Class I ($\leq$ 2 ft^3) and Class II ($\leq$ 10 ft^3)

Model 1001A

**LPS Style
(Less Pressure Switch)**

**WPS/WPSA Style
(With Pressure Switch)**

Description

Model 1001A is an enclosure pressurization or purging 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 or remove and prevent flammable gas or vapor accumulations. In Class II areas, the system maintains a "safe" (1.0") pressure. In Class I areas, the system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. These processes reduce 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. In Class II areas, 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. In Class II areas, power can be energized when safe pressure is stable. In Class I areas, the user must perform an exchange cycle (determined by the safe pressure flow rate—five minutes minimum) before power can be energized. Loss of safe pressure in Class I or II areas 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.

System Specifications

System Dimensions:	See page 4
Shipping Weight:	LPS - 5 lb / WPS - 10 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	* 5 - 120 psi
Supply Requirements:	Clean air or inert gas
Safe Press. (CI/CII):	0.25"/1.0"
Safe Press. Flow Rate:	** 0.1 - 3.5 SCFH
System Supply Fitting:	1/4" tube fitting
Enclosure Supply Fitting:	1/4" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting
Switch Setting (CI/CII, Decr):	0.15"/0.5" ± 0.02"
Switch Conduit Port Size:	1/2" FPT

Switch Contact Rating
  WPS Style: 120 VAC @ 15 A
  WPSA Style: *** 120 VAC @ 10 A, 125 VDC @ 50 mA

Switch (WPSA) Power Requirement: 24 VDC @ 3 watts
120 VAC @ 4 watts
240 VAC @ 11 watts

* With EPV-1 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

*** Supply voltages 24 VDC and 240 VAC available upon request.

Standard Model Applications

Model Number: 1001A-CI Type Y
Designation: Purging System
Enclosure Volume: 2 ft^3 max.
LPS Style
UL & FM Certified: Cl. I, Div. 1, Group A-D
Rating Reduction: Div. 1 to Div. 2
WPS Style
UL & FM Certified: Cl. I, Div. 1, Group C&D
Rating Reduction: Div. 1 to Div. 2
WPSA Style
UL & FM Certified: Cl. I, Div. 1, Group A-D
Rating Reduction: Div. 1 to Div. 2

Model Number: 1001A-CI Type Z
Designation: Purging System
Enclosure Volume: 2 ft^3 max.
LPS Style
UL & FM Certified: Cl. I, Div. 2, Group A-D
Rating Reduction: Div. 2 to Nonhazardous
WPS Style
UL & FM Certified: Cl. I, Div. 2, Group C&D
Rating Reduction: Div. 2 to Nonhazardous
WPSA Style
UL & FM Certified: Cl. I, Div. 2, Group A-D
Rating Reduction: Div. 2 to Nonhazardous

Model Number: 1001A-CII Type Y
Designation: Pressurization System
Enclosure Volume: 10 ft^3 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: 1001A-CII Type Z
Designation: Pressurization System
Enclosure Volume: 10 ft^3 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

Enclosure Pressure Gauge

Enclosure Reference Inlet

Venturi Orifice

WPS Style (With Pressure Switch)

LPS Style (Less Pressure Switch)

