

3004 Series control unit, Type Y and Z

3004

BEBCO EPS*



- NFPA 496, ISA 12.4
- Optional alarm output indicates air lock failure
- Optional differential pressure switch for Class I, Group A-D, hazardous area locations
- Type Y system certified for Class I, Division 1 to Division 2
- Type Z system certified for Class I, Division 2 to nonhazardous area
- Enclosure volume up to 7.08 m³ (250 ft³)

3004 Series purge and pressurization system



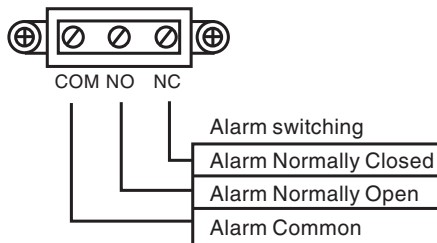
Function

The model 3004 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 the required volume exchanges and maintains a safe pressure. A Pepperl+Fuchs Model EPV-4 enclosure protection vent is required for proper operation. This process reduces the hazardous (classified) area rating within protected enclosure(s), in accordance with the NEC - NFPA 70, NFPA 496, ISA 12.4.

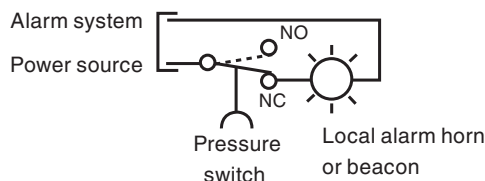
Connection

WPS

Terminal block connections

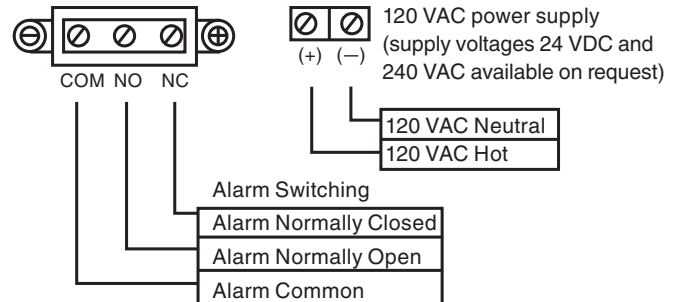


Wiring configuration

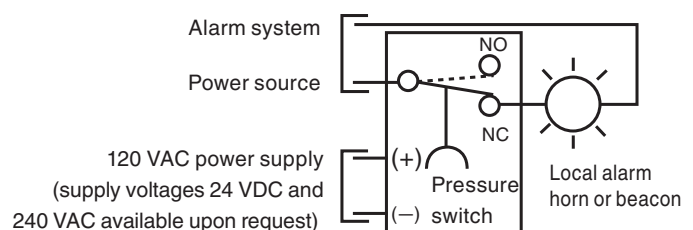


WPSA

Terminal block connections



Wiring configuration



Technical Data

General specifications

Series	3004 Series
System	Type Y Purge , Type Z Purge

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

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PEPPERL+FUCHS

Technical Data

Hazardous environment	gas
Electrical specifications	
Connection	Terminal blocks
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 (5.5 - 8.3 bar) For WPSA models using the optional inline filter, the max. supply pressure is 80 psi.
Safe pressure	Setpoint: 0.25" (6.35 mm) Flow rate: 0.1 - 3.5 SCFH (2.8 - 99 l /hr)
Purge flow and enclosure pressure rate	30 SCFM /1800 SCFH (850 l /m / 50976 l/hr) (With regulator set to 60 psi min. during exchange)
Operating conditions	
Process conditions	
Exchange time	4 volume exchange rate: 1 min / 7.5 ft ³ (212.4 l/m) 5 volume exchange rate: 1 min / 6.0 ft ³ (169.9 l/m)
Ambient conditions	
Ambient temperature	-29 °C - 49 °C (-20 °F - 120 °F) -18 °C - 49 °C (-0 °F - 120 °F) For WPSA models using the "B" option (with BUNA-N diaphragm)
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	Regulator body: zinc w/enamel finish Regulator handle & bowl: polycarbonate Enclosure pressure gauge: alum. w/enamel finish Rapid Exchange® gauge: poly & nickel plated Tube fitting: 316 SS forged body Tubing: 316 SS 1/4" .035 welded Fastener hardware: alum. & stainless steel System face plate: 316 14 ga #3 brush SS System mounting flange: 316 SS tumble finish Manifold body: anodized aluminum Manifold valves: 316 SS Mfr. ID nameplate: silkscreen Lexan®
Mass	3004-LPS-* 5.4 kg (12 lb) 3004-WPS-* 7.7 kg (17 lb)
International approvals	
FM approval	Type Y LPS: Class I, Division 1, Groups A, B, C, D WPS: Class 1, 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 1, 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 1, 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 1, Division 2, Groups C, D WPSA: Class I, Division 2, Groups A, B, C, D

