remote location
629 Series MicroManifold	Vent Manifold Kit	Wall-mounted manifold designed to equalize liquid cylinder head pressure
518 1625	Switchover Floor Stand	Safely mount and secure any switchover and two cylinders
830 7437	Manifold Floor Stand	Supports two standard length 12" (304.8mm) manifold extensions installed consecutively
830 7439	AutoSwitch Floor Stand	Supports AutoSwitch/IntelliSwitch enclosure

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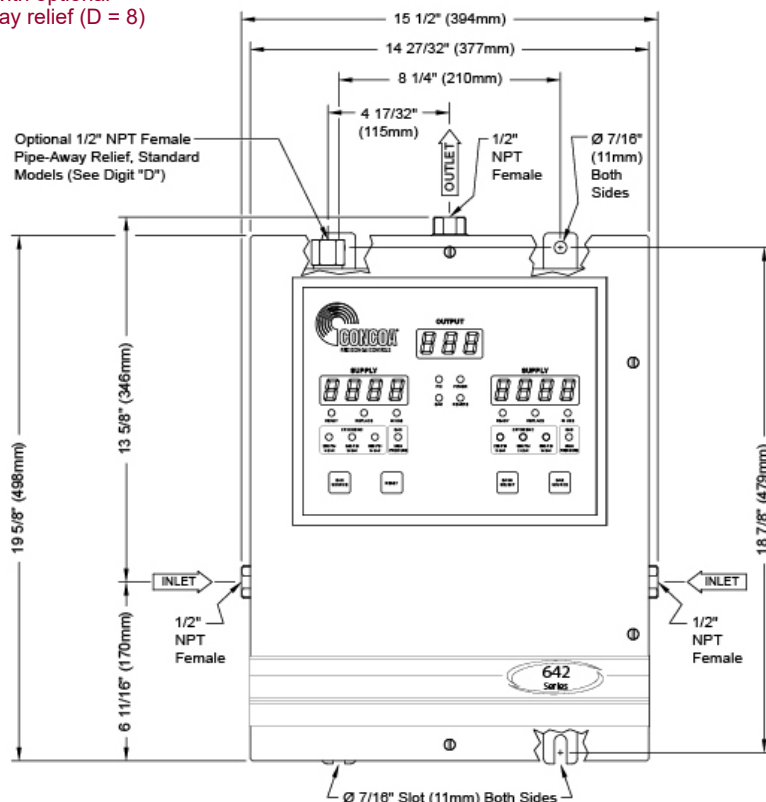


## Installation Dimensions

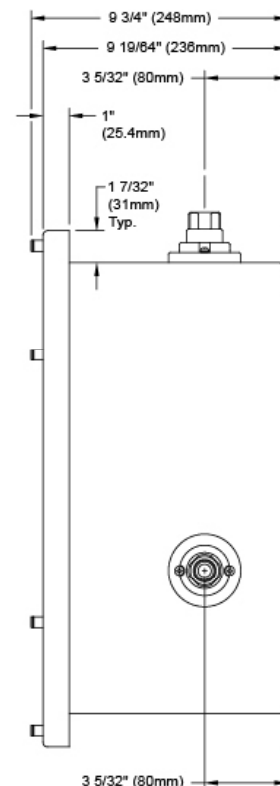
shown without optional pipe-away relief (D = 7)



shown with optional pipe-away relief (D = 8)



side view shown



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## Flow Curves

