

PurgEx™ Z, Y, and X PURGE INDICATORS / CONTROLLERS

8626 SERIES

PURGE / PRESSURIZATION

STAHL



Globally Certified Z,Y,X Purge Indicators / Controllers and Accessories

Features:

- *Stainless steel or anodized aluminum construction for superior corrosion resistance (NEMA 4,4X)*
- *Small Profile and light weight reduces installation footprint*
- *Global Certifications. Certified to: ATEX / IECEx / NEC / CEC in a single part number. Ideal for global companies looking to standardize on a single design*
- *Dry contact outputs for remote monitoring comes standard.*

STAHL

PurgEx™ Z, Y, and X PURGE INDICATORS / CONTROLLERS

Purged and pressurized systems are an ideal method of explosion protection where components internal to the enclosure cannot be specifically rated for the area. They provide a light weight, corrosion resistant alternative to traditional explosion proof enclosures. The protection concept maintains an above atmospheric pressure within the enclosure not allowing hazardous gas and/or dust to enter and to come into contact with possible sources of ignition.

The Purge Process

1) Purge Phase. In this phase, hazardous gases are removed from the enclosure by diluting the inside of the enclosure with a purge gas source. The enclosure is diluted between 4 to 5 times its cubic capacity with this purge gas, eliminating ignitable amounts of hazardous materials from being present inside the enclosure.

2) Pressurized Phase. In this phase, we have eliminated ignitable amounts of hazardous materials from being inside the enclosure. To prevent outside hazardous materials from entering the enclosure, the enclosure is then slightly pressurized above the outside environment.

Selecting Purge Indicators / Controller

Here are key questions you will need to know in selecting your purge indicator / controller:

1. What protection method do you need? Z, Y, or X?

Type “Z”

This system reduces the classification within protected enclosures from Division 2 / Zone 2 to non-hazardous. Automatic power control disconnects are not required, but visual and / or audible alarms must be initiated when there is loss of pressure within the enclosure.

Type ‘Y”

This system reduces the classification within protected enclosures from Division 1 / Zone 1 to Division 2 / Zone 2. All protected equipment inside the enclosure must be rated for Division 2 / Zone 2. Automatic power control disconnects are not required, but visual and/or audible alarms must be initiated when there is loss of pressure. In addition to all requirements in Z, there must be a remote monitor alarm.

Type “X”

This system reduces the classification within protected enclosures from Division 1 / Zone 1 to nonhazardous. It is required to automatically control electrical power to all protected equipment.

2. Is this a dust or gas environment?

Is the hazard a Class I (Vapor, Liquid, Gas) or Class II (Dust)?





3. How big is your enclosure?

What is the cubic volume of your enclosure?

Small - Up to 15 Cubic Feet

Medium - Up to 75 Cubic Feet

Large - Up to 200 Cubic Feet

4. Voltage?

PurgEx offers the following:

Z - 12 VDC, 24 VDC, 115 VAC, 230 VAC

Y - 12 VDC or 24 VDC

X - 115 or 230 VAC (for other voltages please consult factory)

5. Material Construction

Do you require 316 Stainless (NEMA 4X) or Anodized Aluminum? (NEMA 4)

6. What type of Purge Gas Inlet Kit do you plan to use?

CONTINUOUS PURGE / PURGE GAS

In Continuous Purge, purge gas is continuously passed through the enclosure at a maintained pressure during and after the dilution cycle, and discharged to the outside atmosphere through an exhaust vent. This method is preferred for applications where heat builds up from the electronics within the pressurized enclosure.

LEAKAGE COMPENSATIVE / PRESSURIZATION PURGE

Leakage compensation allows a higher volume of purge gas during the dilution cycle, which is then reduced to only what is required to maintain the required pressure within the enclosure. This is preferred when a source of instrument grade air is limited.

7. Location of the exhaust vent. Side or Top?

Traditional purge systems require an accessory exhaust vent. When one is required, its location needs to be determined (side or top mount).

Please Note: If enclosure is 15 cubic feet or smaller, a separate vent is not required.



CUSTOM CONFIGURATION LOGIC



CLASSIFICATIONS FOR Z PurgEx

NEC / CEC / UL / CSA / ANSI / SA 12.4 & NFPA 486 Certified
 Class I, Division 2, Groups A,B,C,D, T6
 Class II, Division 2, Groups F & G, T6

ATEX
 II 3 G Ex nA ic [pz] IIC T6 Gc
 II 3 D Ex tc IIIC T79°C Dc IP66
 DNV 14 ATEX 5461X

IECEX
 Ex nA ic [pz] IIC T6 Gc
 Ex tc IIIC T79°C Dc IP66
 IECEX DNV 14.0029X

CLASSIFICATIONS FOR Y PurgEx

NEC / CEC / UL / CSA / ANSI / ISA 12.4 & NFPA 486 Certified
 Class I, Division 1, Groups A,B,C,D, T4
 Class II, Division 1, Groups F & G, T4

ATEX
 II 2 G Ex ib [py] IIC T4 Gb
 II 2 D Ex tb IIIC T79°C Db IP66
 DNV 14 ATEX 5460X

IECEX
 Ex ib [py] IIC T4 Gb
 Ex tb IIIC T79°C Db IP66
 IECEX DNV 14.0029X

Ambient Temperature Range:
 +65°C (+150°F) Max.
 -40°C (-40°F) Min.

