



# CYCLOPS

## Z – Purge Indicator



- **Low cost**
- **Simple to install & use**
- **Highly reliable & maintenance free**
- **Enclosure vent is part of casing**
- **Local & remote status indicator**
- **Casing available in anodized aluminum & 316 stainless steel**
- **12 or 24 VDC & 115 or 230 VAC**
- **All in One Unit**

### OVERVIEW:

To prevent the possibility of fire or explosion inside the enclosures of energized electrical equipment, a protective gas supply is used to dilute potentially flammable vapors to an acceptable level, creating a safe area for the devices within the enclosure. Positive pressure prevents the ingress of flammable vapors in the surrounding atmosphere from entering into the enclosure as long as positive pressure is maintained. After the enclosure is purged, power may be manually applied to the protected electrical equipment.

The Purge Solutions CYCLOPS Z – Purge Indicator provides objective evidence of positive enclosure pressure with both a visible indicator and supplied standard, a dry-contact output for remote status monitoring. The enclosure purge vent is an integrated part of the CYCLOPS Z – Purge Indicator's casing, which mounts directly to the enclosure being purged. No additional holes, sheet metal, or plumbing is required.

## FEATURES:

- The CYCLOPS Z – Purge Indicator mounts directly to purged enclosure. No additional sheet metal enclosures or plumbing is required. (Refer to Figures 1, 2, 3, & 4)
- Enclosure purge vent is an integrated part of the CYCLOPS Z – Purge Indicator casing. No additional holes or plumbing is required in purged enclosure. (Refer to Figure 4)
- Dry contact output for remote monitoring is supplied as standard. Contact open on alarm (Standard). Contact closed on alarm (Optional). Order optional contact closed on alarm by adding an “X” at end of Purge Solutions model number. (Refer to Figure 4)
- Rugged, visual green LED indicator. Green LED on; enclosure purge pressure at or above required pressure. Green LED off, enclosure purge pressure below required pressure.
- The CYCLOPS Z – Purge Indicator is certified to ATEX, CSA, IECEx, NEC, NFPA, UL and CE Marked for installation and use in Division 2 and Zone 2 hazardous areas.

