

# 1012 Series control unit, Type Y and Z

## 1012

BEBCO EPS\*



- NFPA 70, NFPA 496, ISA 12.4 standards
- Optional alarm output indicates air lock failure
- Type Z system certified for Class I, Division 2 to nonhazardous
- Enclosure volume up to 15 ft<sup>3</sup>

### 1012 Series



### Function

The model 1012 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.

### Technical Data

| General specifications    |   |
|---------------------------|---|
| Series                    | 1012  |
| System                    | Type Y Purge , Type Z Purge   |
| Hazardous environment     | gas   |
| Pneumatic parameters      |   |
| Protective gas supply     | instrument grade air or inert gas   |
| Pressure requirement      | 80 - 120 psi  |
| Safe pressure             | Setpoint: 0.25" (6.35 mm)<br>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"   |
| Exchange flow rate        | 4 SCFM / 240 SCFH<br>(With regulator set to 60 psi min. during exchange)  |
| Exchange time             | 1 min / ft <sup>3</sup>   |
| Ambient conditions        |   |
| Ambient temperature       | -29 ... 49 °C (-20.2 ... 120.2 °F)  |
| Mechanical specifications |   |
| Connection type           | System supply port: 1/4" FTP<br>Enclosure supply fitting: 1/4" tube fitting<br>Enclosure reference fitting: 1/4" tube fitting   |
| Material                  | Filter regulator body: zinc w/enamel finish<br>Regulator handle & bowl: polycarbonate<br>Enclosure pressure gauge: alum. w/enamel finish<br>Rapid Exchange® gauge: poly case and brass tube<br>Tube fittings & valves: 316 ss forged body<br>Tubing: 316 ss 1/4" .035 welded<br>System nameplate: silk-screened Lexan® & 6061 aluminum<br>Fastener hardware: alum. & stainless steel<br>Mounting plate: 6061 Aluminum<br>Enclosure warning nameplate: silk-screened stainless steel |

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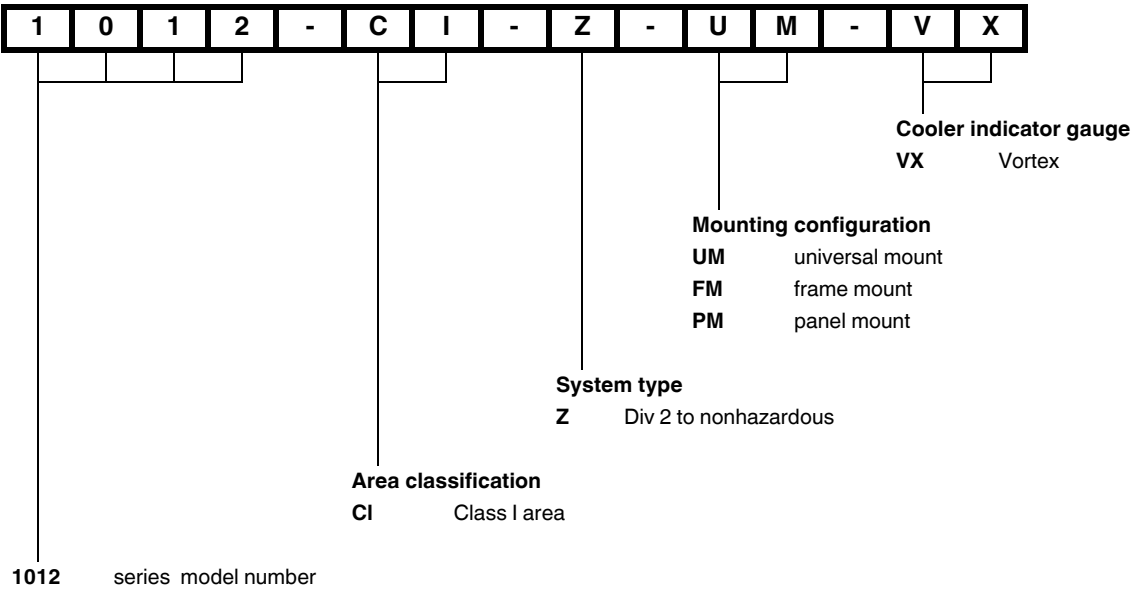
## Technical Data

|                                |  |
|--------------------------------|--|
| Mass                           | 4.5 kg (10 lb)                         |
| <b>International approvals</b> |  |
| UL approval                    |  |
| cULus                          | Class I, Division 2, Groups A, B, C, D |