Globally Certified Y/Z Purge Indicators and Accessories

Features:

- Integral Vent standard on 15 CU FT or smaller indicators (no need to purchase or install accessory vents)
- Stainless Steel or Anodized Aluminum Construction for Superior Corrosion Resistance (NEMA 4, 4X)
- Smallest Profile and Lightest Weight on the market reduces installation footprint

Global Certifications

Certified to ATEX / IECEX / NEC / CEC in a single part number.

- Dry Contact Outputs for Remote Monitoring Come Standard.

Start Here

8	626/1-D	Y	M	2
Dust or Gas	626/1-D	Type of Purge	Size of Enclosure	Voltage
7 = Dust 8 = Gas		Y = Y Purge Z = Z Purge	S = Up to 15 Cubic Feet M = Up to 75 Cubic Feet L = Up to 200 Cubic Feet	1 = 12VDC 2 = 24VDC 3 = 115VAC* 4 = 230VAC*

*Not available in Y-Purge

AVAILABLE IN 316L STAINLESS STEEL OR ANODIZED ALUMINUM



BRILLIANT LED INDICATOR GIVES 180° VIEWING

INTERNAL VENT ELIMINATES THE NEED FOR EXTERNAL VENTS ON ENCLOSURE VOLUME UP TO 15 CUBIC FEET

General Specifications:

Casing Dimensions

4.5" diameter x 1.9" tall (114.3 mm diameter x 48.3 mm tall).

Operating Temperature

-40°F to 150°F (-40°C to 65°C)

Purge Pressure Lower Limit:

0.50 inch H2O (1.25 mbar).

Casing

Anodized aluminum 2.48 lbs. (1.13 kg), IP66, NEMA 4, (standard).
 316L stainless steel, 6.70 lbs. (3.04 kg), IP66, NEMA 4X, (optional).

Power Input / Consumption

0.5 Watts max.

Voltage:

12 VDC model (11 VDC to 16 VDC), 47 to 63 Hz
 24 VDC model (19 VDC to 28 VDC), 47 to 63 Hz
 115 VAC model (85 VAC to 160 VAC), 47 to 63 Hz
 230 VAC model (130 VAC to 265 VAC), 47 to 63 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" (6.4 mm) diameter vent restrictor, warning label, and CD with all required documentation



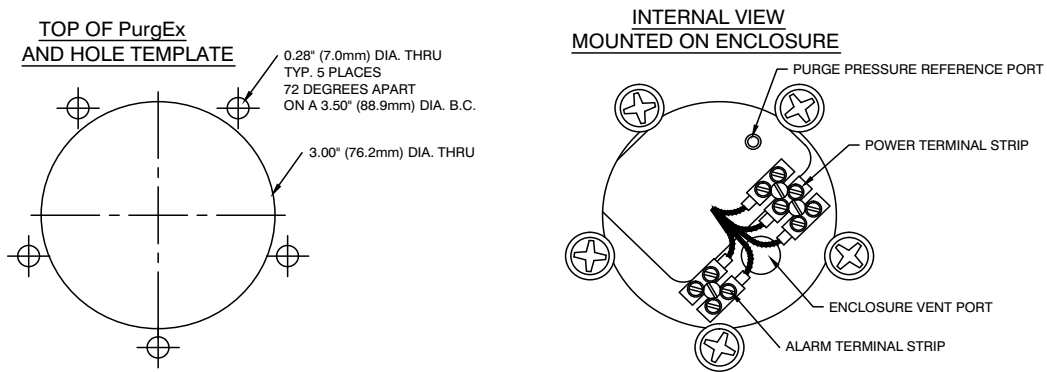
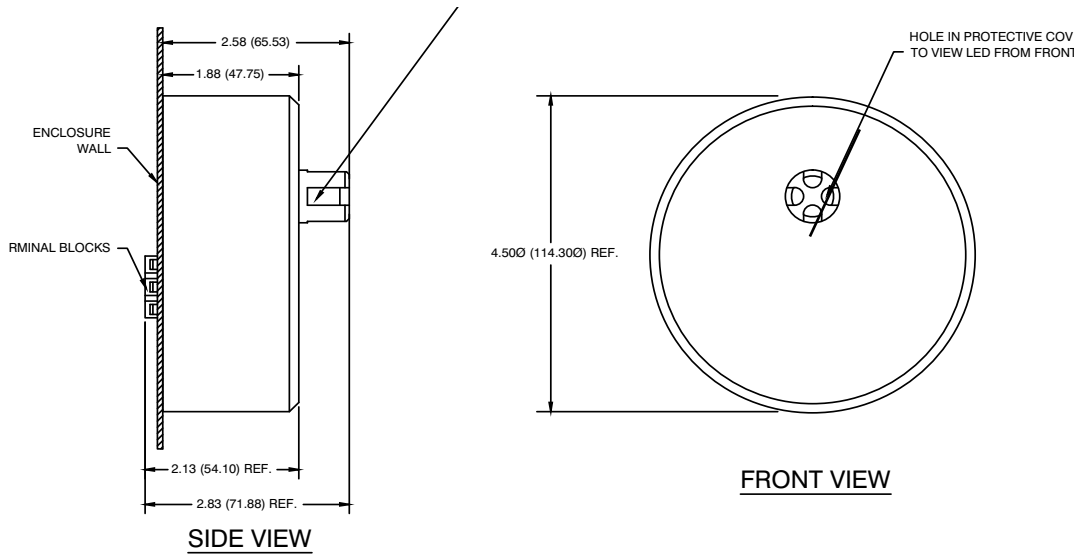
CUSTOM CONFIGURATION LOGIC

