

# 1001A Series Control Unit, Type Y and Z

BEBCO EPS®



## 1001A

- NFPA 70, NFPA 496, ISA 12.4 standards
- Optional alarm output indicates air lock failure
- Type Y system certified for Class I and Class II, Division 1 to Division 2
- Type Z system certified for Class I and Class II, Division 2 to nonhazardous area
- Class I enclosure volume up to 2 ft<sup>3</sup>
- Class II enclosure volume up to 10 ft<sup>3</sup>

## 1001A Series purge and pressurization system



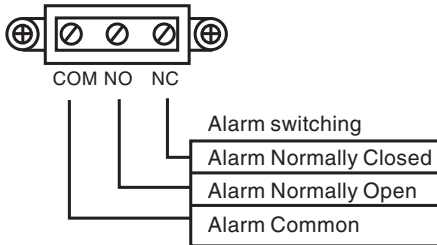
### Function

The model 1001A is an enclosure pressurization or purging system that operates on a supply of compressed instrument air or inert gas. The system 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.

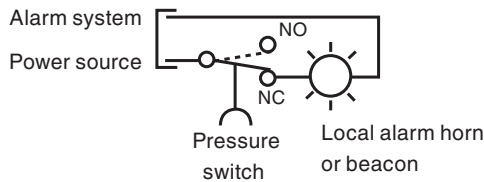
### Connection

#### WPS

Terminal block connections

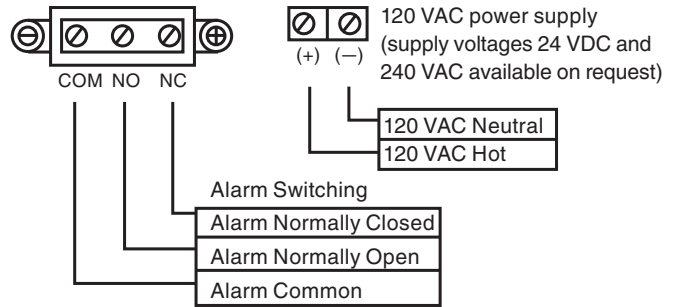


Wiring configuration

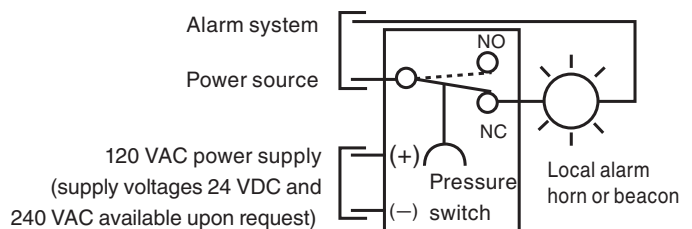


#### WPSA

Terminal block connections



Wiring configuration



### Technical Data

#### General specifications

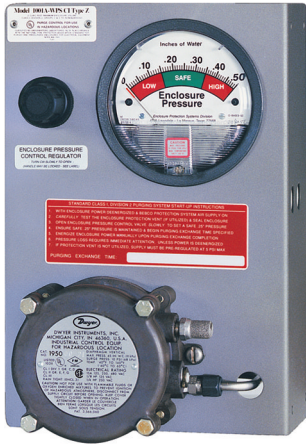
Series	1001A
System	Type Y Purge , Type Z Purge

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## Technical Data

Hazardous environment	gas or dust
<b>Electrical specifications</b>	
Connection	Terminal blocks
<b>Output</b>	
Output I	-WPS-
Output type	Switch contacts
Contact loading	120 VAC @ 15 A
Output II	-WPSA-
Output type	Switch contacts
Contact loading	120/220 VAC; 24 VDC @ 10 A; 125 VDC @ 50 mA power requirements: 24 / 120 / 240 VDC @ 3 / 4 / 11 watts
<b>Pneumatic parameters</b>	
Protective gas supply	instrument grade air or inert gas
Pressure requirement	5 - 120 psi (With EPV-1 vent. Systems installed without vent must be equipped with redundant regulator set to 5 psi max.)
Safe pressure	Setpoint: Class I: 0.25" (6.35 mm); Class II: 1.0" (25.4 mm) Flow rate: 0.1 - 3.5 SCFH (2.8 - 99 l/hr)
<b>Ambient conditions</b>	
Ambient temperature	-29 ... 49 °C (-20.2 ... 120.2 °F)
<b>Mechanical specifications</b>	
Connection type	System supply fitting: 1/4" tube fitting Enclosure supply fitting: 1/4" tube fitting Enclosure reference fitting: 1/4" tube fitting Switch conduit port size: 1/2" FPT
Material	Regulator body: zinc w/enamel finish Regulator handle: polycarbonate Enclosure pressure gauge: alum. w/enamel finish Tube fitting: 316 ss forged body Tubing: 316 ss 1/4" .035 welded System nameplate: silk screened Lexan® &ss Fastener hardware: alum. &stainless steel Mounting plate: 316 14 ga #3 brush ss EXP pressure switch body: anodized cast aluminum Enclosure warning nameplate: silk screened ss
Mass	1001A-LPS* 2.3 kg (5 lb) 1001A-WPS* 4.5 kg (10 lb)
<b>International approvals</b>	
FM approval	Type Y LPS: Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, and G WPS: Class I, Division 1, Groups C, D; Class II, Division 1, Groups E, F, and G WPSA: Class I, Division 1, Groups A, B, C, D Type Z LPS: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups E, F, and G WPS: Class I, Division 2, Groups C, D; Class II, Division 2, Groups E, F, and G WPSA: Class I, Division 2, Groups A, B, C, D
UL approval	
cULus	Type Y LPS: Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, and G WPS: Class I, Division 1, Groups C, D; Class II, Division 1, Groups E, F, and G WPSA: Class I, Division 1, Groups A, B, C, D Type Z LPS: Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups E, F, and G WPS: Class I, Division 2, Groups C, D; Class II, Division 2, Groups E, F, and G WPSA: Class I, Division 2, Groups A, B, C, D