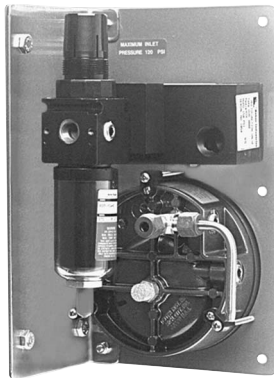
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

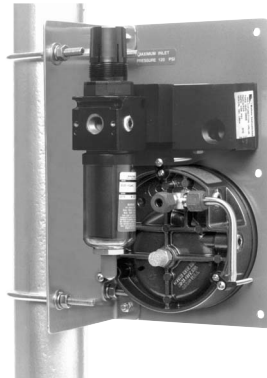
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 **PEPPERL+FUCHS**

Mounting

VM configuration mounting options



Model 3004-LPS-CI-YZ-VML
Flange mounted to flat vertical
surface with Model SMK-1
fastener kit

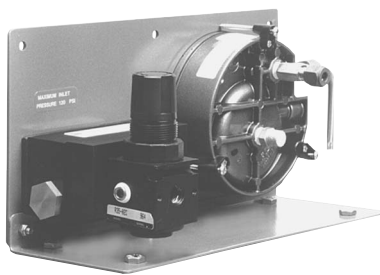


Model 3004-LPS-CI-YZ-VML
Flange mounted to vertical
2" pipe stand with
Model PMK-1 fastener kit

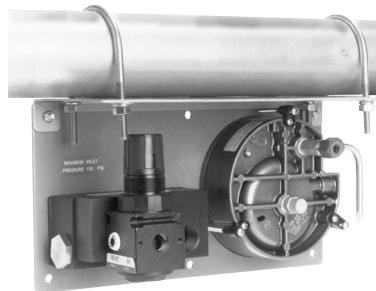


Model 3004-LPS-CI-YZ-VM
Frame or panel* mounted
through cutout in suitable surface
with Model SMK-6m

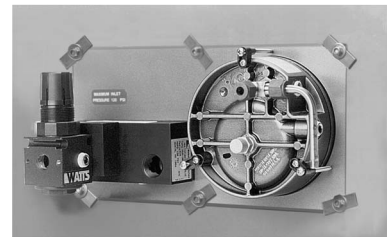
HM configuration mounting options



Model 3004-LPS-CI-YZ-HMT
Flange mounted to flat horizontal
surface with Model SMK-1 fastener kit



Model 3004-LPS-CI-YZ-HMB
Flange mounted to horizontal 2" pipe
stand with Model PMK-1 fastener kit

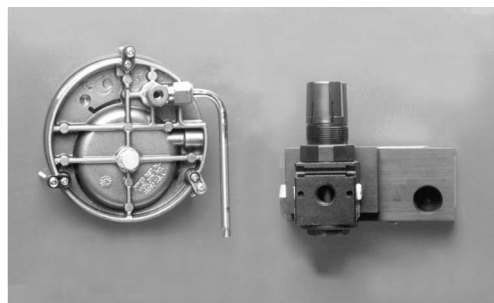


Model 3004-LPS-CI-YZ-HM
Frame or panel* mounted through
cutout in suitable surface with
Model SMK-6m fastener kit

