

Product Data Sheet

Mini-Z-Dust Protection

Mini-Y-Dust Protection

Control System for **Dust Protection** for enclosures

1ZDP/___/___

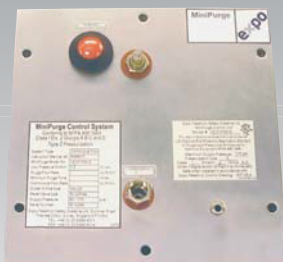
Ex pD Zone 22 IECEx Category 3 D ATEX

Z-Pressurizing Class II Division 2 Group F & G

1YDP/___/___

Y-Pressurizing Class II Division 1 Group F & G

**IECEX
& ATEX
Zone 21 (22)
CERTIFIED!**



MiniPurge
DP panel mount



MiniPurge
DP back plate

FEATURES

- + **One Model number: includes Control Unit and Relief Valve**
- + **Simple integrated mounting with no piping or labor**
- + **IECEX & ATEX approved to IEC 61241-4 and FM approved to NFPA 496**
- + **Clear visual local status indicator**
- + **Remote Alarm contacts**

COMMON SPECIFICATION

The Control Unit:

Purge Medium: Compressed Air or Inert Gas, Clean and dry.
Supply Pressure: 60 psi (4 bar)
Maximum Working Pressure: 115 psi (8 bar)
Temperature Range: -20°C, -4°F to 55°C, 131°F
Supply Inlet 1/4" NPT(F):- Connected with 1/2" (12mm) O/D [Min. 3/8" (10mm) I/D] pipe. 33ft (10 meter) max. length.

Relief Valve RLV25 (Full 1" bore)

Magnetic operation (patented) with integral spark arrestor.
Opening pressure: 1 kPa, 10 mbar, 4" WC

Alarm Indicators: "Alarm" Red Indicates Low Pressure.

Green Indicates Pressure OK

Low Pressure Sensor "Alarm": setting 1" WC (2.5 mbar)

Permissible Enclosure Leakage: 1-8 scfm (30-225 NI/min)

Materials of Construction

Control Unit: 316L stainless steel mounting plate.

Relief Valve: 316L stainless steel.

Weight: 5 lb (2.4kg) approx.

OPERATION

If combustible dust has accumulated within the protected enclosure, the protected enclosure shall be opened and the dust removed before pressurization is applied.

With the protected enclosure door closed the compressed air or inert gas can be applied to the MiniPurge Dust Protection system. By adjusting the flow control valve a positive pressure is then obtained within the enclosure. Red (Alarm) Green (Pressurized). At this stage power to the protected enclosure can be manually applied.

COMPONENTS

The Dust Protection system has two components. The Control Unit controls the air flow and monitors the pressure. The Relief Valve (RLV) provides the over-protection for the enclosure. Preferred options are the Panel Mount or the Back Plate designs. Panel Mount fits directly into the wall of the enclosure with minimum external space. Back Plate mounts either directly onto the outside of or remote from the enclosure.



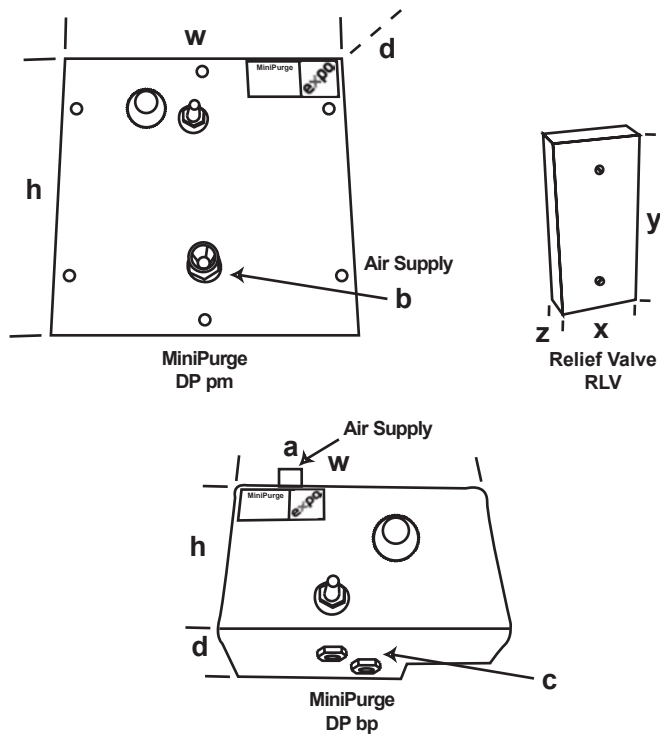


Technical Specification

Mini-Z-Purge Mini-Y-Purge

1ZDP/___/___

1YDP/___/___



Dimensions/ Spec.		1ZDP/pm/___		1ZDP/bp/___	
		1YDP/pm/___		1YDP/bp/___	
Width	w	7.9"	200mm	7.8"	197mm
Height	h	7.9"	200mm	5.0"	127mm
Depth	d	2.4"	62mm	3.1"	79mm
RLV Width	x	2.4"	62mm	2.4"	62mm
RLV Height	y	5.2"	133mm	5.2"	133mm
RLV Depth	z	1.3"	33mm	1.3"	33mm
Fitting Length	a	1.0"	25mm	0.4"	11mm
Fitting NPT	b	1/4"		1/4"	
Signals NPT	c	1/8"		1/8"	

Note on IS output ('Z' Systems)

I.S. outputs can be connected to Intrinsically Safe or non-incendive circuits, with the panel mount PM option, it can also be connected to general purpose (GP) circuits powered from inside the enclosure.

COMMON SPECIFICATION

Location of Control Unit.

Panel Mount

Model No. 1ZDP/pm/IS or /PO

Model No. 1YDP/pm/IS or /PO

Control Unit Location: Side or Front of pressurized enclosure

Back Plate

Model No. 1ZDP/bp/IS or /PO

Model No. 1YDP/bp/IS or /PO

Control Unit Location: Top, Side or Bottom of pressurized enclosure

Warning Label (loose) for User's calibration details, for mounting to pressurized enclosure.

"Alarm" Remote Output Options:

/IS Dry contacts for switching non-incendive or intrinsically safe circuits. "Alarm" open on loss of pressure.

/PO "Pneumatic Output"

"Alarm Output" Main supply 60 psi / 4 bar

Pressure Output "Pressure OK". No Output "Alarm".

OPERATION

Type Number (example)

Size ← 1 Z DP/bp/IS

Certification / Approval

Z North America Class I Division 2
FM 1X8a4AE, cUL E190061
IECEX SIR07.0027X Ex pD
Europe ATEX Category 3 D
SIRA 01ATEX1295X

Y North America Class I Division 1
For protecting Class I Division 2 equipment
FM 1X8a4AE, cUL E190061

Pressurization Method

DP Dust Protection

Housing

bp Back Plate

pm Panel Mount

Output

IS Intrinsically Safe Output

PO Pneumatic Output