



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. Vertical & Horizontal Unit Weights: 8.0 & 8.0 lbs. 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. ** 0.1 - 3.5 SCFH per cubic foot Safe Pressure Flow Rate: Switch Set Point on Decrease: 0.15" w.c. ± 0.02" 1/2" FPT Pressure Switch Conduit Port: 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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Horizontal Mount Unit with Pressure Switch



Universal Mount Unit less Pressure Switch

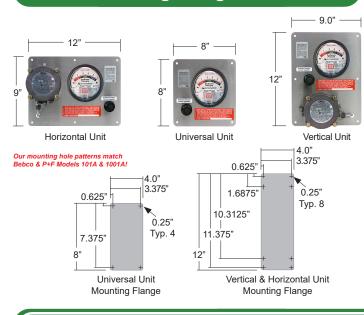
Unit Supply Connection Enclosure Pressure Control Regulator **Enclosure** Supply

Vertical Mount Unit with Pressure Switch

YZ 101A-CI/CII-L-U-

Unit & Mounting Flange Dimensions

Gauge



Model Number Matrix

Typical Model Number:

Unit Type Υ - Division 1 / Zone 1 to Division 2 / Zone 2

Z - Division 2 / Zone 2 to Unclassified

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 -

 Universal V - Vertical 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 Tube Fitting Bodies & Ferrules: 316 Stainless Steel 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

316 Stainless Steel Body & 304 SS Element Atmospheric Reference: Indelible Unit Nameplates: 3M Lexan™ w/ 3M VSB™Adhesive Pressure Control Regulator Head & Knob: Acetal Polymer Plastic

Pressure Control Regulator Body:

Zinc w Buna N Elastomers Pressure Switch Body: Cast Aluminum w/ Epoxy Finish Pressure Switch Body Bolts:

Pressure Switch Contacts:

Enclosure Pressure Gauge & Switch Diaphragms:

Zinc Plated Steel Mica Silver

Unit & Protected Enclosure Accessory Bulletin Hyperlinks



Model PV **Spark Arresting** Pressure Vents Prevents excessive enclosure pressure upon unit regulator failure



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 protected 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

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

Model YZ101B is a Type Y or Z pressurization unit designed to protect electrical equipment in Class II Hazardous Areas. When connected to a supply of protective gas, the Model YZ101B 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. 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. 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 II Maximum Enclosure Volume: 50 cubic feet Universal Unit Weight: 5 lbs. Vertical & Horizontal Unit Weights: 9.0 & 9.5 lbs. -20° F - 120° F Operating Temp. Range: * Air or Inert Gas Protective Gas Supply: Supply Pressure w/ RR-6 Regulator: 5 psi maximum Supply Pressure w/ PV-3 Vent: 80 - 125 psi maximum 3/8" tube fitting Unit Supply Connection: **Enclosure Supply:** 3/8" tube fitting Enclosure Reference: 1/4" tube fitting Safe Enclosure Pressure: 0.25" w.c. ** 0.1 - 3.5 SCFH per cubic foot Safe Pressure Flow Rate: Switch Set Point on Decrease: 0.15" w.c. ± 0.02" 1/2" FPT Pressure Switch Conduit Port: 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-6 Redundant Regulator installed upstream of this unit's enclosure pressure control regulator. As an alternative, a Model PV-3 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 YZ101B

Type Y & Z Pressurization Unit

Class II Applications
Up to 50 Cubic Feet

Technical Bulletin YZ101B 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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Horizontal Mount Unit with Pressure Switch



Universal Mount Unit less Pressure Switch

Unit Supply Connection Enclosure Pressure Control Regulator

Enclosure Supply

Vertical Mount Unit with Pressure Switch

YZ 101B-CII-L-U

Unit & Mounting Flange Dimensions

Enclosure

Pressure

Reference

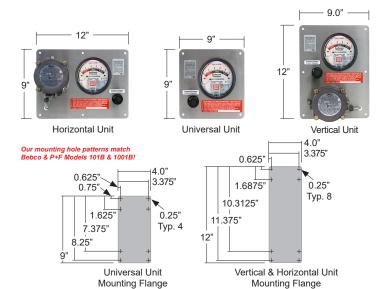
Connection

Enclosure

Pressure

Gauge

Reference



Model Number Matrix

Connection

Division 1 / Zone 1 to Division 2 / Zone 2

Z - Division 2 / Zone 2 to Unclassified

Unit Series

101B - Pressurization Unit

Typical Model Number:

Area Classification -

- Class II Areas

Pressure Switch Option

- Less Switch

- Class II, Group E, F & G Switch

Mounting Configuration -

V - Vertical **U** - Universal

H - Horizontal

Special Option (omit if not applicable)

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: Molvbdenum Disulfide Enclosure Pressure Gauge Lens: Acrylic w/ Neoprene O-Ring Cast Aluminum w/ Epoxy Finish Enclosure Pressure Gauge Body: 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 3M Lexan™ w/ 3M VSB™ Adhesive Indelible Unit Nameplates: Acetal Polymer Plastic Pressure Control Regulator Head & Knob:

Pressure Control Regulator Body: Zinc w Buna N Elastomers Pressure Switch Body:

Cast Aluminum w/ Epoxy Finish Pressure Switch Body Bolts: Zinc Plated Steel Pressure Switch Contacts: Mica Silver

Enclosure Pressure Gauge & Switch Diaphragms:

Unit & Protected Enclosure Accessory Bulletin Hyperlinks



Model PV Spark Arresting Pressure Vents Prevents excessive enclosure pressure upon unit regulator failure



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 protected enclosure safe pressure



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

Model YZ101C is a Type Y or Z pressurization unit designed to protect electrical equipment in Class II Hazardous Areas. When connected to a supply of protective gas, the Model YZ101C 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. 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. 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 II Maximum Enclosure Volume: 250 cubic feet Universal Unit Weight: 5.5 lbs. Vertical & Horizontal Unit Weights: 10.5 & 10.0 lbs. -20° F - 120° F Operating Temp. Range: Protective Gas Supply: * Air or Inert Gas Supply Pressure w/ RR-8 Regulator: 5 psi maximum Supply Pressure w/ PV-4 Vent: 80 - 125 psi maximum 1/2" tube fitting Unit Supply Connection: **Enclosure Supply:** 1/2" tube fitting Enclosure Reference: 1/4" tube fitting Safe Enclosure Pressure: 0.25" w.c. ** 0.1 - 3.5 SCFH per cubic foot Safe Pressure Flow Rate: 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-8 Redundant Regulator installed upstream of this unit's enclosure pressure control regulator. As an alternative, a Model PV-4 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 YZ101C Type Y & Z Pressurization Unit

Class II Applications Up to 250 Cubic Feet

Technical Bulletin YZ101C 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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Horizontal Mount Unit with Pressure Switch



Universal Mount Unit less Pressure Switch

Unit Supply Connection

Enclosure Supply Connection

Vertical Mount Unit with Pressure Switch

YZ 101C-CII-L-U

Unit & Mounting Flange Dimensions

Enclosure

Pressure

Reference

Connection

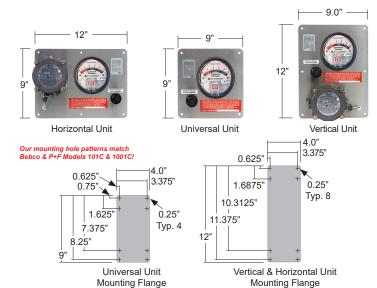
Enclosure

Pressure

Gauge

Atmospheric

Reference



Model Number Matrix

Typical Model Number:

Enclosure

Pressure

Control

Regulator

Division 1 / Zone 1 to Division 2 / Zone 2 Υ

Z - Division 2 / Zone 2 to Unclassified

Unit Series

101C - Pressurization Unit

Area Classification

- Class II Areas

Pressure Switch Option

- Less Switch

- Class II, Group E, F & G Switch

Mounting Configuration -

V - Vertical Universal

H - Horizontal

Special Option (omit if not applicable)

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 Tube Fitting Bodies & Ferrules: 316 Stainless Steel 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

Pressure Control Regulator Body: Zinc w Buna N Elastomers 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



Model PV **Spark Arresting Pressure Vents** Prevents excessive enclosure pressure upon



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 protected enclosure safe pressure



