



# CYCLOPS

## Y – 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 and 24 VDC
- 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, Inc. CYCLOPS Y – Purge Indicator provides objective evidence of positive enclosure pressure with both a visible indicator and supplied standard, a dry-contact output for required remote status monitoring. The enclosure purge vent is an integrated part of the CYCLOPS Y – Purge Indicator's casing, which mounts directly to the enclosure being purged. No additional holes, sheet metal, or plumbing is required.

## FEATURES:

- The CYCLOPS Y – 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 Y – 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 Y – Purge Indicator is certified to ATEX, CSA, IECEx, NEC, NFPA, UL and CE Marked for installation and use in Division 1 and Zone 1 hazardous areas.

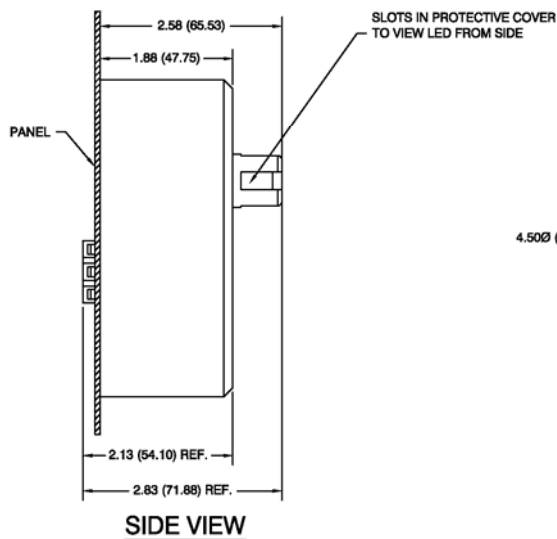


Figure 1

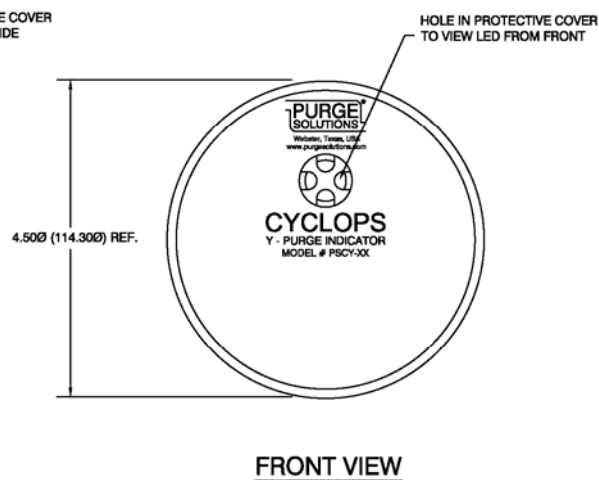


Figure 2

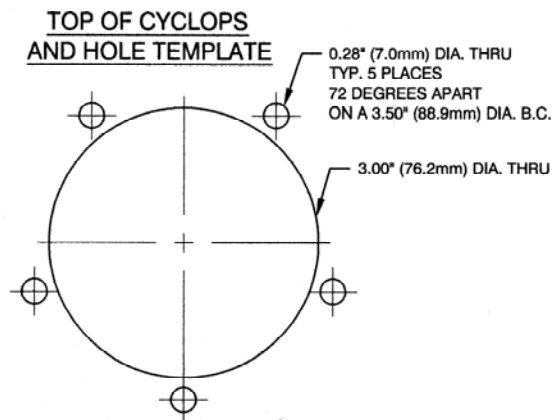


Figure 3

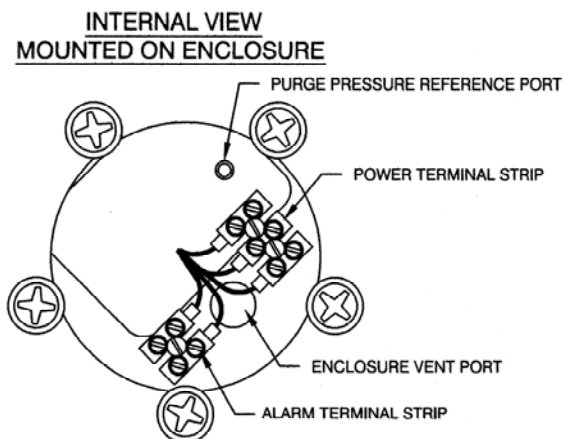


Figure 4



## OPTIONS & ACCESSORIES AVAILABLE:

- **Purge Indicator Casing:** Anodized aluminum (standard) 316 stainless steel (optional).
- **Input Voltages Available:** Either 12 VDC and 24 VDC.
- **Purge Solutions, Inc. Available Models:**
  1. 12 VDC, Anodized aluminum, Gas hazardous areas: Purge Solutions model number PSCY-1A
  2. 12 VDC, 316 stainless steel, Gas hazardous areas: Purge Solutions model number PSCY-1S
  3. 24 VDC, Anodized aluminum, Gas hazardous areas: Purge Solutions model number PSCY-2A
  4. 24 VDC, 316 stainless steel, Gas hazardous areas: Purge Solutions model number PSCY-2S
  5. 12 VDC, Anodized aluminum, X Alarm, Gas hazardous areas: Purge Solutions model number PSCY-1AX
  6. 12 VDC, 316 stainless steel, X Alarm, Gas hazardous areas: Purge Solutions model number PSCY-1SX
  7. 24 VDC, Anodized aluminum, X Alarm, Gas hazardous areas: Purge Solutions model number PSCY-2AX
  8. 24 VDC, 316 stainless steel, X Alarm, Gas hazardous areas: Purge Solutions model number PSCY-2SX
  9. 12 VDC, Anodized aluminum, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-1A.3
  10. 12 VDC, 316 stainless steel, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-1S.3
  11. 24 VDC, Anodized aluminum, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-2A.3
  12. 24 VDC, 316 stainless steel, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-2S.3
  13. 12 VDC, Anodized aluminum, X Alarm, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-1AX.3
  14. 12 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-1SX.3
  15. 24 VDC, Anodized aluminum, X Alarm 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-2AX.3
  16. 24 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Gas hazardous areas: Purge Solutions model number PSCY-2SX.3
  17. 12 VDC, Anodized aluminum, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1A1
  18. 12 VDC, 316 stainless steel, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1S1
  19. 24 VDC, Anodized aluminum, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2A1