S	O	05	T	S	B
Material Construction	Alarm	05	Inlet Kit Accessory	Exhaust Vent Mounting	B
A = Aluminum S = 316 Stainless	O = Normally open contact X = Normally closed contact		T = Continuous Purge Inlet P = Manual Leakage Compensation Purge Inlet N = No Inlet Kit (Must be ordered separately. See pages G9-G14 for details on dimensions)	S = Side Mounted T = Top Sided Mounted O = Specify if ordering less than 15 cu.ft. indicator, or if ordering vent separately	

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. Model number is PSO-PGLI-K.

Differential Pressure Gauge Kit: R. STAHL also offers an all stainless steel differential pressure gauge kit, which can be mounted on the 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.





CLASSIFICATIONS

SF NEC / CEC / CSA / ANSI / ISA 12.4, & NFPA 496 Certified
 Class I, Division 1, Group B,C, & D, T4
 Class II, Division 1, Group E,F, & G, T4

Ex ATEX
 II 2 G Ex e mb ib [px] IIC T4 Gb
 II 2 D Ex tb IIIC T119°C Db IP66
 DNV 14 ATEX 5460X

IECEX
 Ex e mb ib [px] IIC t4 Gb
 Ex tb IIIC T119° Db IP66
 IECEX DNV 14.0029X

Ambient Temperature Range:
 +65°C (+150°F) Max.
 -40°C (-40°F) Min.

Globally Certified X Purge Indicators and Accessories

Features:

- Integral Vent standard on 15 CU FT or smaller indicators (no need to purchase or install accessory vents)
- Stainless Steel or Anodized Aluminum Construction for Superior Corrosion Resistance (NEMA 4, 4X)

Global Certifications

Certified to ATEX / IECEX / NEC / CEC in a single part number.

- Dry Contact Outputs for Remote Monitoring Come Standard.

Start Here

8	626/1	D	X	M
Dust or Gas	626/1	Protection Method	Type of Purge	Size of Enclosure
7 = Dust 8 = Gas		D = Housing Mounted on enclosure N = Externally Mounted Housing	X=X-Purge	S = Up to 15 Cubic Feet M = Up to 75 Cubic Feet L = Up to 200 Cubic Feet

X Purge Controllers enable the use of general purpose components to be placed inside the enclosures the X Purge will be monitoring and placed in a Class I Division 1, and ATEX/ IECEX Zone 1 hazardous area. These PURGEx X-Purge units come with global certifications. These units offer the lightest weight, and smallest profile controllers on the market. Because these designs mount directly on the enclosure, no additional holes, sheet metal, or plumbing is required.



PurgEx X-Purge Controller (D)

- Integral Exhaust Vent Standard. No need to order and assemble accessory vent for enclosures with a volume up to 15 cubic feet.
- Available in Anodized Aluminum or 316 Stainless Steel 115 VAC up to 25 amps or 230VAC up to 12.5 Amps.
- Rugged, visual LED indicator for local monitoring is supplied as standard.



CUSTOM CONFIGURATION LOGIC

3	A	O	05	T	S	C
Voltage	Material	Alarm	05	Type of Compensation	Exhaust Vent Mounting	Classification
<p>3 = 115VAC 4 = 230VAC For DC voltage, consult factory</p>	<p>A = Aluminum S = 316 Stainless</p>	<p>O = Normally open contact X = Normally closed contact</p>		<p>T = Continuous Purge Inlet P = Manual Leakage Compensation Purge Inlet A = Automatic Leakage Compensation Purge Inlet N = No Inlet Kit (Must be ordered separately. See pages G9-G17 for details on dimensions)</p>	<p>S = Side T = Top O = None (will order separately, or 15 cubic feet or smaller)</p>	<p>C = Class I, Division 1 Z = ATEX / IECEx Zone 1</p>



External Mounted (N) Vent Included

- Available in Anodized Aluminum or 316 Stainless Steel 115 VAC up to 25 amps or 230 VAC up to 12.5 Amps.
- Rugged, visual LED indicator for local monitoring is supplied as standard.

GENERAL SPECIFICATIONS

STAHL

Casing Dimensions

8.0" diameter x 1.9" tall (203.2 mm diameter x 48.3 mm tall), protrudes outside of purged enclosure.
 6.5" diameter x 4.50" tall (65.1 mm diameter x 114.0 mm tall), protrudes inside of purged enclosure.