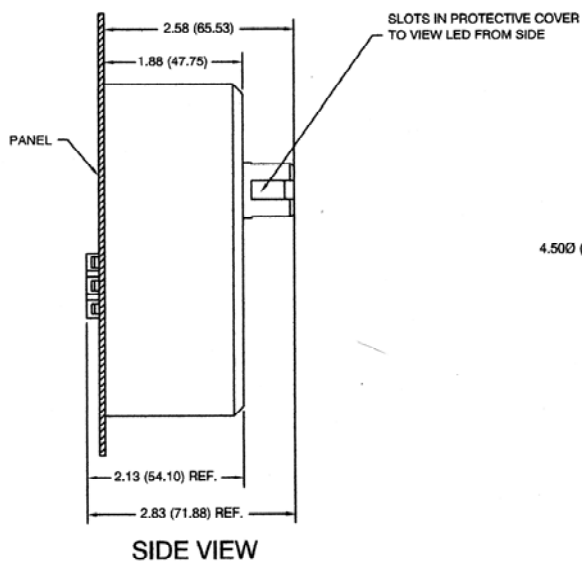


Figure 1

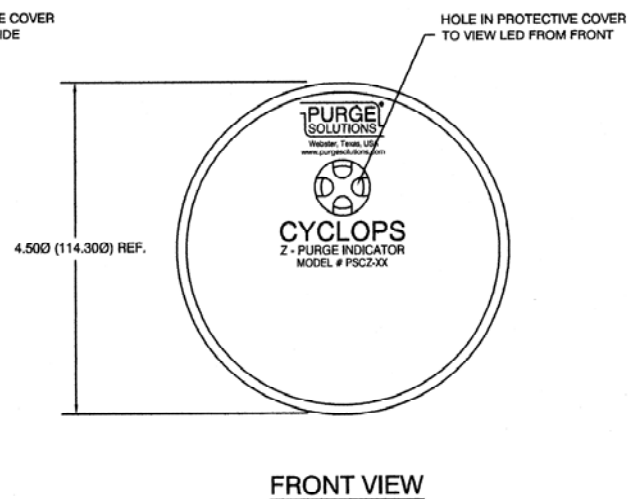


Figure 2

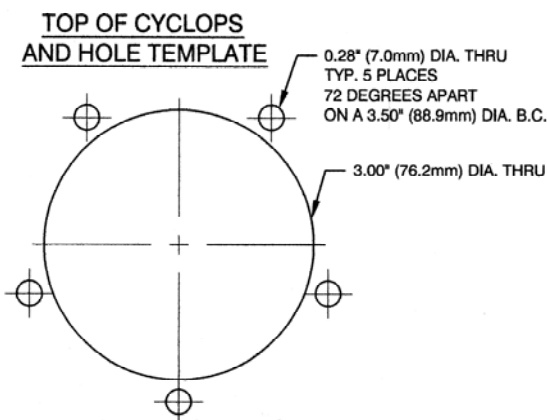


Figure 3

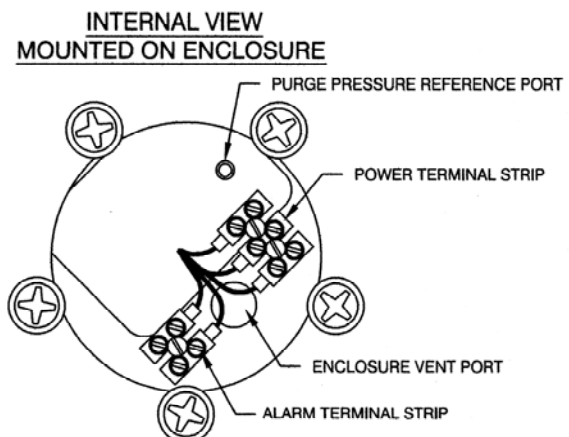


Figure 4



## OPTIONS & ACCESSORIES AVAILABLE:

- **Purge Indicator Casing:** Anodized aluminum (standard) 316 stainless steel (optional).
- **Input Voltages Available:** Either 12 VDC, 24 VDC, 115 VAC, or 230 VAC.
- **Purge Solutions Available Models:**
  1. Type Z – Purge Indicator: 12 VDC, Anodized aluminum, Gas hazardous area installations: Purge Solutions model number PSCZ-1A
  2. Type Z – Purge Indicator: 12 VDC, 316 stainless steel, Gas hazardous area installations: Purge Solutions model number PSCZ-1S
  3. Type Z – Purge Indicator: 24 VDC, Anodized aluminum, Gas hazardous area installations: Purge Solutions model number PSCZ-2A
  4. Type Z – Purge Indicator: 24 VDC, 316 stainless steel, Gas hazardous area installations: Purge Solutions model number PSCZ-2S
  5. Type Z – Purge Indicator: 115 VAC, Anodized aluminum, Gas hazardous area installations: Purge Solutions model number PSCZ-3A
  6. Type Z – Purge Indicator: 115 VAC, 316 stainless steel, Gas hazardous area installations: Purge Solutions model number PSCZ-3S
  7. Type Z – Purge Indicator: 230 VAC, Anodized aluminum, Gas hazardous area installations: Purge Solutions model number PSCZ-4A
  8. Type Z – Purge Indicator: 230 VAC, 316 stainless steel, Gas hazardous area installations: Purge Solutions model number PSCZ-4S
  9. Type Z – Purge Indicator: 12 VDC, Anodized aluminum, Dust hazardous area installations: Purge Solutions model number PSCZ-1AD
  10. Type Z – Purge Indicator: 12 VDC, 316 stainless steel, Dust hazardous area installations: Purge Solutions model number PSCZ-1SD
  11. Type Z – Purge Indicator: 24 VDC, Anodized aluminum, Dust hazardous area installations: Purge Solutions model number PSCZ-2D
  12. Type Z – Purge Indicator: 24 VDC, 316 stainless steel, Dust hazardous area installations: Purge Solutions model number PSCZ-2SD
  13. Type Z – Purge Indicator: 115 VAC, Anodized aluminum, Dust hazardous area installations: Purge Solutions model number PSCZ-3AD
  14. Type Z – Purge Indicator: 115 VAC, 316 stainless steel, Dust hazardous area installations: Purge Solutions model number PSCZ-3SD
  15. Type Z – Purge Indicator: 230 VAC, Anodized aluminum, Dust hazardous area installations: Purge Solutions model number PSCZ-4AD
  16. Type Z – Purge Indicator: 230 VAC, 316 stainless steel, Dust hazardous area installations: Purge Solutions model number PSCZ-4SD
- **Vortex Cabinet Cooler Systems:** For applications where thermal management of electrical cabinets and control panels are required; Purge Solutions offers Vortex Cabinet Cooler Systems, which provide cooling capacities for your application and maintain a NEMA 4 and 4X (IP66) rating for installation and use in hazardous area. Contact your local Purge Solutions representative or the factory for sizing of system and installation information.

