

Product Data Sheet

RP-Max-Z Room Pressurization System

Z-Purge Class I, Division 2 Gp C&D
Ex pz Zone 2 IIB T3 Cat. 3 G ATEX



Features

- + **Designed to NFPA496 and ATEX EN 60079-13 (Draft) Room Standards**
- + **Compact Design for Harsh Environments**
- + **-20°C (-4°F) to +40°C (+104°F) on request +60°C (140°F)**
- + **Easy Access User Controls**
- + **Fresh Air Inlet Connection**
- + **Replaceable Inlet Air Filter**
- + **Ventilation Capacities of 1800 to 3000 cfm (3000 to 5000m³/hr)**

OPERATION

The Expo Technologies RP-Max-Z range of room pressurizing units are designed for Type Z (Ex pz) pressurization of rooms in accordance with NFPA 496 2008 and ATEX IEC/EN 60079-13 Draft. At the heart of each system is Expo's control logic which provides for pressure monitoring and air inlet fan control.

The RP-Max-Z room pressurization systems are designed to be used in Class I Div 2 or Zone 2 locations making the interior of the room a general purpose location. The RP-Max-Z can adequately pressurize and ventilate rooms with 1 door (1800 cfm) or 2 doors (3000 cfm). For additional ventilation capacities consult the factory.

CORE FUNCTIONS

- Room pressure monitoring and display
- Fan speed control to reach minimum pressure for compensation of leakages
- Fan control to provide high rate ventilation [up to 60 fpm (0.3 m/sec) velocity across open doors] for door open conditions
- Alarm contacts for low pressure and fan failure indication

ADDITIONAL FUNCTIONS

- External input to shut down fan
- External input to force system into high flow

ELECTRICAL

- Electrical configuration includes required circuit protection for motors and control circuitry
- Configured for single phase 230V 50/60Hz. Other supplies upon request

MECHANICAL

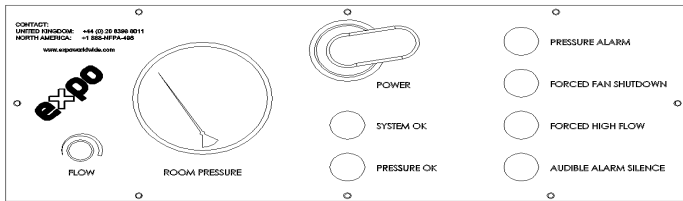
- Preferred mounting arrangements:
 - Through Wall Mounting
 - In Room Wall Mounting
 - Custom design can be engineered to meet specific room requirements

OPTIONS

- Simple filter and additional filtration devices
- Sand trap box can be specified for high dust environments such as desert locations
- Inlet stacks can be provided to suit
- Optional Stainless Steel or Corrosion Resistant Materials
- Additional Options Available - Consult the Factory

Technical Specification Room Pressurization System

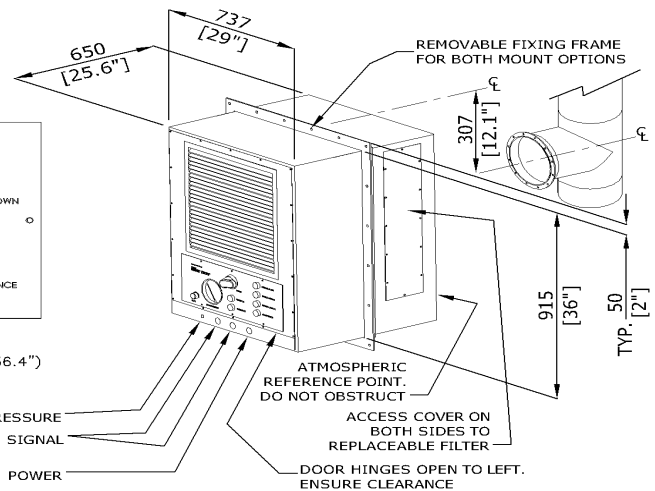
RP _ _ _



NOTES:

- RECOMMENDED FINISHED THRU-WALL APERTURE: 747W x 925H (29.4" x 36.4")
- MINIMUM IP54 SEAL IS REQUIRED AT CONDUIT/CABLE ENTRIES. SUITABLE GLANDS OR CONDUIT STOPPER BOX MUST BE USED
- APPROXIMATE WEIGHT 120kg [265lb]
- INLET STACK Ø355mm [14"]

ROOM PRESSURE
SIGNAL
POWER
3/4" NPT(F) CABLE/ CONDUIT ENTRIES (SEE NOTE)



Common Specification

Classification: For use in External Class I Division 2 or Zone 2 locations

System Supply Voltage: 1 Phase, 230v, 50/60 Hz; (180 – 264V)

System Power Consumption: Less than 1.5 kW

Inputs : Fan Shut Down e.g from gas detection.- N/C
Force High Flow e.g to clear gas .- N/O

Outputs: Low pressure alarm .- Volt Free (Dry) Contacts 1A 120V AC1
System fault Alarm .- Volt Free (Dry) Contacts 1A 120V AC1
Audible alarm .- Volt Free (Dry) Contacts 1A 120V AC1

Room Pressure: Set via potentiometer on User Interface Panel

Room Pressure Front panel indicator: Integral to unit

Room pressure sensor: Integral pressure switch

Pressure Alarm Set point: 0.25 mbar (0.1" wc)

Fan Type: Non Sparking construction

Fan Motor Type: NEC TFTC or ATEX certified fan motor Ex II 2G c II B T3

Fan Flow delivery: 1800 cfm (3000 m³/hr) or 3000cfm (5000m³/hr)

Delay prior to initiating High Flow. 10 seconds

Alarm delay on loss of pressure. 30 seconds

Control Unit Enclosure: Non-Incendive or Ex nR IIB

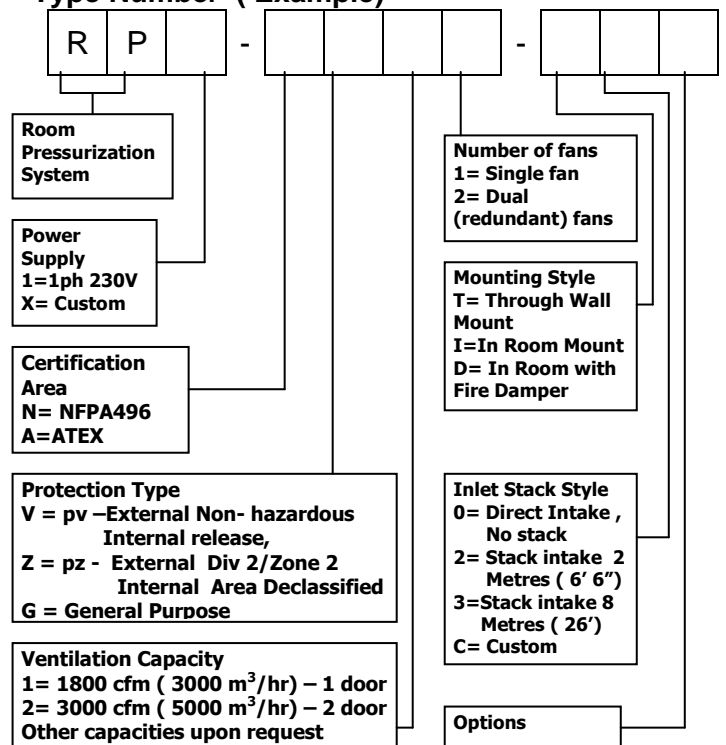
Temperature Limits: -20°C to +40°C (-4°F to +104°F) Optional 60°C (140°F)

Supply Air: From remote non-hazardous or zone 2 source via ducting

System Enclosure: Polyester powder coated mild (carbon) steel

Weight: 120kg (265 lb)

Type Number (Example)



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Expo Technologies reserve the right to amend data given here without prior notice.