System Supply Inlet

Enclosure Pressure Control Regulator

Enclosure Supply Outlet

Mounting Plate
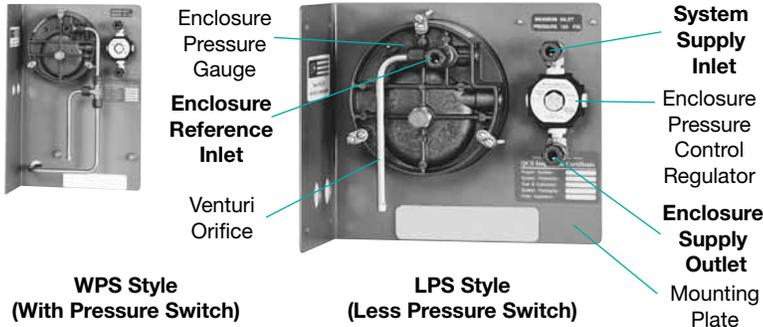
CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM
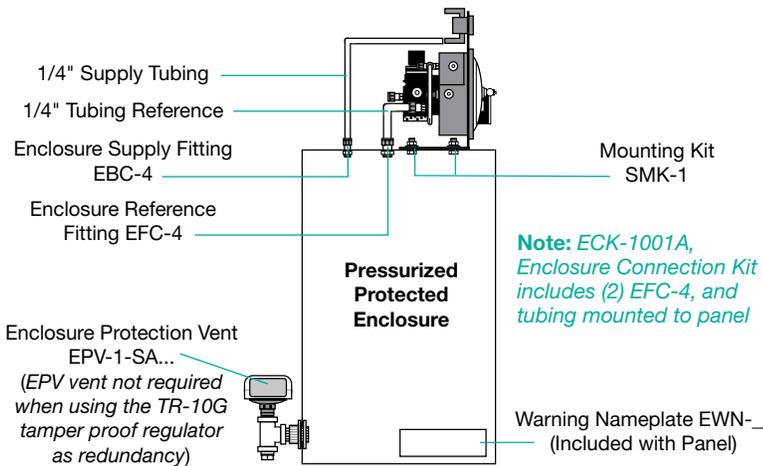
Material Specifications

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

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System Accessories Diagram

1/4" Supply Tubing

1/4" Tubing Reference

Enclosure Supply Fitting EBC-4

Enclosure Reference Fitting EFC-4

Mounting Kit SMK-1

Pressurized Protected Enclosure

Note: ECK-1001A, Enclosure Connection Kit includes (2) EFC-4, and tubing mounted to panel

Enclosure Protection Vent EPV-1-SA...
(EPV vent not required when using the TR-10G tamper proof regulator as redundancy)

Warning Nameplate EWN-__ (Included with Panel)

Model Number Designations

1001A - LPS - CI - YZ - LH - ##

Series Model Number

System Style
- **LPS** - less pressure switch
- **WPS** - with pressure switch
- **WPSA** - with pressure switch

Area Classification
- **CI** - Class I Area
- **CII** - Class II Area

System Type
- **YZ** - Div. 1 to Div. 2, Div. 2 to Nonhazardous

Mounting Configuration
- **LH** - left hand   left side of enclosure
- **RH** - right hand   right side of enclosure
- **TM** - top mount   top of enclosure
- **BM** - bottom mount   bottom of enclosure
- **WM** - wall mount   wall surface
- **FM** - frame mount   external frame or rack
- **PM** - panel mount   enclosure surface cutout
  (Not available in WPS Style)

- See Accessories Page 130 for additional factory installed accessories

Model 1001A System Accessories *(See accessories page for complete details)*

FACTORY INSTALLED FITTINGS
ECK-1001A   Enclosure Connection Kit

CONNECTION FITTINGS
EFC-4   1/4" Flush Connector
EBC-4   1/4" Bulkhead Connector
EPC-10   1/2" Pipe Connector

ADDITIONAL ITEMS
ILF-4   1/4" Filter
SMK-1, -4 or -6   System Mounting Kit
EPSK-1 or -2   Explosion Proof Switch Kit

GPSK-1 or -2   General-purpose Switch Kit
RAH   Div. 1 Remote Alarm Horn
RAB-1   Div. 1 Remote Alarm Beacon
RAB-2   Div. 2 Remote Alarm Beacon
LCK   L Fitting Conduit Kit
TCK   T Fitting Conduit Kit

OPTIONAL ENCLOSURE PROTECTION VENTS
EPV-1-SA-00   Straight w/Spark Arrestor
EPV-1-SA-90   Rt Angle w/Spark Arrestor

OPTIONAL HEX KEY REGULATOR HANDLE
TR-10G   Tamper Proof Regulator

WARNING NAMEPLATES
EWN-1   Class I Enclosure Warning
EWN-2   Class II Enclosure Warning
ETW   Enclosure Temperature Warning

INSTALLATION & OPERATION MANUAL
129-0197   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 / 8	8 / 8	8 / 13.375	8 / 13.375	8 / 8	10 / 10
Depth	5.5 / 7.25	5.5 / 7.25	5.5 / 7.25	5.5 / 7.25	7.5 / 9.25	5 / 6.5

Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 8h x 9w   WPS - 13h x 9w
Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.

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