## Assembly

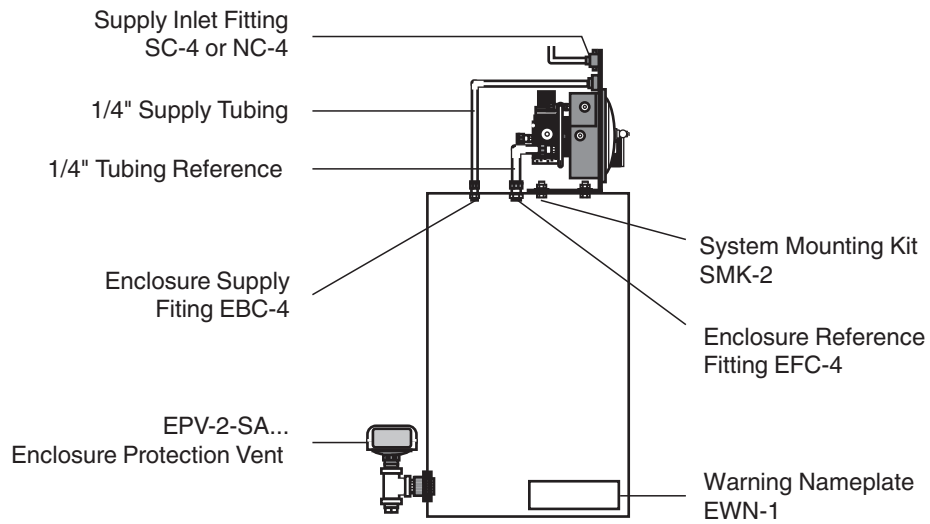


**Type Code**



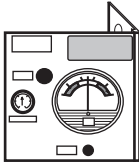
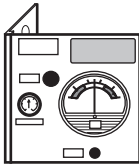
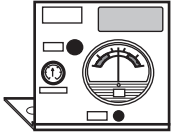
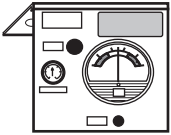
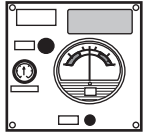
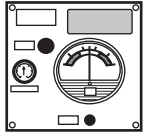
**Additional Information**

**Assembly**



**Dimensions**

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|  |   |  |   |
|--|---|--|---|
| Overall system dimensions  |  |  |  |
| Configuration  | UM - left hand  | UM - right hand  | UM - top mount  |
| Height   | 12  | 12   | 12.25   |
| Width  | 12.25   | 12.25  | 12  |
| Depth  | 5   | 5  | 5   |
|  |  |  |  |
| Configuration  | UM - bottom mount   | FM - frame mount   | PM - panel mount  |
| Height   | 12.25   | 12   | 12  |
| Width  | 12  | 12   | 12  |
| Depth  | 5   | 5  | 5   |
| <p>Dimensions in inches. Mounting dimensions available upon request.<br/>                     FM &amp; PM panel cutout dimensions: 11.625 h x 11.625 w.</p> <p>Height &amp; Width dimensions reflect mounting plate measurements.<br/>                     Depth dimension reflects overall measurement of system, including components.</p> |   |  |   |

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**System 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-1                           | Surface Mounting Kit (-LH-, -RH-, -TM-, -BM-, models) |
| SMK-4                           | 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-2                           | Div. 2 Remote Alarm Beacon                            |
| Warning nameplates              |   |
| Part                            | Description   |
| EWN-1                           | Class I enclosure warning                             |
| ETW                             | Enclosure temperature warning                         |
| Installation & Operation Manual |   |
| Part                            | Description   |
| DOCT-1361                       | Installation and Operation Manual                     |