Product Description

Model YZ101A is a Type Y or Z pressurization unit designed to protect electrical equipment in Class I and Class II Hazardous Areas. When connected to a supply of protective gas, the Model YZ101A will supply, regulate and monitor the protective gas supply to a protected electrical enclosure. Type Z applications reduce the hazardous area rating inside the enclosure from Division 2 / Zone 2 to Unclassified. This allows general purpose equipment to operate in Division 2 / Zone 2 areas. Type Y applications reduce the hazardous area rating inside the enclosure from Division 1 / Zone 1 to Division 2 / Zone 2. This allows Division 2 / Zone 2 equipment to operate in Division 1 / Zone 1 Hazardous Areas.

Unit Operation

Prior to Start-Up: Ensure Protected Enclosure Power is OFF, Enclosure Pressure Control Regulator is closed, Protective Gas Supply is ON and alarm system is activated (if utilized). If utilized, test Purge Vent for proper operation. Class II Area Start-Up: Remove all dust from protected enclosure. Close and seal Protected Enclosure. Open Enclosure Pressure Control Regulator until a "Safe" reading is shown on the Enclosure Pressure Gauge. Class I Area Start-Up: Close and seal Protected Enclosure. Open Enclosure Pressure Control Regulator until a "Safe" reading is shown on the Enclosure Pressure Gauge. Allow unit to purge protected enclosure for the required time marked on Unit Start Up Instructions or for 5 minutes, minimum. Confirm protected enclosure "Safe" pressure is stable. Energize protected enclosure equipment. Loss of "Safe" pressure requires immediate attention. Protected enclosure power should be de-energized if "Safe" pressure cannot be restored within a reasonable amount of time.

Unit Specifications

Class I & II Maximum Enclosure Volumes: 2 &10 cubic feet Universal Unit Weight: 3.5 lbs. 8.0 & 8.0 lbs. Vertical & Horizontal Unit Weights: Operating Temp. Range: -20° F - 120° F Protective Gas Supply: * Air or Inert Gas Supply Pressure w/ RR-4 Regulator: 5 psi maximum Supply Pressure w/ PV-2 Vent: 80 - 125 psi maximum Unit Supply Connection: 1/4" tube fitting 1/4" tube fitting **Enclosure Supply:** Enclosure Reference: 1/4" tube fitting Safe Enclosure Pressure: 0.25" w.c. Safe Pressure Flow Rate: ** 0.1 - 3.5 SCFH per cubic foot Switch Set Point on Decrease: 0.15" w.c. ± 0.02" Pressure Switch Conduit Port: 1/2" FPT Pressure Switch Contact Ratings: See EPSK Bulletin

- * Air must contain no more than trace amounts of flammable vapors.
- ** Enclosure integrity determines safe pressure flow rate.

Recommended Accessories

Redundant safety devices are necessary to protect the enclosure from excessive pressure of the protective gas supply in accordance with the requirements of NFPA 496, EN 50016 and IEC 60079-02.

Best Purging Systems Corporation therefore strongly recommends a Model RR-4 Redundant Regulator installed upstream of this unit's enclosure pressure control regulator. As an alternative, a Model PV-2 Spark Arresting Purge Vent may be installed on the protected enclosure or the last enclosure of a pressurized enclosure array to relieve excessive pressure created by other sources.



Model YZ101A

Type Y & Z Pressurization Unit

Class I Applications Class II Applications Up To 2 Cubic Feet Up to 10 Cubic Feet

Technical Bulletin YZ101A TB-R0

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Universal Mount Unit less Pressure Switch for any side or panel mounting



Vertical Mount Unit with Pressure Switch for left or right side mounting





Horizontal Mount Unit with Pressure Switch for top or bottom side mounting



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Rear Views



Horizontal Mount Unit with Pressure Switch



Universal Mount Unit less Pressure Switch

Unit Supply Connection

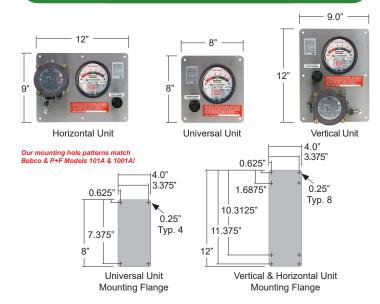
Enclosure

Pressure Control Regulator Enclosure

Supply

Connection **Vertical Mount Unit** with Pressure Switch

Unit & Mounting Flange Dimensions



Model Number Matrix

Typical Model Number: YZ 101A-CI/CII-L-U-

Division 1 / Zone 1 to Division 2 / Zone 2

Z - Division 2 / Zone 2 to Unclassified

Unit Series

101A - Purging & Pressurization Unit

Area Classification -

CI/CII - Class I & Class II Areas

Pressure Switch Option -

- Less Switch

- Class I, Group C & D / Class II, Group E, F & G Switch

- Class I, Group A, B, C & D Switch

Mounting Configuration -

V - Vertical - Universal H - Horizontal

Group B Switch Voltage (omit if not applicable)

24 - 24 VDC 120 - 120 VAC 240 - 240 VAC

Please contact a Sales Associate for specifications and factory integration of Model PMGK Panel Mount Gasket Kits for Universal Mounting Configurations

Material Specifications

Unit Mounting Plate & Flange: 304 Stainless Steel 316 Stainless Steel Tube Fitting Bodies & Ferrules: Tube Fitting Compression Nut Coating: Molybdenum Disulfide Enclosure Pressure Gauge Lens: Acrylic w/ Neoprene O-Ring Enclosure Pressure Gauge Body: Cast Aluminum w/ Epoxy Finish Fastener Kit Sealing Screws: 316 Stainless Steel w/ Neoprene O-Ring Fastener Kit Sealing Washers: 18-8 Stainless Steel w/ Neoprene Washer Fastener Kit Locking Nuts: 316 Stainless Steel w/ Nylon Insert Atmospheric Reference: 316 Stainless Steel Body & 304 SS Element Indelible Unit Nameplates: 3M Lexan™ w/3M VSB™Adhesive Pressure Control Regulator Head & Knob: Acetal Polymer Plastic

Zinc w Buna N Elastomers Pressure Control Regulator Body:

Pressure Switch Body: Cast Aluminum w/ Epoxy Finish

Pressure Switch Body Bolts: Zinc Plated Steel Mica Silver Pressure Switch Contacts:

Enclosure Pressure Gauge & Switch Diaphragms:

Unit & Protected Enclosure Accessory Bulletin Hyperlinks



Spark Arresting Pressure Vents Prevents excessive unit regulator failure

Model PV



Model RR **Redundant Supply Pressure Regulators** Prevents excessive enclosure pressure upon unit regulator failure



Model BCK Unit & Bulkhead Connection Kits Connects the unit and multiple protected enclosures of an array



Model RAB & RAH Remote Alarm **Beacons & Horns** Signals loss of rotected enclosure



Model EPSK **Enclosure Pressure** Switch Kits

Complements universal mount units to activate audible or visual alarms



Model EPWN & ETWN Pressure & Temperature Warning Nameplates

Provides NFPA required markings for protected enclosure doors and covers



Flurosilicone

Model PMGK **Panel Mount Gasket Kits**

Converts universal mount units for panel mounting in protected enclosures

One (1) Model EPWN Enclosure Warning Nameplate & One (1) Unit Flange or Panel Mount Fastener Kit furnished with all Units. All specifications subject to change without notice. Warranty & Liability policies available upon request.

safe pressure