

1002 Series control unit, Type Y and Z

BEBCO EPS*

1002



- NFPA 70, NFPA 496, ISA 12.4 standards
- Optional alarm output indicates air lock failure
- Type Y system certified for Class I, Division 1 to Division 2
- Type Z system certified for Class I, Division 2 to nonhazardous
- Enclosure volume up to 15 ft³

1002 Series



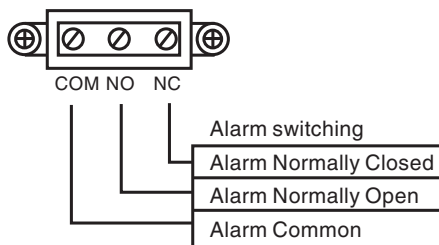
Function

The model 1002 is a Rapid Exchange® 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 remove and prevent flammable gas or vapor accumulations. The system accomplishes four air exchanges and maintains a "safe" (0.25") pressure. A Pepperl+Fuchs Model EPV-2 Enclosure Protection Vent is required for proper operation. 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.

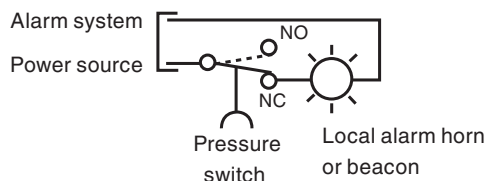
Connection

WPS

Terminal block connections

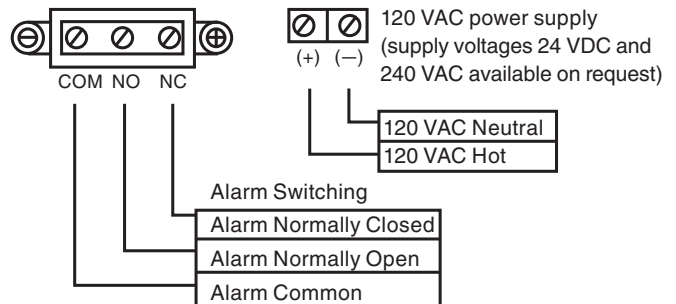


Wiring configuration

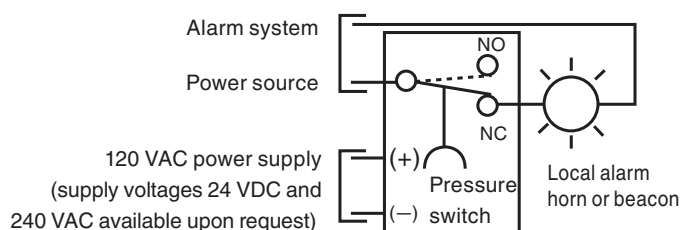


WPSA

Terminal block connections



Wiring configuration



Release date: 2025-05-15 Date of issue: 2025-05-15 Filename: t156402_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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PEPPERL+FUCHS

Dimensions

Overall system dimensions			
LPS / WPS	LH - left hand	RH - right hand	TM - top mount
Height	10 / 15	10 / 15	10 / 10
Width	11 / 11	11 / 11	11 / 16
Depth	6 / 7.5	6 / 7.5	6 / 7.5
LPS / WPS	BM - bottom mount	WM - wall mount	FM & PM - surface
Height	10 / 10	10 / 15	12 / 17
Width	11 / 16	11 / 11	13 / 13
Depth	6 / 7.5	7.75 / 9.25	5 / 6.5
Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: LPS - 11 h x 12 w WPS - 16 h x 12 w. Height & Width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.			