Operating Temperature

-40°F to 150°F (-40°C to 65°C)

Purge Pressure Lower Limit:

0.50 inches H₂O (1.25 mbar) Purge Controller will disconnect power to protected enclosure electronics.

Casing

Anodized aluminum 16.09 lbs (7.30 kg), NEMA 4, (IP66).
 316 stainless steel, 37.98 lbs. (17.23kg), NEMA 4X, (IP66).

Power Control Capability

115 VAC up to 25 Amps RMS continuous over specified voltage ranges.
 230 VAC up to 12.5 Amps RMS continuous over specified voltage ranges.

Power Input / Consumption

2 Watts max.

Voltage:

115 VAC model (85 VAC to 160 VAC), 47 to 63 Hz
 230 VAC model (130 VAC to 265 VAC), 47 to 63 HZ

Dry Contact Outputs & Rating

1. Enclosure purge pressure is below 0.50 inches H₂O (1.25 mbar).
 2. Enclosure exhaust flow has stopped.
 3. Purge Controller is in maintenance mode.
- Normally open contacts (standard).
 Normally closed contacts (optional).
 All rated to 265 Volts AC/DC, 150mA max.

Standard Hardware

All stainless steel mounting hardware, o-ring, 1/4" (6.4 mm) diameter exhaust vent restrictor, CD with all required documentation.

Hazardous Area Approvals

ATEX

II 2 G Ex e mb ib [px] IIC T4 Gb "for Zone 1 gas hazardous areas"
 II 2 D Ex tb IIIC T119°C Db IP66 "for Zone 1 dust hazardous areas"

ANSI / ISA 12.4, CEC, NEC, and NFPA 496

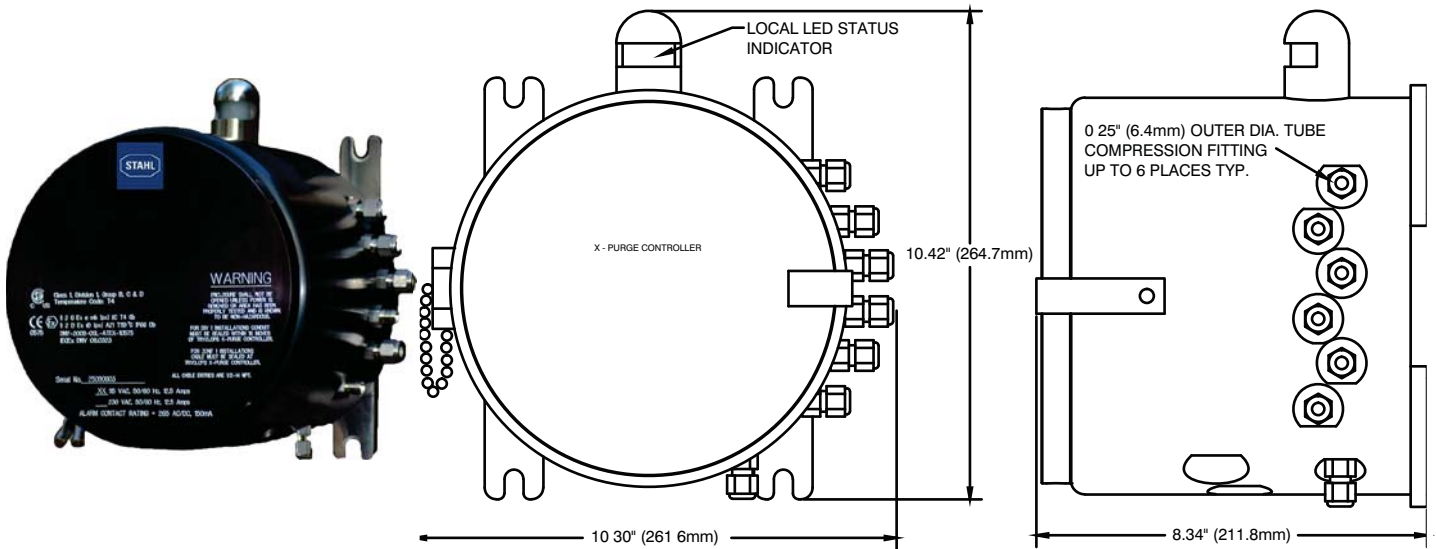
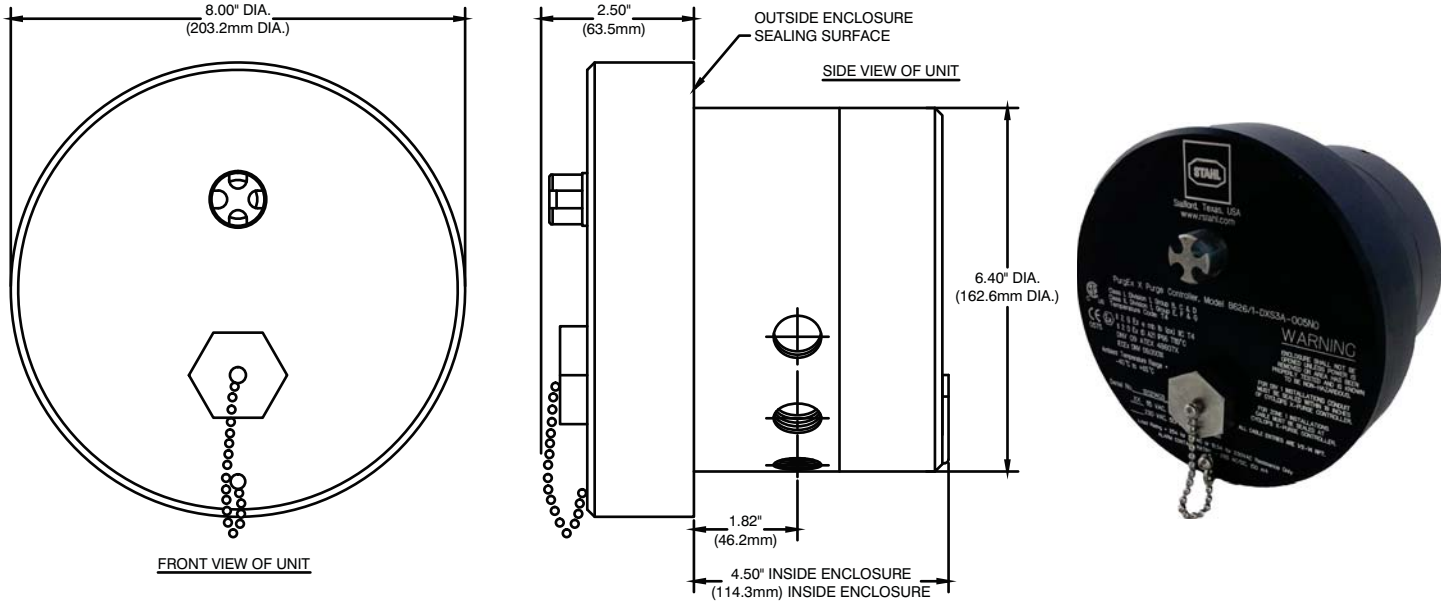
Class I, Division 1, Group B,C, & D, T4 "for gas hazardous areas"
 Class II, Division 1, Group E,F, & G, T4 "for dust hazardous areas"