  20. 24 VDC, 316 stainless steel, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2S1
  21. 12 VDC, Anodized aluminum, X Alarm, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1AX1
  22. 12 VDC, 316 stainless steel, X Alarm, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1SX1
  23. 24 VDC, Anodized aluminum, X Alarm, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2AX1
  24. 24 VDC, 316 stainless steel, X Alarm, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2SX1
  25. 12 VDC, Anodized aluminum, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1A1.3
  26. 12 VDC, 316 stainless steel, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1S1.3

- **Purge Solutions, Inc. Available Models Continued:**

27. 24 VDC, Anodized aluminum, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2A1.3
28. 24 VDC, 316 stainless steel, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2S1.3
29. 12 VDC, Anodized aluminum, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1AX1.3
30. 12 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-1SX1.3
31. 24 VDC, Anodized aluminum, X Alarm 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2AX1.3
32. 24 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 15 Cubic Foot: Purge Solutions model number PSCY-2SX1.3
33. 12 VDC, Anodized aluminum, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1A2
34. 12 VDC, 316 stainless steel, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1S2
35. 24 VDC, Anodized aluminum, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2A2
36. 24 VDC, 316 stainless steel, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2S2
37. 12 VDC, Anodized aluminum, X Alarm, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1AX2
38. 12 VDC, 316 stainless steel, X Alarm, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1SX2
39. 24 VDC, Anodized aluminum, X Alarm, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2AX2
40. 24 VDC, 316 stainless steel, X Alarm, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2SX2
41. 12 VDC, Anodized aluminum, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1A2.3
42. 12 VDC, 316 stainless steel, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1S2.3
43. 24 VDC, Anodized aluminum, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2A2.3
44. 24 VDC, 316 stainless steel, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2S2.3
45. 12 VDC, Anodized aluminum, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1AX2.3
46. 12 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-1SX2.3
47. 24 VDC, Anodized aluminum, X Alarm 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2AX2.3
48. 24 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 75 Cubic Foot: Purge Solutions model number PSCY-2SX2.3
49. 12 VDC, Anodized aluminum, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1A3
50. 12 VDC, 316 stainless steel, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1S3
51. 24 VDC, Anodized aluminum, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2A3



