

**Description**

Model 1012 is a Rapid Exchange® 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 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.

**Operation**

In accordance with system instructions, start-up requires air supply to be engaged and enclosure power to be deenergized. The enclosure protection vent must be tested and the enclosure(s) must be sealed. The enclosure pressure control valve is then used to set a safe reading on the enclosure pressure indicator. When safe pressure is stable, the Rapid Exchange control valve must be fully engaged. Upon completion of the Rapid Exchange cycle, (five minutes minimum) the Rapid Exchange control valve must be disengaged to return to a safe enclosure pressure. Power can then be energized to the protected enclosure(s). Loss of safe pressure requires immediate attention, unless power is deenergized. System installation may be enhanced with a stand-alone Pepperl+Fuchs Model EPSK explosion proof switch kit to provide form "C" contacts for audible or visual alarm systems.

**System Specifications**

System Dimensions:	See page 22
Shipping Weight:	10 lb
Temp. Range:	-20 °F to +120 °F
Supply Pressure Range:	80 - 120 psi
Capacity & Filtration:	1.5 oz @ 20 Micron
Supply Requirements:	clean air or inert gas
Safe Press. Setpoint:	0.25"
Safe Press. Flow Rate:	* 0.1 - 3.5 SCFH
Exchange Pressure:	3" - 5"
Exchange Flow Rate:	** 4 SCFM/240 SCFH
Exchange Time:	1 min/ft <sup>3</sup>
System Supply Port:	1/4" FPT
Enclosure Supply Fitting:	1/4" tube fitting
Enclosure Reference Fitting:	1/4" tube fitting

\* Enclosure integrity determines actual flow rate  
 \*\* With regulator set to 60 psi min. during exchange. Rapid Exchange® is a Registered Trademark of Pepperl+Fuchs.

**Model 1012**



Front View

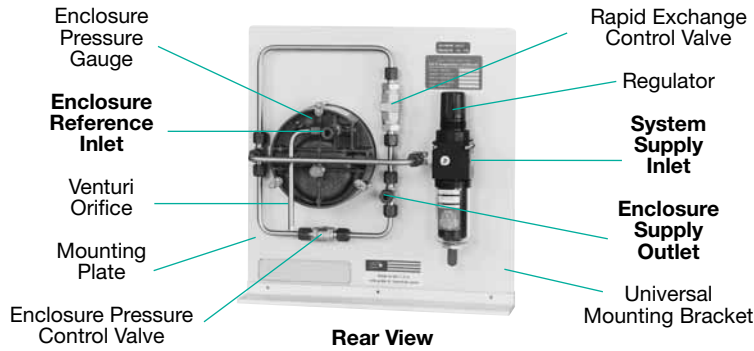


**Standard Model Applications**

<b>Model Number:</b>	<b>1012-CI Type Z</b>
Designation:	Purging System
Enclosure Volume:	15 ft <sup>3</sup> max.
UL Certified:	Cl. I, Div. 2, Group A-D
Rating Reduction:	Div. 2 to Nonhazardous

1000 SERIES

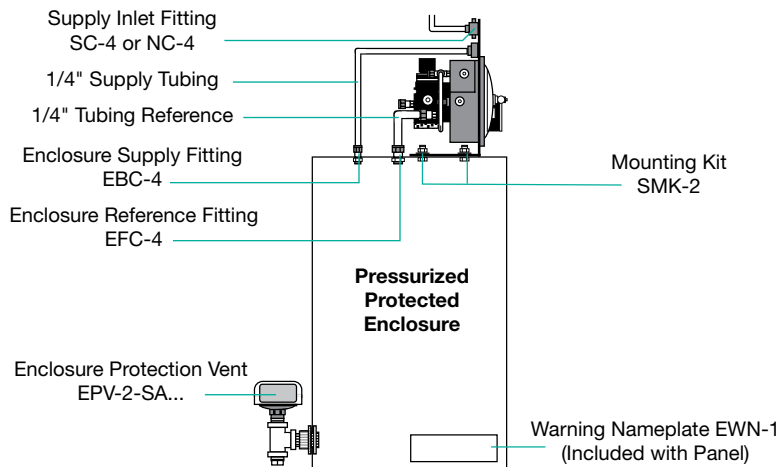
Type Z



Rear View

CONNECTION POINTS SHOWN ABOVE IN BOLD TEXT ON SYSTEM DIAGRAM

## System Accessories Diagram

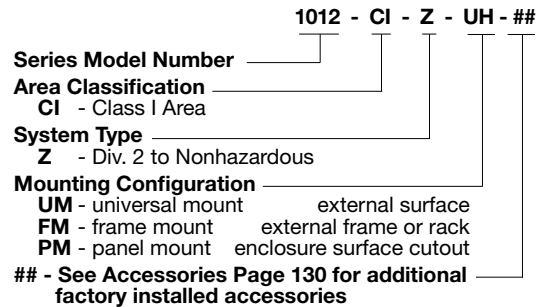


## Material Specifications

Filter Regulator Body:	Zinc w/Enamel Finish
Regulator Handle & Bowl:	Polycarbonate
Enclosure Pressure Gauge:	Alum. w/Enamel Finish
Rapid Exchange Valve:	Poly Case & Brass Tube
Tube Fittings & Valves:	316 SS Forged Body
Tubing:	316 SS 1/4" .035 Welded
System Nameplates:	Silkscreen & Lexan®
Fastener Hardware:	Alum. & Stainless Steel
Mounting Plate & Bracket:	Anodized Aluminum
Enclosure Warning Nameplate:	Silk screened SS

Lexan® is a registered trademark of the General Electric Company

## Model Number Designations



FM & PM configuration mounting plates include four (4) 1/4" mounting holes at each corner, on 5/16" centers.

## Model 1012 System Accessories (See accessories page for complete details)

### CONNECTION FITTINGS

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

SMK-1 or -4	System Mounting Kit
EPSK-1	Explosion Proof Switch Kit

GPSK-1	General-purpose Switch Kit
RAH	Remote Alarm Horn
RAB-2	Div. 2 Remote Alarm Beacon

### ENCLOSURE PROTECTION VENTS

ONE VENT REQUIRED WITH EACH SYSTEM

EPV-2-SA-00	Straight w/Spark Arrestor
EPV-2-SA-90	Rt Angle w/Spark Arrestor

### WARNING NAMEPLATES

EWN-1	Class I Enclosure Warning
ETW	Enclosure Temperature Warning
<b>INSTALLATION &amp; OPERATION MANUAL</b>	
129-0206	Inst. & Operation Manual

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

Overall System Dimensions						
Configuration	UM - left hand	UM - right hand	UM - top mount	UM - bottom mount	FM - frame mount	PM - panel mount
Height	12	12	12.25	12.25	12	12
Width	12.25	12.25	12	12	12	12
Depth	5	5	5	5	5	5

Dimensions in inches. Mounting dimensions available upon request. FM & PM panel cutout dimensions: 11.625h x 11.625w  
Height & width dimensions reflect mounting plate measurements. Depth dimension reflects overall measurement of system, including components.