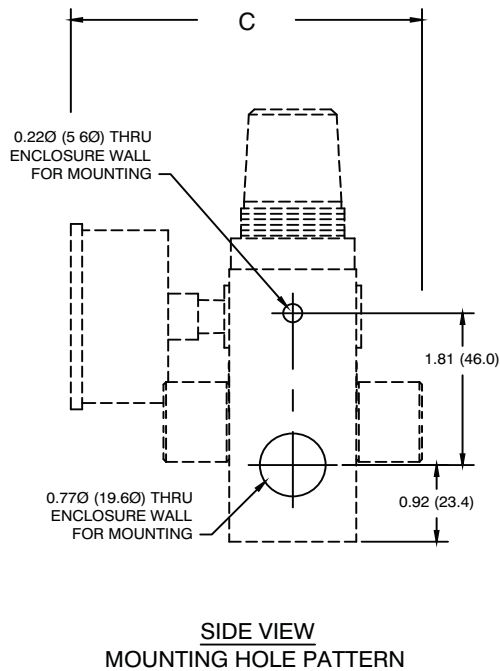
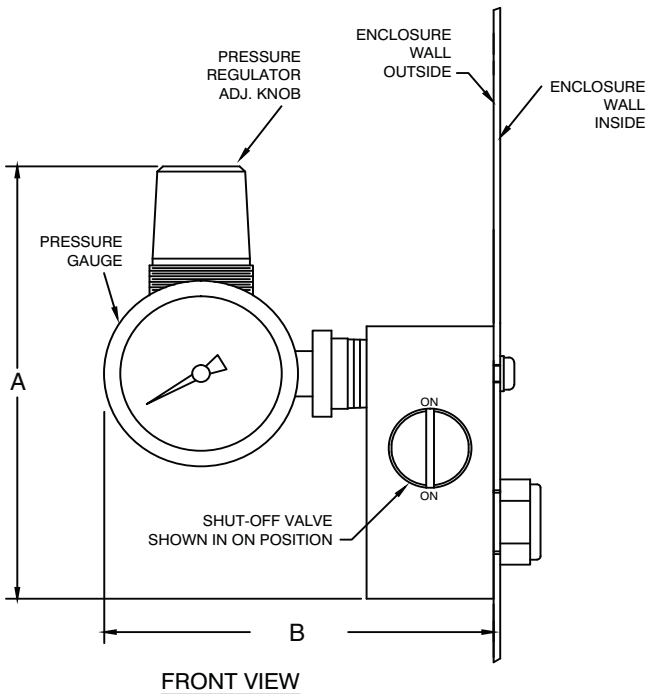
Certified to an Ambient Temperature Range of -40°F (-40°C) ≤ T_{amb} ≤ +150°F (+65°C)

