



# Product Data Sheet

## Mini-X-Dust Protection

Control System for Dust Protection

For enclosures  
1XDP/\_\_\_/\_\_\_

X-Pressurizing Class II Division 1 Group E, F & G  
Ex pD Pressurizing Zone 21 IECEx Category 2 D ATEX

**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 additional 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: ¼" NPT(F) Connected with ½" (12mm) O/D [Min. ⅜" (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:** 2 scfm (60 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 automatically applied via the MIU.

### COMPONENTS

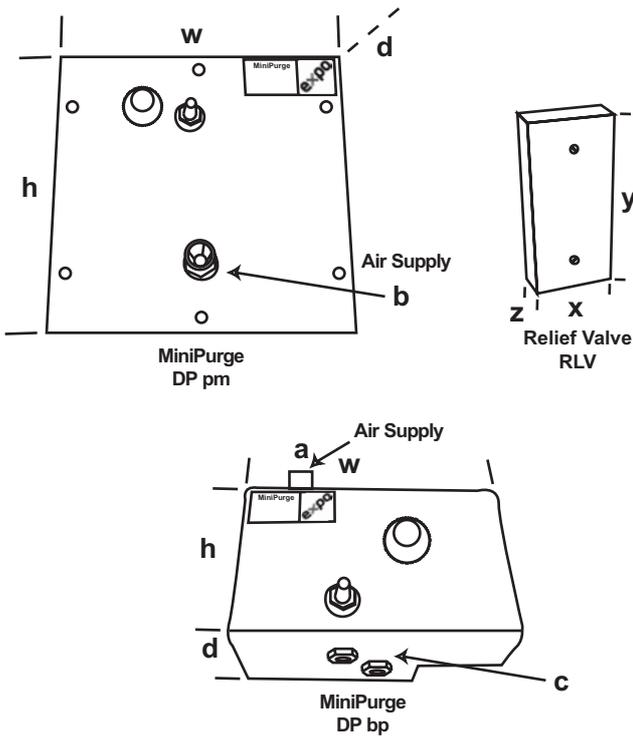
The Dust Protection system has two components. The Control Unit controls the air flow and monitors the pressure. The Relief Valve (RLV) provides the over-protection for the enclosure. Preferred options are the Panel Mount or the Back Plate designs. Panel Mount fits directly into the wall of the enclosure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

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# Technical Specification Mini-X-Purge

1XDP/\_\_\_/\_\_\_



Dimensions/Spec.		1XDP/pm/___		1XDP/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"	

## COMMON SPECIFICATION

### Location of Control Unit.

#### Panel Mount

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

Control Unit Location: Side or Front of pressurized enclosure

#### Back Plate

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

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

**Warning Label** (Loose) for User's calibration details, for mounting the pressurized enclosure.

### "Alarm" Remote / Power Outputs:-

#### /PO "Pneumatic Outputs"

Single output for Pressurize OK and Power On. Main supply 60 psi (4 bar)

No output "Alarm" & Power disconnect.

#### /IS Dry contacts for switching intrinsically safe circuits.

"Alarm" & Power disconnect. contacts open.

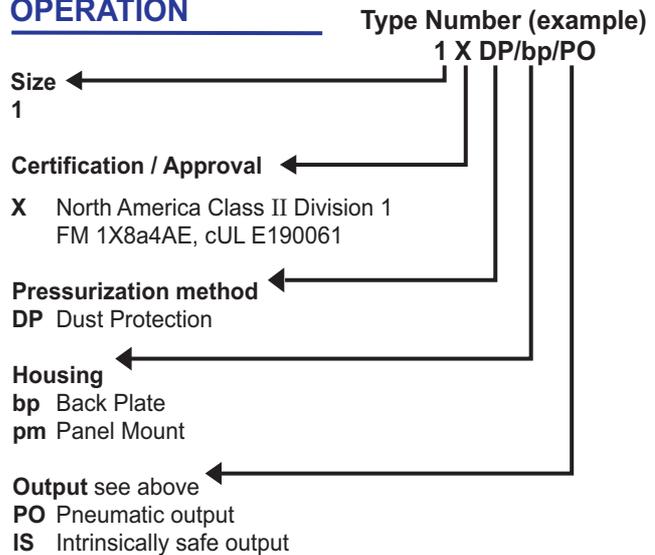
"Pressurized" & "Power On". Contacts closed.

### NOTE:

#### MIU (MiniPurge Interface Unit) when used with a 1XDP/\_\_\_/PO

When using the 1XDP/\_\_\_/PO option the MIU (Data Sheet MPIFU) can be used for the Remote Alarm and Power Disconnect. The single pneumatic output from the Control Unit should be piped via a "T" piece to the "Alarm"/"Pressurized" actuator and the Power Disconnect actuator on the MIU.

## OPERATION



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