CLEAN ROOM MONITOR FOR DIFFERENTIAL PRESSURE

**Features**

- 7 Segment L.E.D. display Indication for Differential Pressure.
- User Programmable 2 no. Alarms AL1, AL2.
- Intergrated Buzzer for Alarm limits violation with Acknowledgment facility.
- Software calibration facility, Calibration due and Sensor replace indication.
- Password protected programming
- Isolated RS-485 with Modbus RTU Protocol communication for PLC, SCADA etc.
- Optional in built 2 No Relay.
- Optional 4-20mA output.

**Applications**

- Clean room application in Pharmaceutical
- Pharma Environments monitoring applications
- HVAC (Heating, ventilation, Air conditioning, Cooling).
- Animal house clean room
- Cold Storage

**TECHNICAL SPECIFICATIONS**

### Input

- **Sensor**: Built in Differential Pressure sensor with Brass Hose Nozzels (Chrome Plated) for +Ve Pressure connection & -Ve Pressure connection

### Range & Resolution

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Range</th>
<th>Resolution</th>
</tr>
</thead>
<tbody>
<tr>
<td>DP 1.</td>
<td>(-100 to 100) mmWC,</td>
<td>0.1</td>
</tr>
<tr>
<td>DP 2.</td>
<td>(-10 to 10) cmWC,</td>
<td>0.1</td>
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<tr>
<td>DP 3.</td>
<td>(-7.5 to 7.5) mmHG,</td>
<td>0.1</td>
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<tr>
<td>DP 4.</td>
<td>(-1000 to 1000) Pascal,</td>
<td>1</td>
</tr>
<tr>
<td>DP 5.</td>
<td>(-10 to 10) Hectopascal,</td>
<td>0.1</td>
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</table>

**Note**: Other Differential Pressure Range/Unit, Available on request, Contact factory.

### Accuracy

Differential Pressure : ±1% of FS

### Indication

- **Display**: 4 digit Seven Segment 0.4” Red L.E.D. display for Differential Pressure indication
- **Status indication**: 2 L.E.D.s ‘AL1 and AL2’ for for Alarms and ‘COM’ L.E.D. for communication
- **Audio Indication**: Integrated buzzer for Alarm limits violation

### Output (Optional)

- **Relay**: 2 Nos. SPDT or 1 No. DPDT relay of rating ‘2A/24VDC’ Potential free contacts (NO-C-NC)
- **Current Output**: 1 No. 4-20mA output with 680E load capacity
- **Accuracy of current output**: 0.125% FS.

### Communication

- **RS-485 Slave**: Isolated RS-485 communication with Modbus RTU Protocol
- **Programmable Settings**: Baud rate 9600 bps, Parity (O/E/N), Data bits (8), Stop bits (1/2)
- **No. of salve ID**: 1-250
- **Minimum Polling interval**: 200 milliseconds

### Programmable Parameters

- **Set point**: 2 Nos. AL1, AL2 User Programmable
- **Programming of parameters**: 3 Nos. push button front keys (with password protection)
- **Alarm logic**: High or Low, user programmable

### Environmental

- **Operating Ambient Temp.**: 0 to 50°C
- **Humidity**: Below 95% RH, Non condensing.

### Electrical

- **Supply voltage**: 18 to 36VDC, Typically 24VDC
- **Power consumption**: Less than 1.2 watt at 24VDC

### Dimension

- **Flush mounting plate**: SS-304
- **Front plate size**: 90 mm(H) x 110 mm(W)
- **Back enclosure**: MS with powder coated
- **Over all Dimension**: 90 mm(H) x 110 mm(W) x 43 mm(D)
- **Mounting**: Modular wall mounting with Stainless Steel Front

Your Partner for Clean Room Monitoring
ORDERING INFORMATION

<table>
<thead>
<tr>
<th>CRM</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>A) Model No.</td>
<td>1) 111-1</td>
<td>B) Range &amp; Resolution</td>
<td>i) Select Range &amp; Resolution from table</td>
<td>C) Output</td>
<td>1) None</td>
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<tr>
<td>D) Communication Port</td>
<td>1) None</td>
<td>2) RS-485 port</td>
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<tr>
<td>E) Communication Software</td>
<td>1) None</td>
<td>2) 21 CFR Part II compliance</td>
<td>SCADA Software (Communication Software is available if RS-485 port is ordered)</td>
<td></td>
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</tr>
</tbody>
</table>

* Before placing order; Refer the above ordering information or Contact below address for assistance.

Manufactured by:

AMBETRONICS ENGINEERS PVT. LTD.

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