CE Marked



DIMENSIONAL INFORMATION





Size Information

Size	A (mm)	B (mm)	C (mm)	Purge Gas Inlet Size	Enclosure Volume
Small	5.15 (130.8)	4.44 (112.8)	4.00 (101.6)	1/4 - 18 FNPT	Up to 15 Cubic Feet
Medium	6.19 (157.2)	4.68 (118.9)	4.23 (107.4)	3/8 FNPT	Up to 75 Cubic Feet
Large	6.19 (157.2)	4.68 (118.9)	4.23 (107.4)	1/2 - 14 FNPT	Up to 200 Cubic Feet

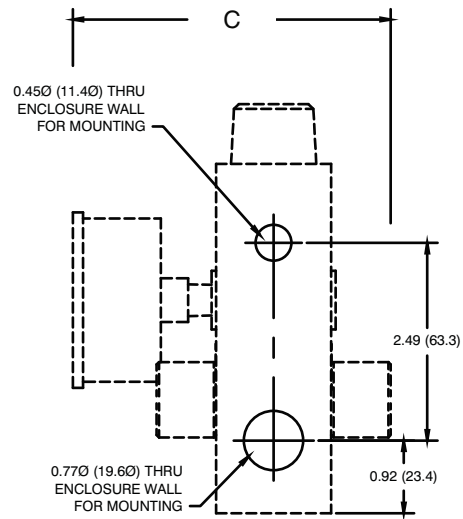
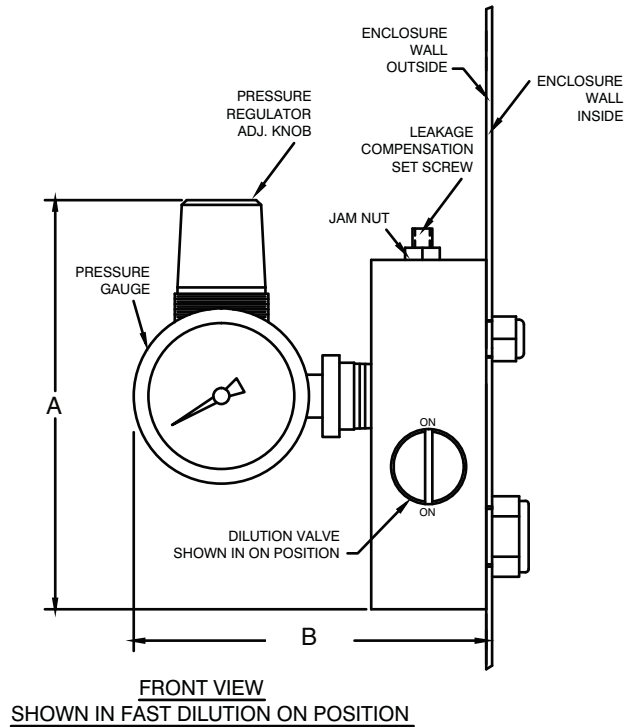
Ordering Information

Size	Enclosure Type	Catalog Number
Small	Aluminum	PSO-SCD-A
	Stainless	PSO-SCD-S
Medium	Aluminum	PSO-MCD-A
	Stainless	PSO-MCD-S
Large	Aluminum	PSO-LCD-A
	Stainless	PSO-LCD-S



Manual Leakage Compensation Purge Gas Inlet Kits

PURGE / PRESSURIZATION



Size Information

Size	A (mm)	B (mm)	C (mm)	Purge Gas Inlet Size	Enclosure Volume
Small	5.15 (130.8)	4.44 (112.8)	4.00 (101.6)	1/4 - 18 FNPT	Up to 15 Cubic Feet
Medium	6.19 (157.2)	4.68 (118.9)	4.23 (107.4)	3/8 FNPT	Up to 75 Cubic Feet
Large	6.19 (157.2)	4.68 (118.9)	4.23 (107.4)	1/2 - 14 FNPT	Up to 200 Cubic Feet

Ordering Information

Size	Enclosure Type	Catalog Number
Small	Aluminum	PSO-SMLC-A
	Stainless	PSO-SMLC-S
Medium	Aluminum	PSO-MMLC-A
	Stainless	PSO-MMLC-S
Large	Aluminum	PSO-LMLC-A
	Stainless	PSO-LMLC-S