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

Model YZ102 is a Type Y or Z pressurization unit designed to protect electrical equipment in Class I Hazardous Areas. When connected to a supply of protective gas and utilized in conjunction with a Model PV-2 Spark Arresting Purge Vent, the Model YZ102 will supply, regulate and monitor the protective gas supply to a protected electrical enclosure and accomplish purging of the protected enclosure in an expedited manner. 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, Protective Gas Supply is ON, Filter Regulator is set to 60 PSI, and alarm system is activated (if utilized). Test Purge Vent for proper operation. Start-Up: Close and seal Protected Enclosure. Open Enclosure Pressure Control Valve until a "Safe" reading is shown on the Enclosure Pressure Gauge. Open Purge Control Value and allow unit to purge protected enclosure for the required time marked on Unit Start Up Instructions or for 5 minutes, minimum and then close Purge Control Valve. Confirm protected enclosure "Safe" pressure is stable. Energize protected enclosure equipment. Loss of "Safe" pressure requires immediate attention. De-energized power if "Safe" pressure cannot be restored within a reasonable amount of time.

Product Specifications

Maximum Enclosure Volume: 15 cubic feet Universal Unit Weight: 8.5 lbs Vertical & Horizontal Unit Weights: 13.5 & 13.5 lbs. Operating Temp. Range: -20° F - 120° F Protective Gas Supply: * Air or Inert Gas Unit Supply Pressure: 80 - 125 psi maximum Unit Supply Connection: 1/4" tube fitting Enclosure Supply: 1/4" tube fitting 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 Purging Enclosure Pressure: ** 5" - 8" w.c. Purging Flow Rate: 4 SCFM / 240 SCFH @ 60 psi 4 Volume Purge Time: 1 minute per 1.0 cubic foot 5 Volume Purge Time: 1 minute per 0.8 cubic foot Switch Set Point on Decrease: 0.15" w.c. ± 0.02" Pressure Switch Conduit Port: 1/2" FPT See EPSK Bulletin Pressure Switch Contact Ratings:

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

Required Accessory

A Model PV-2 Spark Arresting Vent is required for proper operation of the purging cycle and 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 requires the purchase of a Model PV-2 Spark Arresting Purge Vent with this unit for installation on the protected enclosure or the last enclosure of an enclosure array.



Model YZ102 Type Y & Z Purging

& Pressurization Unit

Class I Applications Up To 15 Cubic Feet

Technical Bulletin YZ102 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





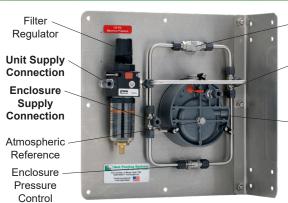
Horizontal Mount Unit with Pressure Switch for top or bottom side mounting



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Horizontal Mount Unit with Pressure Switch



Universal Mount Unit less Pressure Switch

Purge Control Valve

Enclosure Pressure Reference Connection

Enclosure Pressure Gauge

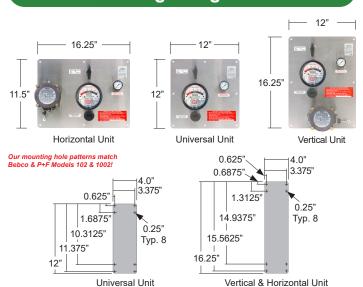


Vertical Mount Unit with Pressure Switch

YZ 102-CI-L-U

Unit & Mounting Flange Dimensions

Valve



Model Number Matrix

Unit Type - Division 1 / Zone 1 to Division 2 / Zone 2 - Division 2 / Zone 2 to Unclassified Unit Series · - Purging & Pressurization Unit Area Classification -- Class I

Pressure Switch Option

L - Less Switch W - Class I, Group C & D Switch

Typical Model Number:

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

Mounting Configuration -

V - Vertical H - Horizontal U - Universal

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

Mounting Plate, Flange & Atmospheric Reference: 304 Stainless Steel Valve & Fitting Bodies, Ferrules & Unit Fasteners: 316 Stainless Steel Tube Fitting Compression Nut Coating: Molybdenum Disulfide Enclosure Pressure Gauge Lens: Acrylic w/ Neoprene O-Ring Cast Aluminum w/ Epoxy Finish Enclosure Pressure Gauge Body: Fastener Kit Sealing Screws: 316 Stainless Steel w/ Neoprene O-Ring Fastener Kit Sealing Washers: 18-8 Stainless Steel w/ Neoprene Washer 316 Stainless Steel w/ Nylon Insert Fastener Kit Locking Nuts:

Atmospheric Reference: 316 Stainless Steel Body & 304 SS Element Indelible Unit Nameplates: 3M Lexan™ w/ 3M VSB™ Adhesive Supply Regulator Head & Bowl: Acetal Polymer Plastic Supply Regulator Body: Zinc w Buna N Elastomers Supply Pressure Gauge: Painted Steel Case, Plastic Lens, Brass Body Pressure Switch Body: Cast Aluminum w/ Epoxy Finish Pressure Switch Bolts & Contacts: Zinc Plated Steel & Mica Silver Enclosure Pressure Gauge & Switch Diaphragms: Flurosilicone

Unit & Protected Enclosure Accessory Hyperlinks



Mounting Flange

Model PV **Spark Arresting Pressure Vents** Prevents excessive enclosure pressure upon unit regulator failure



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



Mounting Flange

Model RAB & RAH Remote Alarm Beacons & Horns Signals loss of protected 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



Model PMGK **Panel Mount Gasket Kits** Converts universal mount

markings for protected units for panel mounting in protected enclosures

Model YZ103 is a Type Y or Z pressurization unit designed to protect electrical equipment in Class I Hazardous Areas. When connected to a supply of protective gas and utilized in conjunction with a Model PV-3 Spark Arresting Purge Vent, the Model YZ103 will supply, regulate and monitor the protective gas supply to a protected electrical enclosure and accomplish purging of the protected enclosure in an expedited manner. 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, Protective Gas Supply is ON, Filter Regulator is set to 60 PSI, and alarm system is activated (if utilized). Test Purge Vent for proper operation. Start-Up: Close and seal Protected Enclosure. Open Enclosure Pressure Control Valve until a "Safe" reading is shown on the Enclosure Pressure Gauge. Open Purge Control Value and allow unit to purge protected enclosure for the required time marked on Unit Start Up Instructions or for 5 minutes, minimum and then close Purge Control Valve. Confirm protected enclosure "Safe" pressure is stable. Energize protected enclosure equipment. Loss of "Safe" pressure requires immediate attention. De-energized power if "Safe" pressure cannot be restored within a reasonable amount of time.

Product Specifications

Maximum Enclosure Volume: 75 cubic feet Universal Unit Weight: 9.5 lbs. 14.0 & 14.0 lbs. Vertical & Horizontal Unit Weights: -20° F - 120° F Operating Temp. Range: Protective Gas Supply: * Air or Inert Gas Unit Supply Pressure: 80 - 125 psi maximum Unit Supply Connection: 3/8" tube fitting 3/8" tube fitting **Enclosure Supply:** Enclosure Reference: 1/4" tube fitting Safe Enclosure Pressure: 0.25" w.c. ** 0.1 - 3.5 SCFH per cubic foot Safe Pressure Flow Rate: Purging Enclosure Pressure: ** 5" - 8" w.c. Purging Flow Rate: 10 SCFM / 600 SCFH @ 60 psi 4 Volume Purge Time: 1 minute per 2.5 cubic foot 5 Volume Purge Time: 1 minute per 2.0 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 and purging enclosure pressure.

Required Accessory

A Model PV-3 Spark Arresting Vent is required for proper operation of the purging cycle and 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 requires the purchase of a Model PV-3 Spark Arresting Purge Vent with this unit for installation on the protected enclosure or the last enclosure of an enclosure array.



