Product family
DELTA-line for Differential pressure measurement
Areas of operation

The main function of the DELTA-line instruments is the monitoring and control of filters, compressors and pumps for the following applications:

- Heat transfer oil plants
- Marine boilers, pressure vessels, bilge-water collection
- Drinking and cooling-water treatment plants
- Pressure-boosting stations
- Heating technology
- Fire-extinguishing systems

Typical markets for these products are the shipbuilding industry, process heating technology, the heating, ventilation and air-conditioning industries, the water/wastewater industry, and machine building and plant construction.
Key buying factors

Robust: Developed for harsh environments
The robust aluminium case and the shatterproof window protect the instrument from mechanical effects. Thus, a long service life is guaranteed, even under harsh ambient conditions.

Versatile: Two indicators in one instrument
Alongside the differential pressure indication, the instrument also features an integrated working pressure indication. Thus, an additional measurement and sealing point is avoided and further effort and cost is saved. Thanks to the large mechanical differential pressure indicator with 100 mm diameter, a user-friendly and precise readability of the measured value is ensured - even from a distance away.

Safe: Approvals and certificates
For measuring and switching instruments, which must ensure the safety of technical plant, excellent quality is a must. This is certified for the differential pressure gauge with switching function, DELTA-comb with component testing model DPGS40TA, through several approvals and certificates. SIL2 certificate, flow monitor with safety function in accordance with VdTÜV code of practice “Flow 100” and Germanischer Lloyd, confirms the reliability of this instrument type.
Instrument construction

Robustness, versatility and safety are also reflected in the construction. Individual components, perfectly matched to each other, make for the highest quality.

Example: DELTA-comb

1. Shatterproof window with plug screws for zero adjustment and switch point setting.
2. Case ring
3. Dial
4. Movement holder with movement and micro switch
5. Working pressure indication
6. Upper part of measuring cell
7. Lower part of measuring cell
8. Compression springs
9. Separating diaphragm
10. Linkage (transmits the displacement of the diaphragm to the measuring element)

Window with setting functionality

Via the plug screws at the window, the switch points can be set easily and conveniently. Also, in order to correct the zero point, the window does not need to be removed. In this way the instrument fulfils the high requirements for IP 65 ingress protection.

Versatility

In the standard version, the measuring cell is manufactured out of aluminium. The option of stainless steel enables operation in corrosive or aggressive media and is thus also suitable for special thermal oils.
Worldwide approvals

High-quality components are essential for safe and reliable production processes and technical plant. They are a precondition for highly efficient processes, helping to avoid danger to people, environment and property. Rigorous testing of the instruments used, by national and international authorised bodies, results in reliability. The DELTA-line instruments offer a wide range of approvals and certification for the various different markets and applications.

For all models

Additionally for model DPGS40TA

Switching instrument with one or two micro switches

DELTA-comb with component testing
DPGS40TA

Indicate and switch

- SIL certificate
- Flow monitor with safety function in accordance with VdTÜV code of practice ‘Flow 100’
- Germanischer Lloyd approval
- Simultaneous indication of differential pressure and working pressure
- Switching function in response to a specific differential pressure
- Switch points can be set from the front
- Option: Protection against unauthorised access by lead-sealing
- Data sheet PV 27.22
**Mechanical measuring instrument**

**DELTA-plus**

**DPG40**

**Transmitter**

**DELTA-trans**

**DPGT40**

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**Indicate**

- Simultaneous indication of differential pressure and working pressure
- Cost-effective, competitively priced

**Control**

- Simultaneous indication of differential pressure and working pressure
- An electronic angle encoder (non-contact, and therefore completely free from wear and friction) determines the position of the pointer shaft.
- From this, the electrical output signal proportional to the pressure, e.g. 4 … 20 mA, is produced, which then acts to transmit the signal to the control room.

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- Data sheet PM 07.20
- Data sheet PV 17.19
Switching instrument with one or two micro switches

**DELTA-switch DPS40**

Switching instrument with one or two micro switches

**DELTA-comb DPGS40**

**Switch**
- Switching function in response to a specific differential pressure
- Switch points settable from the front: window with plug screws for switch point setting.

**Indicate and switch**
- Simultaneous indication of differential pressure and working pressure
- Switching function in response to a specific differential pressure
- Switch points settable from the front: window with plug screws for zero adjustment and switch point setting.

- Data sheet PV 27.21
- Data sheet PV 27.20
## DELTA-line product family

### Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal size of the differential pressure indication</td>
<td>100 mm</td>
</tr>
<tr>
<td>Nominal size of the working pressure indication</td>
<td>22 mm</td>
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<tr>
<td>Differential pressure measuring range</td>
<td>0 … 0.25 to 0 … 10 bar</td>
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<tr>
<td>Operating pressure</td>
<td>max. 0…25 bar</td>
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<tr>
<td>Process connection</td>
<td>2 x G ¼ female, lower mount (LM), in-line</td>
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<tr>
<td>Centre distance</td>
<td>26 mm</td>
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<tr>
<td>Overpressure safety</td>
<td>Max. 25 bar on both sides</td>
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<tr>
<td>Accuracy class</td>
<td>for differential pressure indication = 2.5 % (optional 1.6 %)</td>
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<tr>
<td></td>
<td>for working pressure indication = 4 %</td>
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<tr>
<td>Ingress protection</td>
<td>IP 65</td>
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<tr>
<td>Material of the measuring cell (wetted)</td>
<td>Aluminium, black lacquered</td>
</tr>
<tr>
<td></td>
<td>Optionally stainless steel</td>
</tr>
</tbody>
</table>

### Accessories

- 4-way valve
  - Model 910.25
- Compression fitting with ferrule
  - Model 910.14
- Front bezel