Technical Data

General specifications

Series	1002
System	Type Y Purge , Type Z Purge
Hazardous environment	gas

Electrical specifications

Connection	Terminal blocks
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Output

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

Pneumatic parameters

Protective gas supply	instrument grade air or inert gas
Pressure requirement	80 - 120 psi
Safe pressure	Setpoint: 0.25" (6.35 mm) Flow rate: 0.1 - 3.5 SCFH (2.8 - 99 l /hr)

Operating conditions

Process conditions	
Capacity and filtration	1.5 oz @ 20 μ
Exchange pressure	3" - 5"

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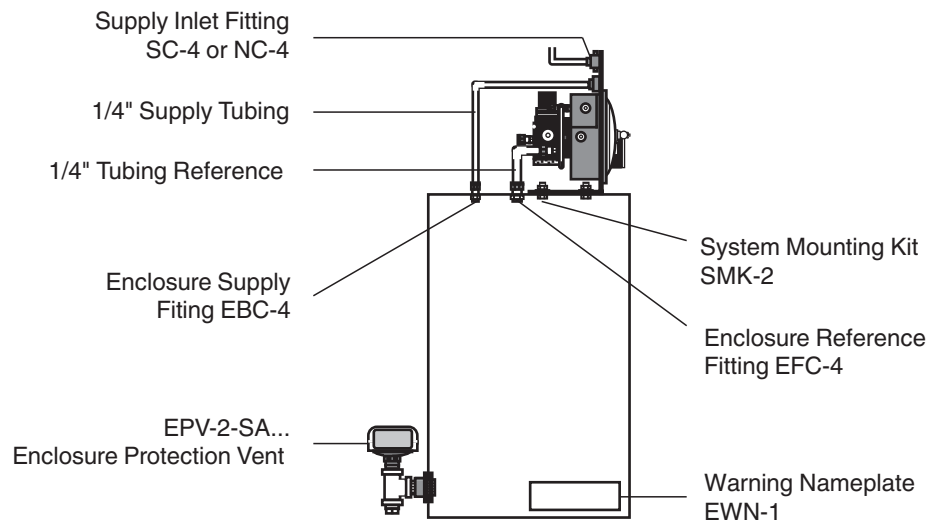
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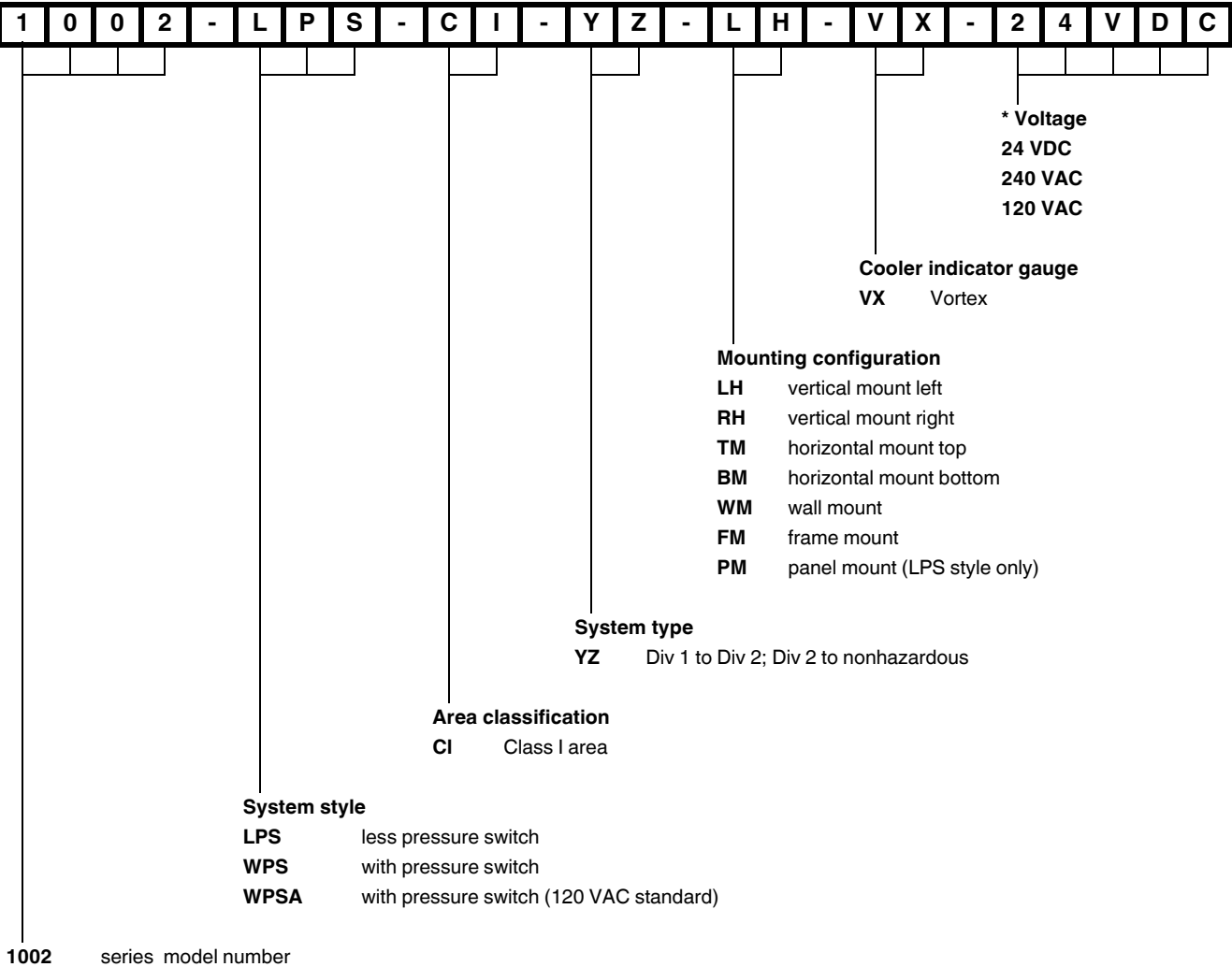
Technical Data

