PUC44

**Inputs (adjustable)**
- up to 4 analogue inputs (4 .. 20 mA, galvanically separated, Ra = 400 .. 1750 Ω), without transmitter feed

**Scaling (adjustable)**
- deactivated, linear or polygonal (max. 20 points)

**Filter**
- deactivated or with dampening / filter coefficient

**Touch-display**
- TFT, coloured, 3.5”, 320 x 240 px

**Available views (adjustable)**
- values, bar graph, curve chart, vector diagram

**View change**
- manually or automatically

**Time axis curve chart**
- 19 s / 48 s / 95 s / 6 min / 12 min / 30 min / 1 h / 2 h / 4 h / 8 h / 16 h / 24 h / 3 d / 7 d

**Alarm configuration (adjustable)**
- LoLo .. Lo .. Hi .. HHi for all channels thresholds:
  - constant, lower threshold, upper threshold, hysteresis
- timing:
  - delay ON/OFF, retention time ON/OFF
- acoustic collective alarm freely parameterisable

**Alarm display (adjustable)**
- deactivated, permanent, flashing
  - (period, retention time, alarm source, texts / colours adjustable)

**Languages (menu)**
- English, French, German, Italian, Spanish

**Date and time**
- time zone and summer time can be set

**Brightness**
- 20 .. 40 .. 60 .. 80 .. 100 %

**Screen saver**
- deactivated or after 1 .. 5 .. 10 .. 30 min

**Access protection**
- password 6-digit (GAMP 5)

**Current consumption**
- 500 mA

**Baud rate**
- 1200 bit/s to 115200 bit/s

**Connections**
- 1x USB-host on the rear for transfer of configuration files, screw terminals for 4 analogue inputs, bus and supply

**Power supply**
- 24 V DC ± 5 %

**Housing**
- wall recessing

**Ambient temperature**
- 0 .. 50 °C

**Storage temperature**
- -10 .. 70 °C

**Humidity**
- 5 .. 90 % without condensation

**Protection class**
- PUC 44 - 1 IP 20
- PUC 44 - 2 / - 3 IP 65 (front side), IP 20 (housing and terminals)

**Housing type**

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium anodised</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless steel standard</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stainless steel with magnetic holder</td>
<td>3</td>
<td></td>
<td></td>
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</tbody>
</table>

**Bus type / data interface**

<table>
<thead>
<tr>
<th>B</th>
<th>C</th>
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<tbody>
<tr>
<td>Modbus RTU</td>
<td>MB</td>
</tr>
<tr>
<td>BACnet MS/TP</td>
<td>BN</td>
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</tbody>
</table>

**Parameterisation**

<table>
<thead>
<tr>
<th>C</th>
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<tbody>
<tr>
<td>Provided by customer</td>
</tr>
<tr>
<td>Factory-provided</td>
</tr>
</tbody>
</table>

**Order code**

<table>
<thead>
<tr>
<th>A</th>
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<th>C</th>
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<tbody>
<tr>
<td>PUC44</td>
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</table>
PANLES FOR DISPLAYING, ALERTING, NETWORKING

Many companies (e.g. in the life sciences sector) are required to use monitoring systems in their critical production processes. These systems have to operate with a high degree of data security and record, transfer and save quality-relevant measurement data. Professional suppliers of monitoring systems and validation services offer solutions which are aligned with GAMP 5 for this task. GAMP stands for Good Automated Manufacturing Practice. It is a quasi-standard that sets out the requirements for computer-aided systems in a regulated pharmaceutics environment.

One important task of monitoring processes is to make measurement data available in the locations where local decisions depend on them. halstrups-walcher display panels are the optimum solution for this task:

<table>
<thead>
<tr>
<th>Product</th>
<th>PUC 44</th>
<th>PUC 24</th>
<th>PUC 28 (K)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Details on</td>
<td>p. 24 + p. 25</td>
<td>p. 14</td>
<td>p. 15</td>
</tr>
<tr>
<td>Special features</td>
<td>Multi-channel process display with touch screen - Values, curves, bar graph, vector can be displayed - 4 alarms per channel - Modbus/BACnet connection</td>
<td>Cleanroom panel with integrated differential pressure sensor for climate data display, temperature/humidity measuring transmitter can be connected</td>
<td>Process panel with integrated differential pressure sensor for climate data display, temperature/humidity measuring transmitter can be connected</td>
</tr>
<tr>
<td>Application</td>
<td>Process monitoring for cleanrooms and control cabinets (machines, plants)</td>
<td>Process monitoring for cleanrooms (Pa, °C, % rF)</td>
<td>Process monitoring panel (optional: with calibration connection) (Pa, °C, % rF)</td>
</tr>
<tr>
<td>Measurement Range</td>
<td>Up to 4 external analogue values of any phys./chem. values</td>
<td>± 100 or ± 250 Pa, freely scalable within this range, % rF/°C. Depending on the connected measuring transmitter</td>
<td></td>
</tr>
<tr>
<td>Degree of measurement uncertainty</td>
<td>Depending on the connected measuring transmitters</td>
<td>Differential pressure on board: 0.5 % of max. value (standard) (0.3 Pa margin of error for the reference)</td>
<td></td>
</tr>
<tr>
<td>Display</td>
<td>Touch-display (TFT), coloured, 3.5”, 320 x 240 pixels</td>
<td>LED-display, 3 lines</td>
<td></td>
</tr>
<tr>
<td>Alerting</td>
<td>Visually/acoustically, cf. p. 24</td>
<td>Relay outputs, acoustic alarm</td>
<td></td>
</tr>
<tr>
<td>Networking</td>
<td>Modbus RTU, BACnet MS/TP</td>
<td>RS232, PROFIBUS DP (both optional)</td>
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</tbody>
</table>

ACCESSORIES

Accessories for PUC 24 and PUC 28 (K) on p. 11.

Parameterisation PUC44 ¹) On-site parameterisation (PUC.44) according to customer specifications in the order key cf. p. 25

Installation PUC44 ²) Flush-mounted box ³) for masonry wall installations

| Order-No. | 9601.0188 |

¹) The parameterisation of the PUC 44 takes place via the intuitive touch menu. It can be performed by the commissioner without further training.

²) All PUC series devices have been specifically designed for installation in cleanroom walls and thus have a minimal installation depth. The versions PUC44-2/-3 and PUC24 also feature a hygienic design. A recessed socket is not required for cleanroom installations. It is used for mounting the types PUC44-1 and -2 in brick walls.

³) Recessed area for plastering the flush-mounted box into the wall: 160 mm x 160 mm, 75 mm (width x height, depth)