Model YZ103 Type Y & Z Purging & Pressurization Unit

Class I Applications
Up To 75 Cubic Feet

Technical Bulletin YZ103 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





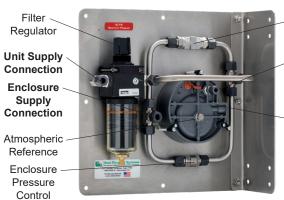
Horizontal Mount Unit with Pressure Switch for top or bottom side mounting



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Horizontal Mount Unit with Pressure Switch



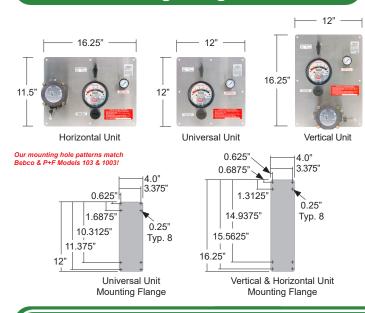
Universal Mount Unit less Pressure Switch

Enclosure Pressure Reference Connection Enclosure Pressure

Vertical Mount Unit with Pressure Switch

Unit & Mounting Flange Dimensions

Valve



Model Number Matrix

Purge

Control Valve

Gauge

Typical Model Number: YZ 103-CI-L-U Unit Type - Division 1 / Zone 1 to Division 2 / Zone 2 - Division 2 / Zone 2 to Unclassified Unit Series - Purging & Pressurization Unit Area Classification -- Class I **Pressure Switch Option** L - Less Switch - Class I, Group C & D Switch - Class I, Group A, B, C & D Switch **Mounting Configuration** · U - Universal V - Vertical 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

Mounting Plate, Flange & Atmospheric Reference: 304 Stainless Steel Valve & Fitting Bodies, Ferrules & Unit Fasteners: 316 Stainless Steel Molybdenum Disulfide Tube Fitting Compression Nut Coating: 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

3M Lexan™ w/ 3M VSB™Adhesive Indelible Unit Nameplates: Acetal Polymer Plastic Supply Regulator Head & Bowl: Supply Regulator Body: Zinc w Buna N Elastomers Supply Pressure Gauge: Painted Steel Case, Plastic Lens, Brass Body Cast Aluminum w/ Epoxy Finish Pressure Switch Body: Pressure Switch Bolts & Contacts: Zinc Plated Steel & Mica Silver Enclosure Pressure Gauge & Switch Diaphragms: Flurosilicone

Unit & Protected Enclosure Accessory Hyperlinks



Model PV **Spark Arresting Pressure Vents** 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 protected enclosure

safe pressure



Atmospheric Reference:

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



316 Stainless Steel Body & 304 SS Element

Model PMGK **Panel Mount Gasket Kits** Converts universal mount

units for panel mounting in protected enclosures

Phn: 844.PURGE IT

Model YZ104 is a Type Y or Z pressurization unit designed to protect electrical equipment in Class I Hazardous Areas. When connected to a supply of protective gas and utilized in conjunction with a Model PV-4 Spark Arresting Purge Vent, the Model YZ104 will supply, regulate and monitor the protective gas supply to a protected electrical enclosure and accomplish purging of the protected enclosure in an expedited manner. 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, Protective Gas Supply is ON, Filter Regulator is set to 60 PSI, and alarm system is activated (if utilized). Test Purge Vent for proper operation. Start-Up: Close and seal Protected Enclosure. Open Enclosure Pressure Control Valve until a "Safe" reading is shown on the Enclosure Pressure Gauge. Open Purge Control Value and allow unit to purge protected enclosure for the required time marked on Unit Start Up Instructions or for 5 minutes, minimum and then close Purge Control Valve. Confirm protected enclosure "Safe" pressure is stable. Energize protected enclosure equipment. Loss of "Safe" pressure requires immediate attention. De-energized power if "Safe" pressure cannot be restored within a reasonable amount of time.

Product Specifications

Maximum Enclosure Volume: 250 cubic feet Universal Unit Weight: 14 0 lbs Vertical & Horizontal Unit Weights: 17.5 & 18.0 lbs. Operating Temp. Range: -20° F - 120° F Protective Gas Supply: * Air or Inert Gas Unit Supply Pressure: 80 - 125 psi maximum **Unit Supply Connection:** 1/2" tube fitting **Enclosure Supply:** 1/2" tube fitting 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 Purging Enclosure Pressure: ** 5" - 8" w.c. Purging Flow Rate: 30 SCFM / 1800 SCFH @ 60 psi 4 Volume Purge Time: 1 minute per 7.5 cubic foot 5 Volume Purge Time: 1 minute per 6.0 cubic foot Switch Set Point on Decrease: 0.15" w.c. ± 0.02" Pressure Switch Conduit Port: 1/2" FPT See EPSK Bulletin Pressure Switch Contact Ratings:

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

Required Accessory

A Model PV-4 Spark Arresting Vent is required for proper operation of the purging cycle and 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 requires the purchase of a Model PV-4 Spark Arresting Purge Vent with this unit for installation on the protected enclosure or the last enclosure of an enclosure array.



