Class II (≤ 250 ft³)

#### **Description**

Model 1001C is an enclosure pressurization system that operates on a supply of compressed instrument air or inert gas. It regulates and monitors pressure within sealed (protected) enclosure(s), in order to prevent combustible dust accumulation by maintaining a "safe" (1.0") pressure. This process reduces the hazardous (classified) area rating within the enclosure(s), in accordance with the NEC - NFPA 70, Article 500, NFPA 496 and ISA 12.4.

#### **Operation**

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. Before start-up, all dust must be removed from the enclosure(s). The enclosure protection vent (if used) must be tested and enclosure(s) must be sealed. The enclosure pressure control regulator is then used to set a safe reading on the enclosure pressure gauge. Power can be energized when safe pressure is stable. Loss of safe pressure requires immediate attention, unless power is deenergized. WPS style systems include an explosion proof differential pressure switch with form "C" contacts for audible or visual alarm systems.

# **Model 1001C**



LPS Style (Less Pressure Switch)



WPS Style (With Pressure Switch)





#### **System Specifications**

System Dimensions: See page 8 Shipping Weight: LPS - 7 lb / WPS - 12 lb Temp. Range: -20 °F to +120 °F Supply Pressure Range: \* 5 - 120 psi Supply Requirements: clean air or inert gas Safe Press. Setpoint: 1.0" Safe Press. Flow Rate: \*\* 0.1 - 3.5 SCFH System Supply Fitting: 1/2" tube fitting **Enclosure Supply Fitting:** 1/2" tube fitting 1/4" tube fitting **Enclosure Reference Fitting:** 0.5" ± 0.02" Switch Setting (Decr): Switch Conduit Port Size: 1/2" FPT Switch Contact Rating: 120 VAC @ 15 A

- \* With EPV-4 Vent 120 psi max. to 5 psi min. Systems installed without Vent must be equipped with redundant regulator set to 5 psi max.
- \*\* Enclosure integrity determines actual flow rate

# **Standard Model Applications**

**Model Number:** 1001C-CII Type Y Designation: Pressurization System Enclosure Volume: 250 ft<sup>3</sup> max.

LPS Style

UL & FM Certified: Cl. II, Div. 1, Group F&G Rating Reduction: Div.1 to Div. 2

WPS Style

UL & FM Certified: Cl. II, Div. 1, Group F&G Rating Reduction: Div.1 to Div. 2 Model Number: 1001C-CII Type Z Designation: Pressurization System

Enclosure Volume: 250 ft<sup>3</sup> max.

LPS Style

UL & FM Certified: Cl. II, Div. 2, Group F&G

Rating Reduction: Div. 2 to Nonhazardous

WPS Style

UL & FM Certified: Cl. II, Div. 2, Group F&G

Rating Reduction: Div. 2 to Nonhazardous

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**SERIES** 

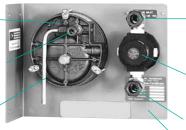


**Enclosure** Pressure Gauge

Enclosure Reference Inlet

Venturi Orifice

WPS Style (With Pressure Switch)



LPS Style (Less Pressure Switch)

Outlet Mountina Plate

System

Supply

Inlet

Enclosure

Pressure

Control

Regulator

**Enclosure** 

Supply

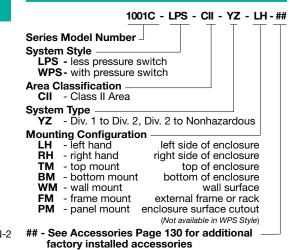
CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

## **Material Specifications**

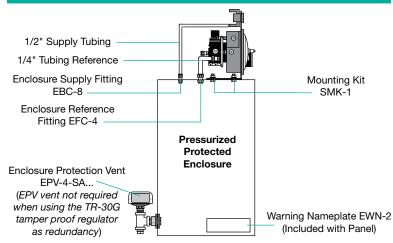
Regulator Body: Zinc w/Enamel Finish Regulator Handle: Polycarbonate Enclosure Pressure Gauge: Alum. w/Enamel Finish 316 SS Forged Body **Tube Fittings:** 316 SS 1/4" .035 Welded Tubing: Silk screened Lexan® & SS System Nameplates: Fastener Hardware: Alum. & Stainless Steel 316 14 Ga #3 Brush SS Mounting Plate: EXP Pressure Switch Body: Anodized Cast Alum. **Enclosure Warning Nameplate:** Silk screened SS

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## **Model Number Designations**



## System Accessories Diagram



# Model 1001C System Accessories (See accessories page for complete details)

#### **CONNECTION FITTINGS & FILTER**

EFC-4 1/4" Flush Connector EFC-8 1/2" Flush Connector EBC-8 1/2" Bulkhead Connector EPC-14 1 1/2" Pipe Connector ILF-8 1/2" Filter w/Clear Bowl **ADDITIONAL ITEMS** 

II F-8 1/2" Filter SMK-1, -4 or -6 System Mounting Kit

EPSK-2 **Explosion Proof Switch Kit** GPSK-2 General-purpose Switch Kit RAH Div. 1 Remote Alarm Horn RAB-1 Div. 1 Remote Alarm Beacon RAR-2 Div. 2 Remote Alarm Beacon LCK L Fitting Conduit Kit **TCK** T Fitting Conduit Kit **OPTIONAL ENCLOSURE PROTECTION VENTS** 

EPV-4-SA-00 Straight w/Spark Arrestor EPV-4-SA-90 Rt Angle w/Spark Arrestor **OPTIONAL HEX KEY REGULATOR HANDLE** 

TR-30G **Tamper Proof Regulator** 

**WARNING NAMEPLATES** 

EWN-2 Class II Enclosure Warning **ETW Enclosure Temperature Warning INSTALLATION & OPERATION MANUAL** 

129-0202 Inst. & Operation Manual

#### ONE (1) ENCLOSURE WARNING NAMEPLATE & ONE (1) INSTALLATION & OPERATION MANUAL ARE PROVIDED WITH EACH SYSTEM

Overall System Dimensions						
LPS / WPS	LH - left hand	RH - right hand	TM - top mount	BM - bottom mount	WM - wall mount	FM & PM - surface
Height	7 / 12	7 / 12	7/8	7/8	7 / 12	9 / 14
Width	8.875 / 8.875	8.875 / 8.875	8.75 / 14.25	8.75 / 14.25	8.875 / 8.875	10.875 / 10.875
Depth	6 / 7.25	6 / 7.25	6 / 7.25	6 / 7.25	7.5 / 9.25	4.75 / 6.5

Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 8h x 9.875w WPS - 13h x 9.875w Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.



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