## OPTIONS & ACCESSORIES AVAILABLE CONTINUED:

- **Continuous Dilution Purge Gas Inlet Kits:** For interfacing and regulating pressure of protective gas supply to enclosure. Small Continuous Dilution Purge Gas Inlet Kits for enclosures with a volume up to 15 cubic feet (425 liters). Model number PSO-SCD-A is our small aluminum version and PSO-SCD-S is our small stainless version. Small Continuous Dilution Purge Gas Inlet Kits supply gas inlet to regulator is 1/4-18 FNPT. Medium Continuous Dilution Purge Gas Inlet Kits for enclosures with a volume up to 75 cubic feet (2,125 liters). Model number PSO-MCD-A is our medium aluminum version and PSO-MCD-S is our medium stainless version. Medium Continuous Dilution Purge Gas Inlet Kits supply gas inlet to regulator is 3/8-18 FNPT. Large Continuous Dilution Purge Gas Inlet Kits for enclosures with volumes up to 200 cubic feet (5,663 liters). Model number PSO-LCD-A is our large aluminum version and PSO-LCD-S is our large stainless version. Large Continuous Dilution Purge Gas Inlet Kits supply gas inlet to regulator is 1/2-14 FNPT. All kits include input fitting, regulator, gauge, bracket and mounting hardware.
- **Manual Leakage Compensation Purge Gas Inlet Kits:** Having two outlets from manifold able to increase the amount of purge gas to enclosure during dilution may be manually selected to speed up dilution of potentially flammable materials to an acceptable level, reducing dilution time and permitting a more rapid restoration of power to purge protected equipment. Small Manual Leakage Compensation Purge Gas Inlet Kits are for enclosures with a volume up to 15 cubic feet (425 liters). Model number PSO-SLC-A is our small aluminum version and model number PSO-SLC-S is our small stainless steel version. Small Manual Leakage Compensation Purge Gas Inlet Kits supply gas inlet to regulator is 1/4-18 FNPT. Medium Manual Leakage Compensation Purge Gas Inlet Kits are for enclosures with a volume up to 75 cubic feet (2,125 liters). Model number PSO-MLC-A is our medium aluminum version and model number PSO-MLC-S is our medium stainless steel version. Medium Manual Leakage Compensation Purge Gas Inlet Kits supply gas inlet to regulator is 3/8-18 FNPT. Large Manual Leakage Compensation Purge Gas Inlet Kits are for enclosures with volumes up to 200 cubic feet (5,663 liters). Model number PSO-LLC-A is our large aluminum version and PSO-LLC-S is our large stainless steel version. Large Manual Leakage Compensation Purge Gas Inlet Kits supply gas inlet to regulator is 1/2-14 FNPT. All kits include input fittings, regulator, gauge and manifold block.
- **Back-Up Purge Gas Kit:** In the event that the initial protective gas supply is lost, a back-up source of protective gas may be automatically applied to the protected enclosure. Purge Solutions model number is PSO-BUPG-K
- **Back-Up Vents:** To protect the enclosure from over pressure; Purge Solutions offers three sizes of back-up vents. The first size is our Small Back-Up Vent for enclosures with a volume up to 15 cubic feet (425 liters). Model number PSO-SBUV-S is our small side mount version and model number PSO-SBUV-T is our small top mount version. The second size we offer is our Medium Back-Up Vent for enclosures with volumes up to 75 cubic feet (2.125 liters). Model number PSO-MBUV-S is our medium side mount version and model number PSO-MBUV-T is our medium top mount version. The third size we offer is our Large Back-Up Vent for enclosures with volumes up to 200 cubic feet (5,663 liters). Model number PSO-LBUV-S is our large side mount version and model number PSO-LBUV-T is our large top mount version. All Back-Up Vents are constructed of 316 stainless steel and come with all mounting hardware.