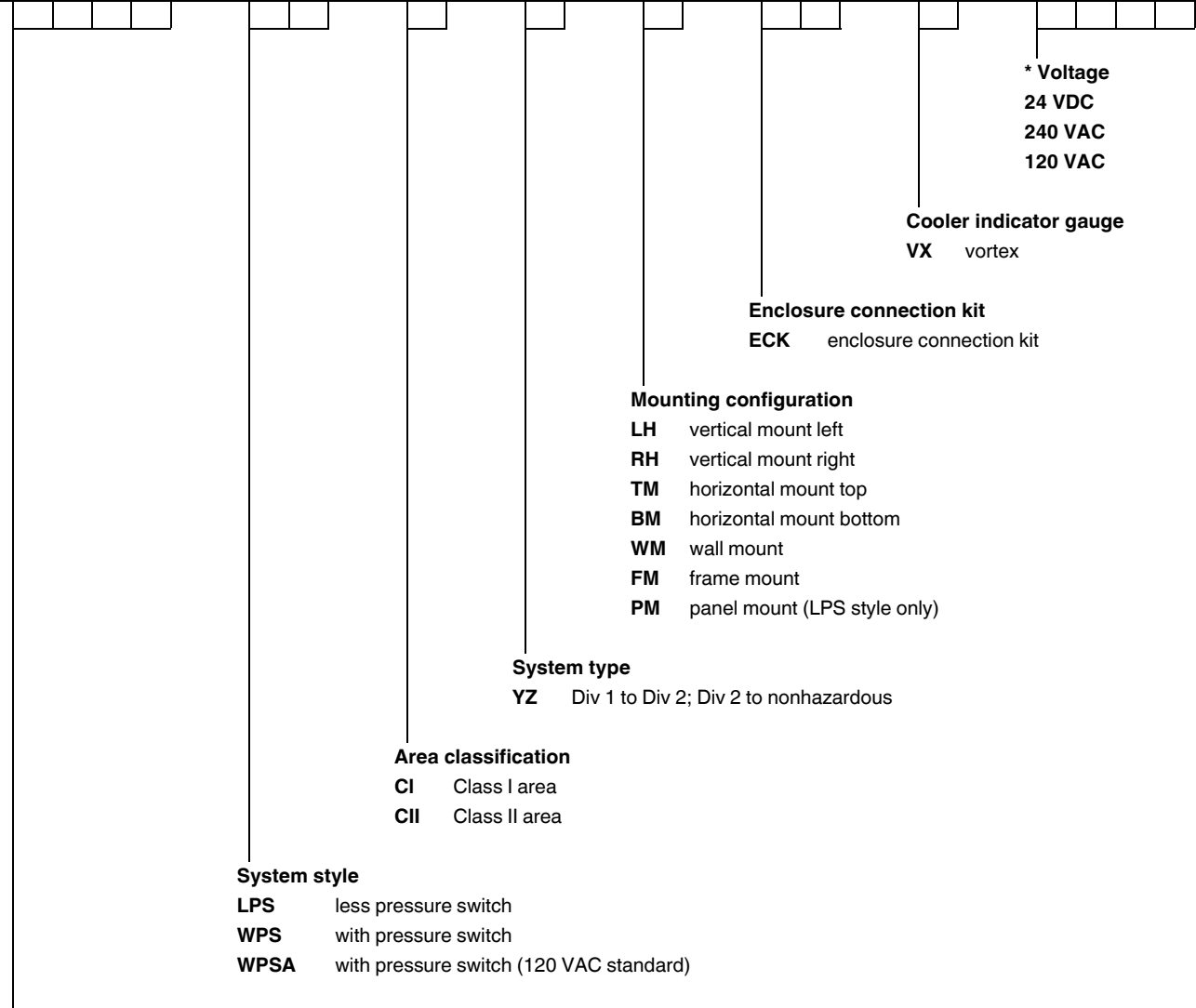
Assembly



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**Type Code**

**1 0 0 1 A - L P S - C I - Y Z - L H - E C K - V X - 2 4 V D C**



\* Voltage  
24 VDC  
240 VAC  
120 VAC

Cooler indicator gauge  
VX vortex

Enclosure connection kit  
ECK enclosure connection kit

Mounting configuration  
LH vertical mount left  
RH vertical mount right  
TM horizontal mount top  
BM horizontal mount bottom  
WM wall mount  
FM frame mount  
PM panel mount (LPS style only)