Model YZ104 Type Y & Z Purging

& Pressurization Unit

Class I Applications Up To 250 Cubic Feet

Technical Bulletin YZ104 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





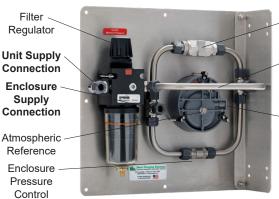
Horizontal Mount Unit with Pressure Switch for top or bottom side mounting



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Horizontal Mount Unit with Pressure Switch



Universal Mount Unit less Pressure Switch

Purge
Control
Valve
Enclosure
Pressure
Reference
Connection

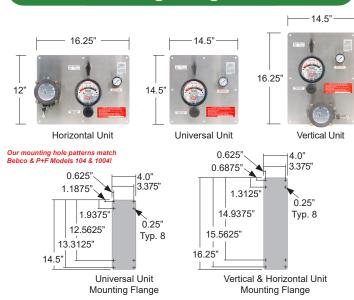
Enclosure Pressure Gauge



Vertical Mount Unit with Pressure Switch

Unit & Mounting Flange Dimensions

Valve



Model Number Matrix

Typical Model Number: <u>YZ 104-CI-L-U</u> **Unit Type** - Division 1 / Zone 1 to Division 2 / Zone 2 - Division 2 / Zone 2 to Unclassified Unit Series · - Purging & Pressurization Unit Area Classification -- Class I **Pressure Switch Option** L - Less Switch W - Class I, Group C & D Switch - Class I, Group A, B, C & D Switch **Mounting Configuration** -V - Vertical H - Horizontal U - Universal Group B Switch Voltage (omit if not applicable)

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

240 - 240 VAC

120 - 120 VAC

Material Specifications

Mounting Plate, Flange & Atmospheric Reference: 304 Stainless Steel Valve & Fitting Bodies, Ferrules & Unit Fasteners: 316 Stainless Steel 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: Indelible Unit Nameplates: 3M Lexan™ w/ 3M VSB™ Adhesive Supply Regulator Head & Bowl: Acetal Polymer Plastic Supply Regulator Body: Zinc w Buna N Elastomers Supply Pressure Gauge: Painted Steel Case, Plastic Lens, Brass Body Pressure Switch Body: Cast Aluminum w/ Epoxy Finish Pressure Switch Bolts & Contacts: Zinc Plated Steel & Mica Silver

Unit & Protected Enclosure Accessory Hyperlinks



Model PV
Spark Arresting
Pressure Vents
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 protected enclosure



24 - 24 VDC

Model EPSK
Enclosure Pressure
Switch Kits

Complements universal mount units to activate audible or visual alarms



Enclosure Pressure Gauge & Switch Diaphragms:

Model EPWN & ETWN Pressure & Temperature Warning Nameplates Provides NFPA required



Flurosilicone

Model PMGK
Panel Mount
Gasket Kits
Converts universal mount

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versal Provides NFPA required Converts universal mount ivate markings for protected units for panel mounting in larms enclosure doors and covers protected enclosures

REQUIRED COMPONENT Models YZ102, YZ103 & YZ104

OPTIONAL COMPONENT Models YZ101A, YZ101B & YZ101C

Product Description

The Model PV Purge Vent is a gravity operated enclosure pressure relieving device designed to relieve excess pressure inside a protected enclosure, while preventing any sparks or burning material from escaping into a classified location.

Model PV Purge Vents are designed for use exclusively with Best Purging Systems purge and pressurization products. Model PV is constructed of an aluminum cap, base and pipe fitting and features a stainless steel filter element and fasteners, to ensure maximum resistance against corrosive environments.

Model PV Purge Vents will begin to open when enclosure pressure exceeds approximately 0.8" w.c. and will fully open when enclosure pressure exceeds approximately 1.5".