CK configuration mounting options



Front view



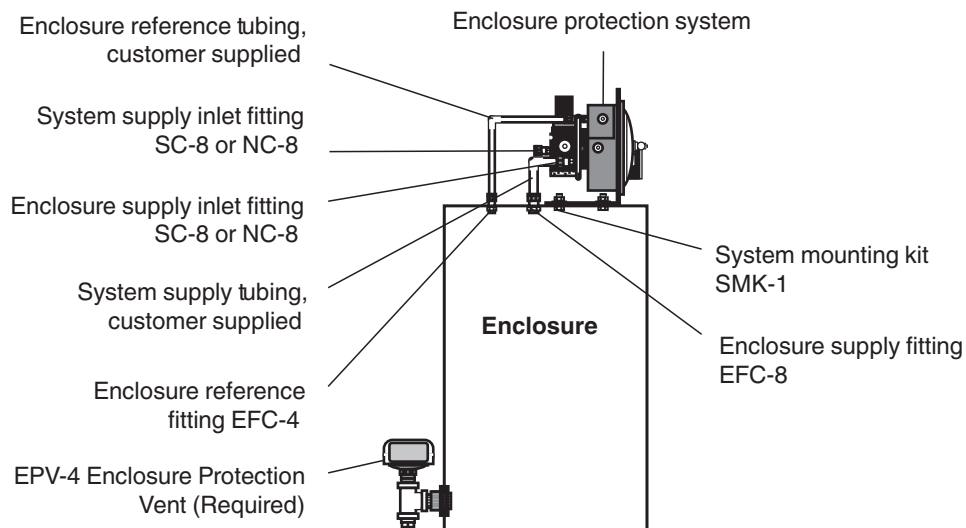
Rear view

Model 3004-LPS-CI-YZ-CK
Rear view of frame or panel* mount through cutout in suitable surface with
supplied fasteners