Exchange flow rate	4 SCFM / 240 SCFH (With regulator set to 60 psi min. during exchange)
Exchange time	1 min / ft ³
Ambient conditions	
Ambient temperature	-29 ... 49 °C (-20.2 ... 120.2 °F)
Mechanical specifications	
Connection type	System supply port: 1/2" FPT Enclosure supply port: 1/2" FPT Enclosure reference fitting: 1/4" tube Switch conduit port size: 1/2" FPT
Material	Filter regulator body: zinc w/enamel finish Regulator handle & bowl: polycarbonate Enclosure pressure gauge: alum. w/enamel finish Rapid Exchange® gauge: poly case and brass tube Tube fittings & valves: 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	1002-LPS-* 4.5 kg (10 lb) 1002-WPS* 6.8 kg (15 lb)
International approvals	
FM approval	Type Y LPS: Class I, Division 1, Groups A, B, C, D WPS: Class I, Division 1, Groups C, D WPSA: Class I, Division 1, Groups A, B, C, D Type Z LPS: Class I, Division 2, Groups A, B, C, D WPS: Class I, Division 2, Groups C, D 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 WPS: Class I, Division 1, Groups C, D WPSA: Class I, Division 1, Groups A, B, C, D Type Z LPS: Class I, Division 2, Groups A, B, C, D WPS: Class I, Division 2, Groups C, D WPSA: Class I, Division 2, Groups A, B, C, D

Assembly



Type Code



* only for WPSA option

Accessories

Connection fittings	
Part	Description
NC-4	1/4" ninety connector
SC-4	1/4" straight connector
EFC-4	1/4" flush connector
EBC-4	1/4" bulkhead connector
EPC-12	3/4" pipe connector
Additional items	
Part	Description
SMK-2	Surface Mounting Kit (-LH-, -RH-, -TM-, -BM-, -WM- models)
SMK-8	Surface Mounting Kit (-FM-, -PM- models)
EPSK-1	Explosion Proof Switch Kit (Class I areas)
EPSK-1A	Explosion Proof Switch Kit (Class I areas)
GPSK-1	General-purpose Switch Kit (Class I 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

Warning nameplates	
Part	Description
EWN-1	Class I enclosure warning
ETW	Enclosure temperature warning
Installation & Operation Manual	
Part	Description
DOCT-1355	Installation and Operation Manual