System type  
YZ Div 1 to Div 2; Div 2 to nonhazardous

Area classification  
CI Class I area  
CII Class II area

System style  
LPS less pressure switch  
WPS with pressure switch  
WPSA with pressure switch (120 VAC standard)

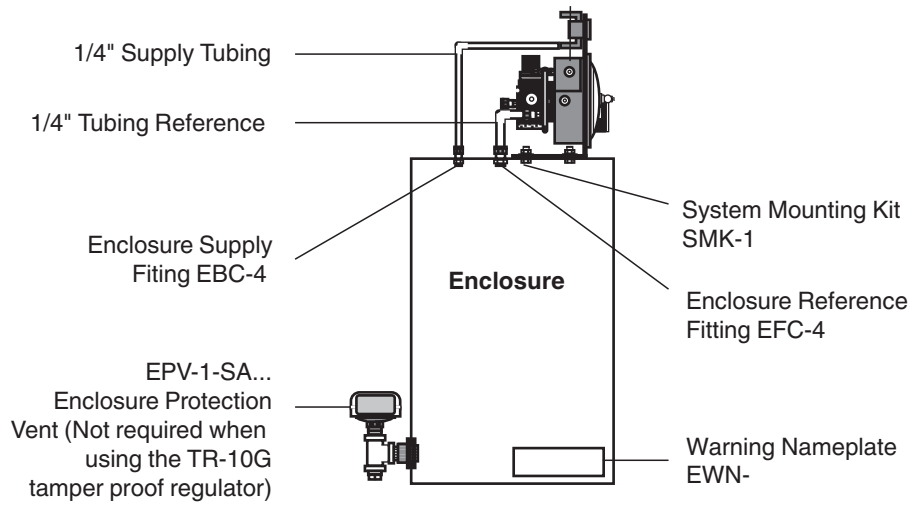
1001A series model number

\* only for WPSA option

**Additional Information**

**Assembly**

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**Dimensions**

Overall system dimensions			
LPS / WPS	LH - left hand	RH - right hand	TM - top mount
Height	7 / 12	7 / 12	7 / 8
Width	8 / 8	8 / 8	8 / 13.375
Depth	5.5 / 7.25	5.5 / 7.25	5.5 / 7.25
LPS / WPS	BM - bottom mount	WM - wall mount	FM & PM - surface
Height	7 / 8	7 / 12	9 / 14
Width	8 / 13.375	8 / 8	10 / 10
Depth	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 - 8 h x 9 w WPS - 13 h x 9 w.  Height & Width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.			

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**System Accessories**

Factory installed fittings	
Part	Description
ECK-1001A	Enclosure Connection Kit26
Connection fittings	
Part	Description
EFC-4	1/4" flush connector
EBC-4	1/4" bulkhead connector
EPC-10	1/2" pipe connector
Additional items	
Part	Description
ILF-4	1/4" In-Line Filter Kit
SMK-1	Surface Mounting Kit (-LH-, -RH-, -TM-, -BM-, -WM- models)
SMK-4	Surface Mounting Kit (-FM-, -PM- models)
SMK-6	Surface Mounting Kit (-FM-, -PM- models)
PMK-1	Pipe Mounting Kit
GCK	Gauge Conversion Kit
EPSK-1	Explosion Proof Switch Kit (Class I areas)
EPSK-1A	Explosion Proof Switch Kit (Class I areas)
EPSK-2	Explosion Proof Switch Kit (Class II areas)
EPSK-2A	Explosion Proof Switch Kit (Class II areas)
GPSK-1	General-purpose Switch Kit (Class I areas)
GPSK-2	General-purpose Switch Kit (Class II areas)
RAH	Remote Alarm Horn
RAB-1	Div. 1 Remote Alarm Beacon
RAB-2	Div. 2 Remote Alarm Beacon
LCK	"L" style conduit fitting kit
TCK	"T" style conduit fitting kit
Hex key regulator handles	
Part	Description
TR-10G	Tamper proof regulator with gauge
Warning nameplates	
Part	Description
EWN-1	Class I enclosure warning
EWN-2	Class II enclosure warning
ETW	Enclosure temperature warning
Installation & Operation Manual	
Part	Description
DOCT-1352	Installation and Operation Manual