Size Information

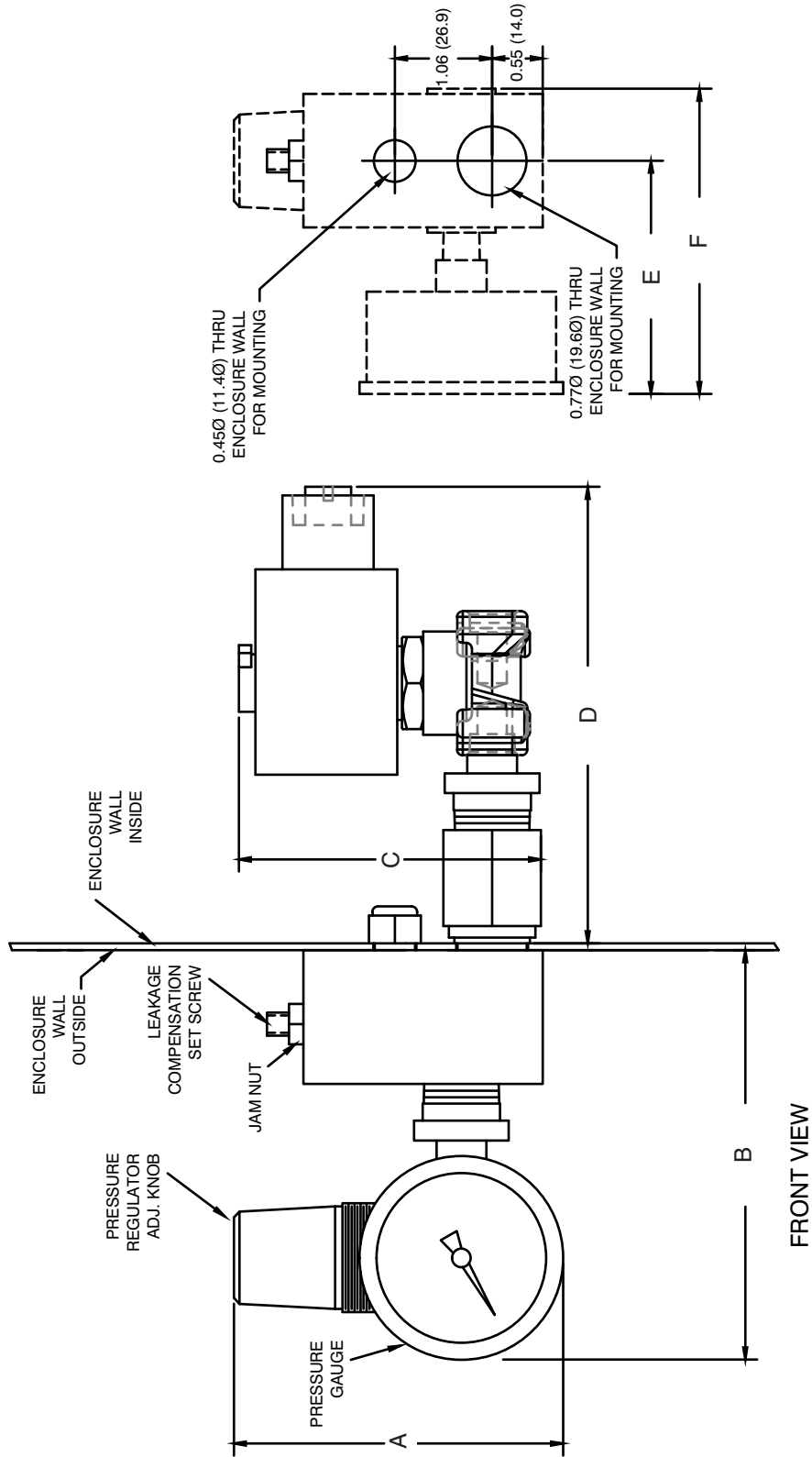
Size	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	Purge Gas Inlet Size	Enclosure Volume
Small	3.57 (90.7)	4.44 (112.8)	3.28 (83.3)	4.95 (125.7)	2.53 (64.3)	3.31 (84.1)	1/4 - 18 FNPT	Up to 15 Cubic Feet*
Medium	4.89 (124.2)	4.68 (118.9)	3.84 (97.5)	4.31 (109.5)	2.75 (69.8)	3.93 (99.8)	3/8 FNPT	Up to 75 Cubic Feet*
Large	4.89 (124.2)	4.68 (118.9)	3.84 (97.5)	4.31 (109.5)	2.75 (69.8)	3.93 (99.8)	1/2 - 14 FNPT	Up to 200 Cubic Feet*