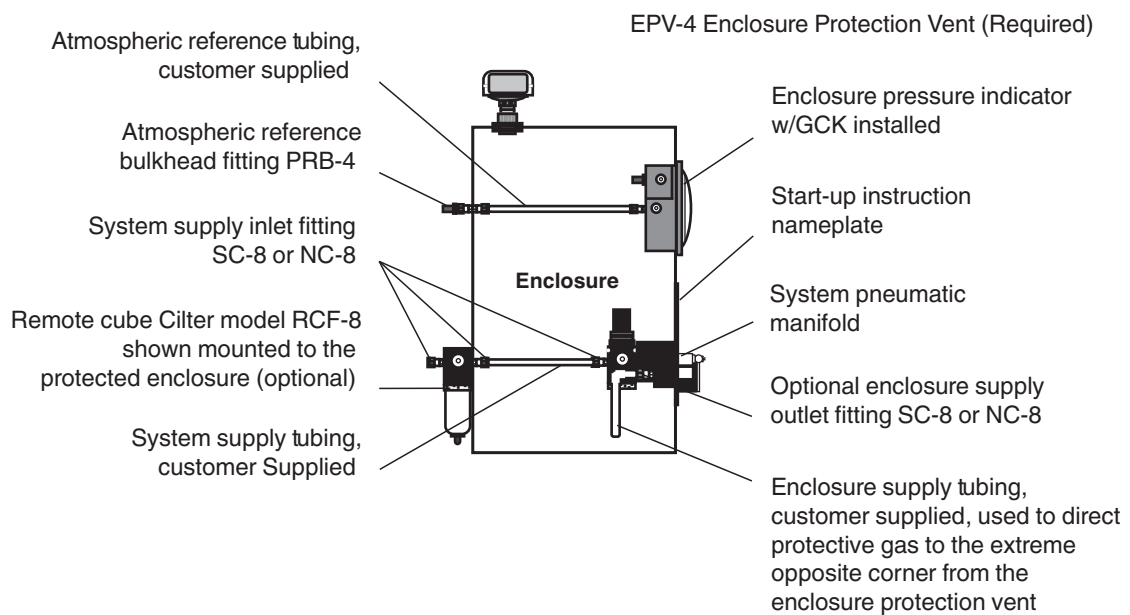
Additional Information

Assembly

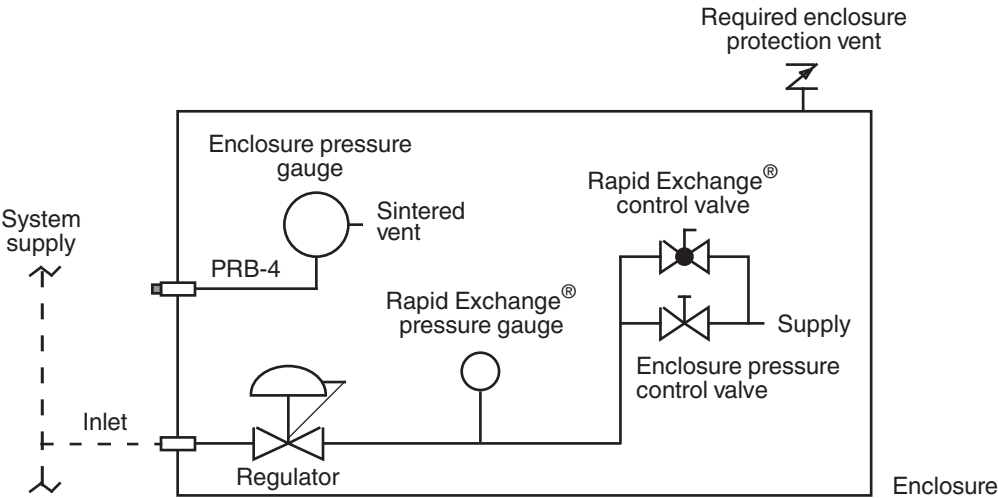
External Mount



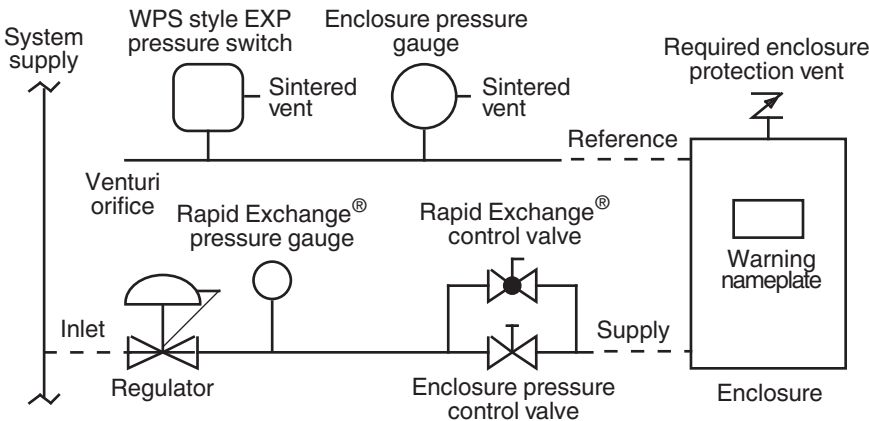
Internal Mount



Standard Pneumatic Installation Diagram

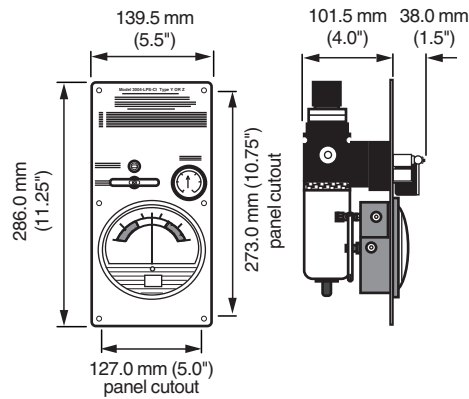


Panel Mount Installation Diagram

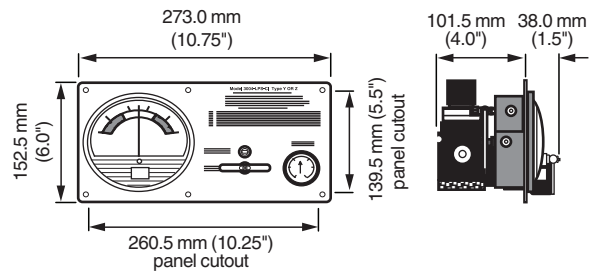


Dimensions

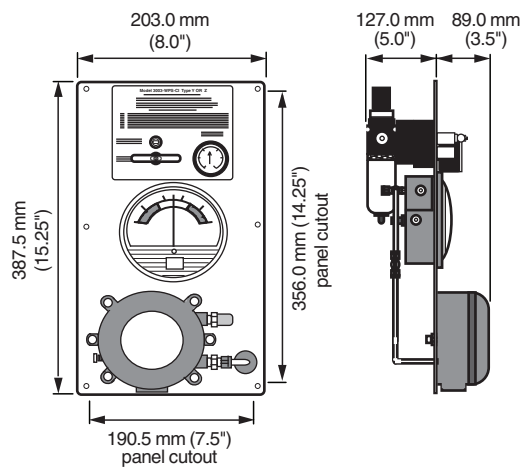
3004-LPS-CL-**-VM**-**-*****



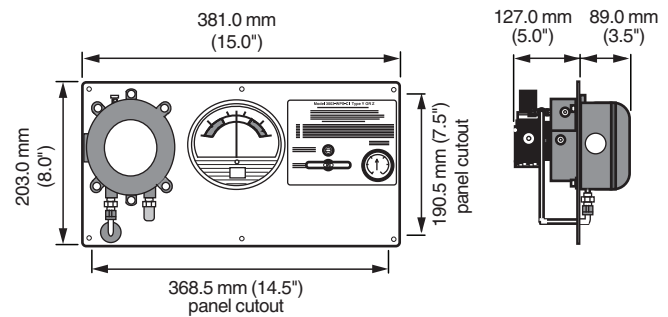
3004-LPS-CL-**-HM**-**-*****



3004-WPS*-CL-**-VM**-**-*****

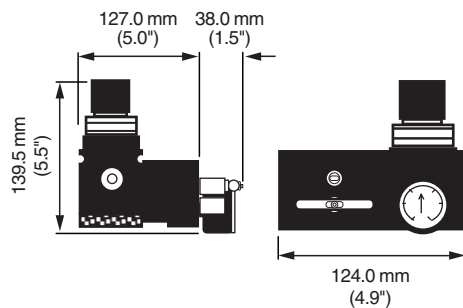