All Model PV Purge Vents **MUST** be installed in a true vertical position for proper operation and are available in "T" (top mount) and "S" (side mount) configurations. The vents feature a conduit hub with sealing gasket to connect easily to a protected enclosure, or may be mounted remotely. - please contact factory for more details



Model PV

Spark Arresting Purge Vent Assembly

Designed Exclusively for use with Best Purging **Systems Purge & Pressurization Products**

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PV - 4 - T

PV - 3 - T

Top Mount Style Purge Vents









PV - 3 - S



PV - 2 - S

Side Mount Style Purge Vents



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	Purge Vent Dimensions		
- c	- c -	Vent Model	
CAUTION	CAUTION INFINITERED PER TIME UNIT ANNUAL PRIOR TO UNIT ORGAN DISCLA ACCESSIONY FOR USE IN AUGUS WINTERO A SALOCATION ST STANGE FOR PARISD AND PRESINANCE DISCLARED FOR EARTHOLE SALOCATION STANGE FOR PARISD AND PRESINANCE FOR MARIE AND PRESINANCE ROUGHERS FOR EARTHOLE WATER THE THE TOP THE USE WILL WAS ARROWN THE WAS ARROWN T	Hub Size	
INDICATE AND		A - Top Mnt. Hgt.	
		B - Side Mnt. Hgt.	
		C - Cap Diameter	
		D - Hub Knockout	
		E - Overall Width	
	E	Hub Size Indicates All vents require 4"	

Vent Model	PV-2	PV-3	PV-4		
Hub Size	3/4"	1 1/4"	1 1/2"		
A - Top Mnt. Hgt.	4.5"	4.5"	6.0"		
B - Side Mnt. Hgt.	6.5"	8"	10"		
C - Cap Diameter	2.5"	3.5"	5.5"		
D - Hub Knockout	1.125"	1.75"	2"		
E - Overall Width	5.25"	5.5"	7.75"		

Hub Size Indicates trade size. All dimensions in inches. All vents require 4" to 6" underside clearance for testing.

Technical Specifications

DV 2

DV 4

<u>PV-2</u>	<u>PV-3</u>	<u>PV-4</u>	
1 lb.	1.5 lbs.	2.5 lbs.	
1 lb.	2.5 lbs.	4 lbs.	
3/4"	1 1/4"	1 1/2"	
4 scfm	12 scfm	30 scfm	
*2.8" w.c.	3.2" w.c.	4.8" w.c.	
Operating Temperature Range:		-20°F to 120°F	
	1 lb. 1 lb. 3/4" 4 scfm *2.8" w.c.	1 lb. 1.5 lbs. 1 lb. 2.5 lbs. 3/4" 1 1/4" 4 scfm 12 scfm *2.8" w.c. 3.2" w.c.	

- * Enclosure Integrity determines actual Pressure
- ** 1/2" supply @ 100 psi, totally sealed test enclosure

Material Specifications

Vent Cap: Machined 3003 Aluminum Vent Base: Machined 3003 Aluminum Vent Cover: Seamless Drawn Aluminum Copper-Free Aluminum Mounting Hub: Spark Arresting Element: 80 micron 316 SS Fastening Hardware: 316 Stainless Steel Pipe Fittings: Aluminum Relief Ball: Polypropylene Lexan® Vent Nameplate:

Lexan® is a registered trademark of the General Electric Company

Model Number Matrix

Typical Model Number:	PV - 3 - T - 7
Series Model Number	_
Purge Vent Size —	
2 - 3/4"	
3 - 1-1/4"	
4 - 1-1/2"	
Mounting Style —	

- T Top Mount (top of enclosure)
- **S** Side Mount (side of enclosure)

Optional Special Use Characters

This designator is utilized to denote specific customer requested modifications and special assemblies to include but not limited to extended or metric mounting hubs, special coatings, materials and lift off pressures.

Compatibility Chart

 Purge Vent Models
 Purge & Pressurization Units

 PV-2-T & PV-2-S
 YZ101A & YZ102

 PV-3-T & PV-3-S
 YZ101B & YZ103

 PV-4-T & PV-4-S
 YZ101C & YZ104

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Ask a Sales Associate about our complete range of essential accessories, or visit our website for more information!