*X Purge Controllers Only

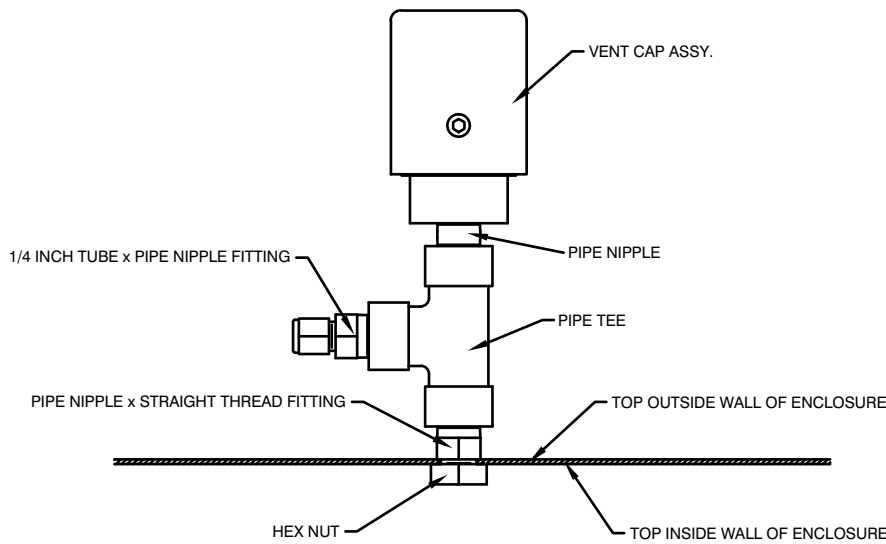
Ordering Information

Size	Enclosure Type	Voltage	Enclosure Type	Catalog Number			
Small	Aluminum	115VAC	Div 1	PSO-SALC-D1A			
			Zone1	PSO-SALC-Z1A			
		230VAC	Div 1	PSO-SALC-D2A			
	Zone 1		PSO-SALC-Z2A				
	Stainless	115VAC	Div1	PSO-SALC-D1S			
			Zone 1	PSO-SALC-Z1S			
230VAC		Div 1	PSO-SALC-D2S				
		Zone 1	PSO-SALC-Z2S				
Medium	Aluminum	115VAC	Div 1	PSO-MALC-D1A			
			Zone 1	PSO-MALC-Z1A			
		230VAC	Div 1	PSO-MALC-D2A			
			Zone 1	PSO-MALC-Z2A			
	Stainless	115VAC	Div 1	PSO-MALC-D1S			
			Zone 1	PSO-MALC-Z1S			
		230VAC	Div 1	PSO-MALC-D2S			
			Zone 1	PSO-MALC-Z2S			
			Large	Aluminum	115VAC	Div 1	PSO-LALC-D1A
						Zone 1	PSO-LALC-Z1A
230VAC	Div 1	PSO-LALC-D2A					
	Zone 1	PSO-LALC-Z2A					
Stainless	115VAC	Div 1		PSO-LALC-D1S			
		Zone 1		PSO-LALC-Z1S			
	230VAC	Div 1	PSO-LALC-D2S				
			Zone 1	PSO-LALC-Z2S			



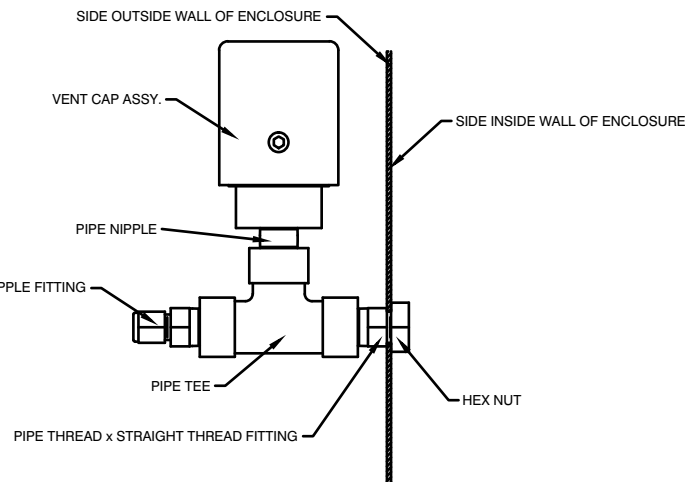
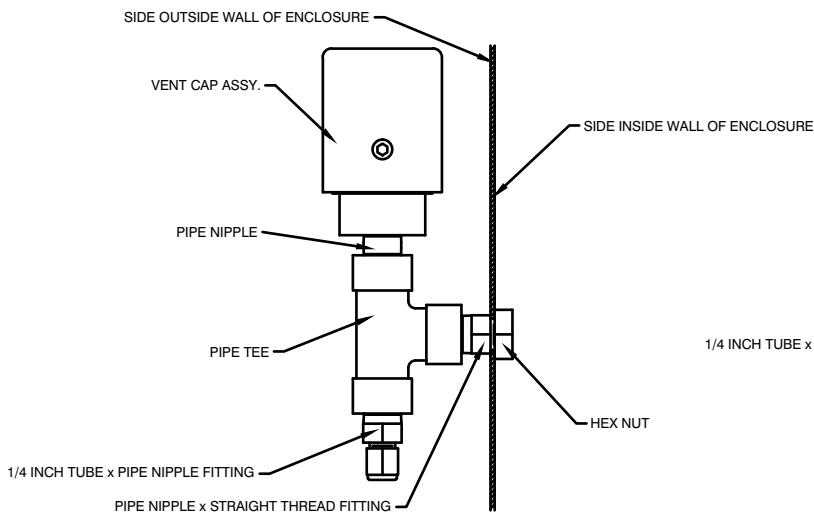


SIDE VIEW
MOUNTING HOLE PATTERN



Size	Top / Side	Catalog Number
Small	Top	DO-11068-B
	Side	DO-11069-B DO-11070-B
Medium	Top	DO-11113-B
	Side	DO-11114-B DO-11115-B
Large	Top	DO-11128-A
	Side	DO-11129-A DO-11130-A

Top Vent Mount



Side Vent Mount

Vent Mount Size

Size	Box Hole Size Required
Small	0.57Ø (14.48Ø)
Medium	1.31Ø (33.3Ø)
Large	2.38Ø (60.5Ø)