Proline Promass P 100
Coriolis flowmeter

The specialist for life sciences with an ultra-compact transmitter

Benefits:
- Highest process quality – fully compliant to industry requirements
- Fewer process measuring points – multivariable measurement (flow, density, temperature)
- Space-saving installation – no in/outlet run needs
- Space-saving transmitter – full functionality on smallest footprint
- Time-saving local operation without additional software and hardware – integrated web server
- Integrated verification – Heartbeat Technology

Specs at a glance
- **Max. measurement error** Mass flow (liquid): ±0.1 % Volume flow (liquid): ±0.1 % Density (liquid): ±0.0005 g/cm³
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 lb/min)
- **Medium temperature range** Standard: −50 to +150 °C (−58 to +302 °F) Option: −50 to +205 °C (−58 to +401 °F)
- **Max. process pressure** PN 63, Class 300, 40K
- **Wetted materials** Measuring tube: 1.4435 (316L) Connection: 1.4435 (316L); 1.4404 (316/316L)

**Field of application:** Promass P 100 offers the enhanced performance of a bent tube meter and the drainability of a straight tube meter without any compromise. Combined with the smallest transmitter housing available today it delivers full performance on the smallest footprint. Designed for applications in sterile environments where space is a premium, Promass P 100 will be the preferred choice for system integrators, skid builders and equipment manufacturers.

Features and specifications
Liquids

**Measuring principle**
Coriolis

**Product headline**
Specialist for life sciences with an ultra-compact transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

**Sensor features**

**Transmitter features**

**Nominal diameter range**
DN 8 to 50 (¼ to 2”)

**Wetted materials**
Measuring tube: 1.4435 (316L)  
Connection: 1.4435 (316L); 1.4404 (316/316L)

**Measured variables**
Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration

**Max. measurement error**
Mass flow (liquid): ±0.1 %  
Volume flow (liquid): ±0.1 %  
Density (liquid): ±0.0005 g/cm³
## Liquids

<table>
<thead>
<tr>
<th><strong>Measuring range</strong></th>
<th>0 to 70 000 kg/h (0 to 2570 lb/min)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Max. process pressure</strong></td>
<td>PN 63, Class 300, 40K</td>
</tr>
</tbody>
</table>
| **Medium temperature range**| Standard: –50 to +150 °C (–58 to +302 °F)  
Option: –50 to +205 °C (–58 to +401 °F) |
| **Ambient temperature range**| Standard: –40 to +60 °C (–40 to +140 °F)  
Option: –50 to +60 °C (–58 to +140 °F) |
| **Sensor housing material** | 1.4301 (304), corrosion resistant    |
| **Transmitter housing material** | Compact: AlSi10Mg, coated           
Compact/ultra-compact: 1.4301 (304) |
| **Degree of protection**    | Standard: IP66/67, type 4X enclosure  
Option: IP69                         |
| **Display/Operation**       | 4-line backlit display available (no local operation)  
Configuration via web browser and operating tools possible |
| **Outputs**                 | 4-20 mA HART (active)               
Pulse/frequency/switch output (passive) |
| **Inputs**                  | None                                |
| **Digital communication**   | HART, Modbus RS485, EtherNet/IP, PROFIBUS DP, PROFINET |
Liquids

**Power supply**
DC 20 to 30 V

**Hazardous area approvals**
ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC

**Product safety**
CE, C-Tick, EAC marking

**Metrological approvals and certificates**
Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)
Heartbeat Verification: Heartbeat Technology complies with requirements for traceable verification according to ISO 9001:2008, chapter 7.6. a (TUV attestation)

**Pressure approvals and certificates**
PED, CRN

**Material certificates**
3.1 material

**Hygienic approvals and certificates**
3-A, EHEDG, ASME BPE, ISPE, cGMP

Gas

**Measuring principle**
Coriolis

**Hygienic approvals and certificates**
cGMP

Density/Concentration

**Measuring principle**
Coriolis
Density/Concentration

**Product headline**
Specialist for life sciences with an ultra-compact transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

**Sensor features**

**Transmitter features**

**Nominal diameter range**
DN 8 to 50 (⅜ to 2”)

**Wetted materials**
Measuring tube: 1.4435 (316L)
Connection: 1.4435 (316L); 1.4404 (316/316L)

**Measured variables**
Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration

**Max. measurement error**
Mass flow (liquid): ±0.1 %
Volume flow (liquid): ±0.1 %
Density (liquid): ±0.0005 g/cm³

**Measuring range**
0 to 70 000 kg/h (0 to 2570 lb/min)
### Density/Concentration

<table>
<thead>
<tr>
<th><strong>Max. process pressure</strong></th>
<th>PN 63, Class 300, 40K</th>
</tr>
</thead>
</table>
| **Medium temperature range** | Standard: −50 to +150 °C (−58 to +302 °F)  
Option: −50 to +205 °C (−58 to +401 °F) |
| **Ambient temperature range** | Standard: −40 to +60 °C (−40 to +140 °F)  
Option: −50 to +60 °C (−58 to +140 °F) |
| **Sensor housing material** | 1.4301 (304), corrosion resistant |
| **Transmitter housing material** | Compact: AlSi10Mg, coated  
Compact/ultra-compact: 1.4301 (304) |
| **Degree of protection** | Standard: IP66/67, type 4X enclosure  
Option: IP69 |
| **Display/Operation** | 4-line backlit display available (no local operation)  
Configuration via web browser and operating tools possible |
| **Outputs** | 4-20 mA HART (active)  
Pulse/frequency/switch output (passive) |
| **Inputs** | None |
| **Digital communication** | HART, Modbus RS485, EtherNet/IP, PROFINET/PROFIBUS DP, PROFINET |
| **Power supply** | DC 20 to 30 V |
Density/Concentration

**Hazardous area approvals**
ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC

**Product safety**
CE, C-Tick, EAC marking

**Metrological approvals and certificates**
Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)
Heartbeat Verification: Heartbeat Technology complies with requirements for traceable verification according to ISO 9001:2008, chapter 7.6. a (TUV attestation)

**Pressure approvals and certificates**
PED, CRN

**Material certificates**
3.1 material

**Hygienic approvals and certificates**
3-A, EHEDG, ASME BPE, ISPE, cGMP

More information [www.us.endress.com/8P1B](http://www.us.endress.com/8P1B)