## OPTIONS & ACCESSORIES AVAILABLE CONTINUED:

- **Increase Safety Window Kits:** Purge Solutions also offers 5 different sizes of Increase Safety Window Kits with each size available in anodized aluminum or 316 stainless steel bezel material, which can be mounted on the side, top or bottom of an enclosure. Model number PSO-1/32DINW-A is our 1/32 Din size with anodized aluminum bezel, model number PSO-1/32DINW-S is our 1/32 Din size with 316 stainless steel bezel. Model number PSO-1/16DINW-A is our 1/16 Din size with anodized aluminum bezel, model number PSO-1/16DINW-S is our 1/16 Din size with 316 stainless steel bezel. Model number PSO-1/8DINW-A is our 1/8 Din size with anodized aluminum bezel, model number PSO-1/8DINW-S is our 1/8 Din size with 316 stainless steel bezel. Model number PSO-1/4DINW-A is our 1/4 Din size with anodized aluminum bezel, model number PSO-1/4DINW-S is our 1/4 Din size with 316 stainless steel bezel. Model number PSO-XLW-A is our X-Large size with anodized aluminum bezel, model number PSO-XLW-S is our X-Large size with 316 stainless steel bezel.
- **Protective Gas Loss Indicator Kit:** An explosion-proof differential pressure switch may be installed to provide an alarm contact output signal to indicate the loss of the backup source of protective gas. Another explosion-proof differential pressure switch may be installed on the main protective gas supply to indicate that the primary protective gas pressure is adequate. Purge Solutions model number is PSO-PGLI-K.
- **Differential Pressure Gauge Kits:** Purge Solutions also offers an all stainless steel differential pressure gauge kit, which can be mounted on left side model number PSO-DPG-L, right side model number PSO-DPG-R, top model number PSO-DPG-T or bottom model number PSO-DPG-B of enclosure.

## GENERAL SPECIFICATIONS:

- **Casing Dimensions:**  
4.5" diameter x 1.9" tall (114.3mm diameter x 48.3mm tall).
- **Operating Temperature Range:**  
- 40°F to 150°F (- 40°C to 65°C).
- **Purge Pressure Lower Limit Setting:**  
0.50 inches H<sub>2</sub>O (1.25 mbar).
- **Casing:**  
Anodized aluminum, 2.48 lbs. (1.13 kg), IP66, NEMA 4, (standard).  
316 stainless steel, 6.70 lbs. (3.04 kg), IP66, NEMA 4X, (optional).
- **Power Input / Consumption:**  
0.5 Watts max.



**GENERAL SPECIFICATIONS CONTINUED:**

- **Voltage:**  
12 VDC Model, polarity-protected.  
24 VDC Model, polarity-protected.  
115 VAC Model, 50 / 60 Hz.  
230 VAC Model, 50 / 60 Hz.
- **Dry Contact Rating:**  
Contact open on alarm (Standard).  
Contact closed on alarm (Optional).  
250 Volts AC / DC, 150mA max.
- **Standard Hardware:**  
All stainless steel mounting fasteners, o-ring, 1/4" (6.4mm) diameter vent restrictor, warning label, and CD with all required documentation.
- **Hazardous Area Approvals:**  
ATEX and IECEx  
II 3 G Ex nA nL [pz] IIC T6 “for Zone 2 gas hazardous areas”  
II 3 D Ex tD A22 IP66 T79°C “for Zone 2 dust hazardous areas”  
  
ANSI / ISA 12.4, NEC / NFPA 496, CSA and UL  
Class I, Division 2, Group A,B,C&D, T6 “for gas hazardous areas”  
Class II, Division 2, Group F&G, T6 “for dust hazardous areas”  
  
Certified to an Ambient Temperature Range of - 40°F (- 40°C) ≤Tamb≤ + 149°F (+ 65°C)  
  
CE Marked