ROOM PRESSURE MONITOR

±0.05 to ±5.0 inH$_2$0
±25 to ±1000 Pa

DPG300 Series

CE RoHS

- ✔ **Touch Screen Display**
- ✔ **BACnet™ Option Available**
- ✔ **Password Protection**
- ✔ **Local Audible Alarm**
- ✔ **Visual Red and Green Room Status Display**
- ✔ **SPDT Alarm Relay**
- ✔ **Variable Alarm Delay**
- ✔ **Positive and Negative Pressure Monitoring**
- ✔ **Bar Graph Display**
- ✔ **Selectable Units, WC, Pa, or cmWC**
- ✔ **Selectable Analog Output, 4 to 20 mA, 0 to 5 or 0 to 10 Vdc**
- ✔ **Accuracy 0.5% Standard; High Accuracy Optional**

Ideal Applications

- ✔ **Areas Requiring Positive or Negative Room Pressures**
- ✔ **Pharmaceutical Manufacturing**
- ✔ **Clean Rooms**
- ✔ **Research Laboratories**
- ✔ **Semiconductor Fabrication**

OMEGA's DPG300 room pressure monitor is designed for critical low differential pressure applications that require stringent pressure monitoring and alarming. Optional BACnet network capability for integration in building automation control systems is available. DPG300 can monitor positive or negative air pressure in protected environments. It comes as a complete system that includes a convenient backlit RGB LCD

DPG300, shown smaller than actual size.

display with an intuitive graphic user interface for pressure, security, calibration and alarm set up. The touch-screen allows finger-tip access to menus that guild the user through setup. Visual red and green LEDs and local audible alarm, with a time delay feature to prevent nuisance alarms, alert personnel to system status. DPG300 also has a SPDT relay output for remote indication of system status.

SPECIFICATIONS

Accuracy:
  Standard: ±0.5% BFSL
  Option High: ±0.25% BFSL
Communications Option: BACnet
Compensated Temperature Range: 0 to 50°C (32 to 120°F)
Storage Temperature Range: -30 to 70°C (-20 to 160°F)
Operating Humidity: 5 to 95% RH (non-condensing)

Thermal Effects: ± 0.05% full scale (±0.03% full scale for high accuracy model)
Overpressure: ±15 inWC for the ±0.1 and ±0.05 inWC, ±1 psig for all other ranges
Pressure Media: Clean dry air, non-conductive, or non-corrosive gases only
Pressure Fittings: ¼" OD barbed fittings (tubing TYSC-14316-100)
LCD Display: 128 x 128 mm (5 x 5") RGB backlit
Status Indicators: Green LED normal, red LED alarm
Enclosure: NEMA 1 (IP20), rated for indoor applications
Case: Fire retardant plastic
Dimensions: 203 H x 130 W x 46 mm D (8 x 5.1 x 1.8")
Weight: 680 g (1.5 lb)
Electrical Connection: Removable terminal block
Mounting: 102 x 102 mm (4 x 4") plaster ring (mounts to double gang electrical box)

MENU TREE

Welcome Screen

ROOM PRESSURE MONITOR

Ω OMEGA®

Menu Button Pressed

Pressure Monitoring Screen

Door Open
Negative Room
+0.5000 mmWC
250.110   679.110
Silence | Menu | Reset

Wrong password entered or Number of Tries Exceeded the Maximum Number of Tries. Return to Pressure Monitoring Screen.

LOGIN
Enter Password
MMMMMMM
OK   Cancel
Error, Positive High value should be bλω 0 & +FS (0.25) & greater than Lower limit.

Touch-Sense Screen
The touch sensitive screen allows easy navigation of the menu tree to configure the SRPM for negative or positive room pressure control.

Login Screen

LOGIN
Enter Password
MMMMMMM
OK   Cancel
Error, Positive High value should be bλω 0 & +FS (0.25) & greater than Lower limit.

Data Entry Screen

DATA ENTRY
Enter +ve Room Pressure
12345 Secs
1 2 3 4 5
6 7 8 9 0
. – ← ENTER

LOGIN
Enter Password
MMMMMMM
OK   Cancel
Error, Positive High value should be bλω 0 & +FS (0.25) & greater than Lower limit.

Password Not Entered Correctly

Password Entered Correctly

Main Menu Screen

SETUP MENU
Unit   Room
Alarm   BACnet
Self Test   Calibration
Back

Setup Unit Screen
Enter Parameters
Select "Save" to exit.

SETUP UNIT
Password protection Yes No Change
Analog Output 4–20 0–5 0–10
Eng. Unit "WC Pa mmWC
Display Averaging 123 Secs
Save & Exit   Cancel

Setup Room Screen
Enter Parameters
Select "Save" to exit.

SETUP ROOM
Room Type Negative Room
Lower Limit +0.000 Upper Limit +0.900
Room Mode Password Yes No Change
Cancel   Save & Exit

Setup Room Mode
Occupied or No Isolation
Select "Save" to exit.

ROOM MODE
Please SET the Room Mode by selecting either
Occupied or Unoccupied
Occupied   Unoccupied
Cancel   Save & Exit

Alarm Setup Screen
Enter Parameters
Select "Save" to exit.

ALARM SETUP
Latch Alarm Yes No
Audible Alarm Yes No
Door Alarm Input Yes No
Mute Time Out 1234 Secs
Alarm Delay 1234 Secs
Volume 1 Up Down
Save & Exit   Cancel

Apply Parmters or "Restore Factory Setting"

CALIBRATION
Negative Room
+0.500 mmWC
Apply Zero Pressure ZERO
Apply Full Scale Pressure SPAN
Exit   Restore Factory Setting

Apply Parameters
Select "Save" to exit.

BACnet Setup
MAC Address 127
Device Inst. 123456789
Baud Rate
9600 19200
38400 76800
Save & Exit   Cancel

Self Test Screen
Test Alarm

SELF TEST
Product Model ABCD–EFGH–IJKL–MN09
Version No. RPM6.21
Serial No. 123456789
Alarm Test   Cancel Test
Self Test   Exit

Door open
Negative Room
+0.0501+WC
.01   .09
Silence | Menu | Reset

If pressure is Normal, the screen is Green.

Door Open
Negative Room
+0.0201+WC
.01   .09
Silence | Menu | Reset

If pressure is Normal, and Door is open, the screen is Yellow.

Door Open
Negative Room
+0.0201+WC
.01   .09
Silence | Menu | Reset

If pressure falls outside of preset limits (Alarmed State), the screen is Red.

Remote annunciator (sold separately).

AREA ID
Normal
Alarm
ACK

To Order

inH$_2$O	PASCALS	MODEL NO.	MODEL NO. BACnet
±0.0500	±12.5	**DPG300-0.05**	**DPG301-0.05**
±0.1000	±25.0	**DPG300-0.1**	**DPG301-0.1**
±0.2500	±50.0	**DPG300-0.25**	**DPG301-0.25**
±0.5000	±100.0	**DPG300-0.5**	**DPG301-0.5**
±1.0000	±250.0	**DPG300-1**	**DPG301-1**
±2.5000	±500.0	**DPG300-2.5**	**DPG301-2.5**
±5.0000	±1000.0	**DPG300-5**	**DPG301-5**

ACCESSORIES

MODEL NO.	DESCRIPTION
DPG300-AN	Remote annunciator
DPG300-RPP	Room pressure snubber
TYSC-14316-100	Tubing