3004-WPS*-CL-**-HM**-**-*****

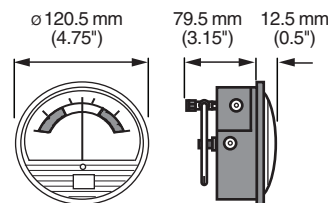


Component kit

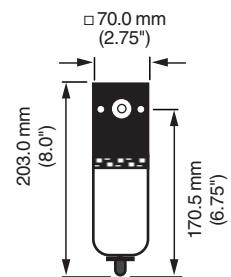
Pneumatic manifold



Enclosure pressure gauge



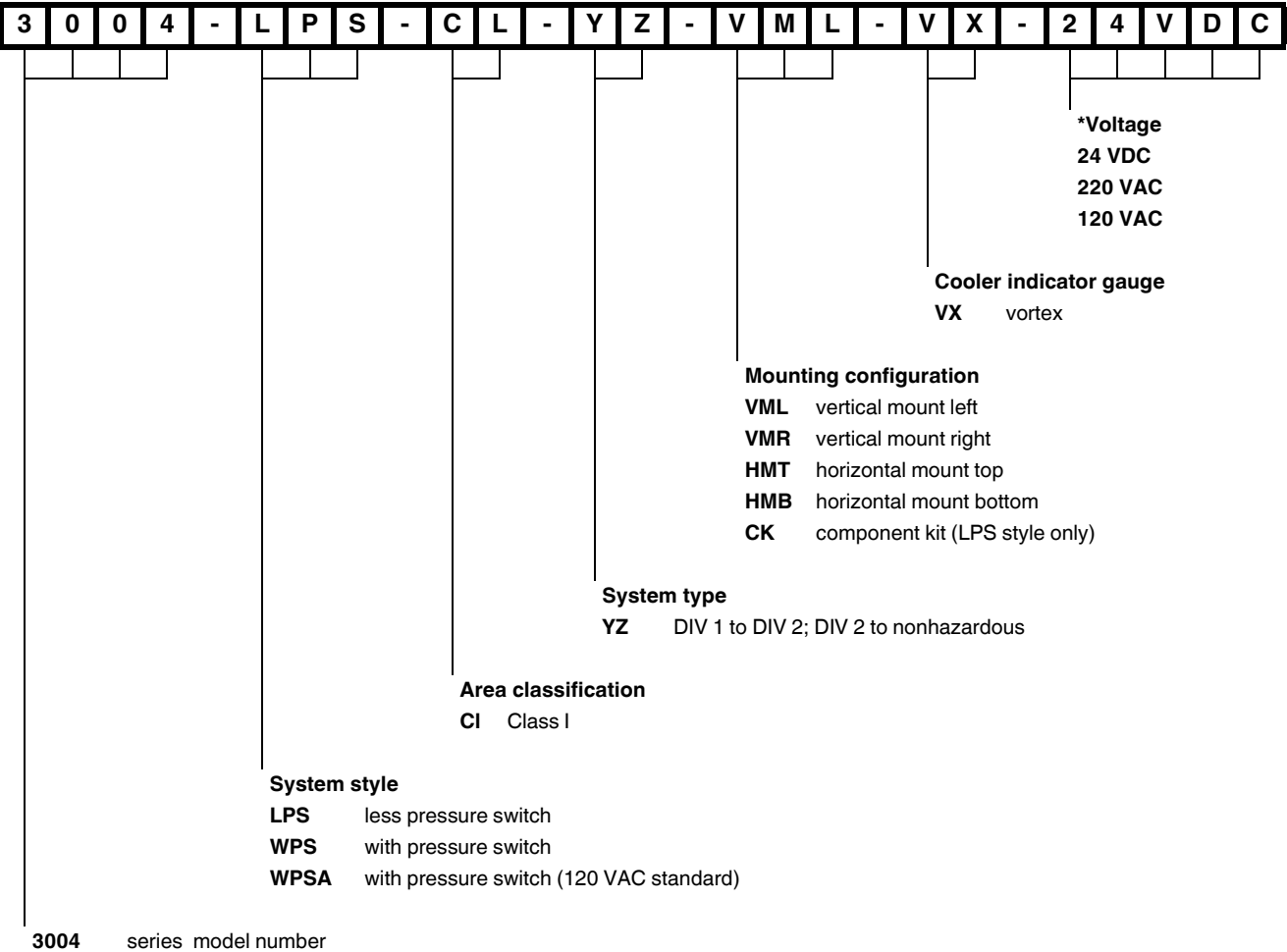
RCF-8



Accessories

System Accessories	
Connection fittings	
Part	Description
NC-8	1/2" T x 1/2" P ninety connector
SC-8	1/2" T x 1/2" P straight connector
EFC-4	1/4" flush connector
EBC-4	1/4" bulkhead connector
EFC-8	1/2" flush connector
EBC-8	1/2" bulkhead connector
EPC-14	1 - 1/2" pipe connector
Additional items	
Part	Description
SMK-1	Surface Mounting Kit - Flange
SMK-6m	Surface Mounting Kit - Frame/Panel
PMK-1	Pipe Mounting Kit
GCK	Gauge Conversion Kit
ILF-8	1/2" In-Line Filter Kit
RCF-8	1/2" Remote Cube Filter
EPSK-1	Explosion Proof Switch Kit (GRP C, D)
EPSK-1A	Explosion Proof Switch Kit (GRP A-D)
GPSK-1	General-purpose Switch Kit
RAH	Remote Alarm Horn
RAB-1	Div. 1 Remote Alarm Beacon
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-1370	Installation and Operation Manual

Type Code



* only for WPSA option

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