



## Data Sheet

# RP-MAX-Z

## Room Pressurization System

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



### 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 (300 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 (0.3m/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

### Features

- + Designed to NFPA 496 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 5000m<sup>3</sup>/hr)

### 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

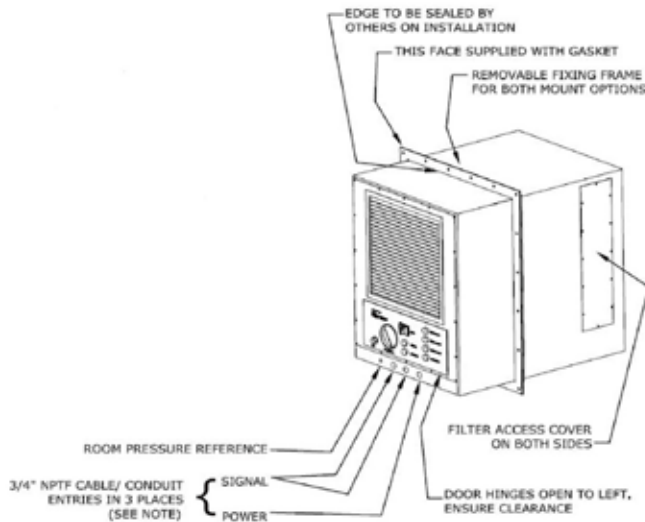


# Purge + Pressurization + Innovation.

# Room Pressurization System

## Technical Specification

## Technical Data



**Classification:** For use in External Class 1 Division 2 or Zone 2 locations

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

**System Power Consumption:** Less than 1.5kW

**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 m<sup>3</sup>/hr) or 3000 cfm (5100 m<sup>3</sup>/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 (265lb)