- **Purge Solutions, Inc. Available Models Continued:**

52. 24 VDC, 316 stainless steel, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2S3
53. 12 VDC, Anodized aluminum, X Alarm, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1AX3
54. 12 VDC, 316 stainless steel, X Alarm, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1SX3
55. 24 VDC, Anodized aluminum, X Alarm, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2AX3
56. 24 VDC, 316 stainless steel, X Alarm, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2SX3
57. 12 VDC, Anodized aluminum, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1A3.3
58. 12 VDC, 316 stainless steel, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1S3.3
59. 24 VDC, Anodized aluminum, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2A3.3
60. 24 VDC, 316 stainless steel, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2S3.3
61. 12 VDC, Anodized aluminum, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1AX3.3
62. 12 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-1SX3.3
63. 24 VDC, Anodized aluminum, X Alarm 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2AX3.3
64. 24 VDC, 316 stainless steel, X Alarm, 0.30 Pressure Switch, Dust hazardous areas, Enclosures Up to 200 Cubic Foot: Purge Solutions model number PSCY-2SX3.3

- **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.

- **Back-Up Vents:** To protect the enclosure from over pressure; Purge Solutions, Inc. 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:**

- **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.
- **Increased Safety Window Kits:** Purge Solutions, Inc. also offers 5 different sizes of Increased 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.
- **Differential Pressure Gauge Kits:** Purge Solutions, Inc. 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.
- **Vortex Cabinet Cooler Systems:** For applications where thermal management of electrical cabinets and control panels are required; Purge Solutions, Inc. 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.
- **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, Inc. model number is PSO-BUPG-K



## OPTIONS & ACCESSORIES AVAILABLE CONTINUED:

- **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, Inc. model number is PSO-PGLI-K.
- **Increased Safety Enclosures:** Purge Solutions, Inc. also offers Increased Safety Enclosures that are available in powder coated carbon steel, 304 or 316 stainless steel in over 60 standard sizes or we can build a custom enclosure to your specifications. All have an IP66 / NEMA 4 ingress protection rating and an ambient temperature rating of - 40°F to 176°F (- 40°C to 80°C).

## 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 inch H2O (1.25 mbar) Standard, 0.30 inch H2O (0.75 mbar) Optional.
- **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.
- **Voltage:**  
12 VDC Model, polarity-protected.  
24 VDC Model, polarity-protected.
- **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 all required documentation.



**GENERAL SPECIFICATIONS CONTINUED:**

• **Hazardous Area Approvals:**

ATEX and IECEx

II 2 G Ex ib [py] IIC T4 Gb “for Zone 1 gas hazardous areas”

II 2 D Ex tb IIIC T79°C Db IP66 “for Zone 1 dust hazardous areas”

ANSI / ISA 12.4, CSA, NEC / NFPA 496 and UL

Class I, Division 1, Group A, B, C & D, T4 “for gas hazardous areas”

Class II, Division 1, Group F & G, T4 “for dust hazardous areas”

Certified to an Ambient Temperature Range of - 40°F (- 40°C)  $\leq T_{amb} \leq$  + 149°F (+ 65°C)

CE Marked