More information and current pricing: www.us.endress.com/80P

Promass 80P

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
- Cost-effective – dedicated design for standard applications
- Safe operation – display provides easy readable process information
- Fully industry compliant – IEC/EN/NAMUR

Specs at a glance
- **Max. measurement error** Mass flow (liquid): ±0.15 % Volume flow (liquid): ±0.15 % Mass flow (gas): ±0.5 % Density (liquid): ±0.0005 g/cm³
- **Measuring range** 0 to 70 000 kg/h (0 to 2570 lb/min)
- **Medium temperature range** -50 to +200 °C (−58 to +392 °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 offers the enhanced performance of a bent tube meter and the drainability of a straight tube meter without any compromise, between accuracy and drainability. Combined with the proven Promass 80 transmitter with push buttons, Promass 80P offers a cost effective solution for applications in sterile environments in the life sciences industry.

Features and specifications

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**Liquids**

**Product headline**
The specialist for life sciences with a compact or remote transmitter. Dedicated for 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

**Max. measurement error**
Mass flow (liquid): ±0.15 %
Volume flow (liquid): ±0.15 %
Mass flow (gas): ±0.5 %
Density (liquid): ±0.0005 g/cm³

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

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<th><strong>Max. process pressure</strong></th>
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<td><strong>Medium temperature range</strong></td>
<td>–50 to +200 °C (–58 to +392 °F)</td>
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</table>
| **Ambient temperature range** | Standard: –20 to +60 °C (–4 to +140 °F)  
Option: –40 to +60 °C (–40 to +140 °F) |
| **Sensor housing material** | 1.4301 (304), corrosion resistant |
| **Transmitter housing material** | Powder-coated die-cast aluminium  
1.4301 (304), sheet  
CF3M (316L), cast |
| **Degree of protection** | IP67, type 4X enclosure. Remote transmitter: IP67, type 4X enclosure |
| **Display/Operation** | 2-line backlit display with push buttons  
Configuration via local display and operating tools possible |
| **Outputs** | 3 outputs:  
0-20 mA (active)/4-20 mA (active/passive)  
Pulse/frequency/switch output (passive) |
| **Inputs** | Status input |
| **Digital communication** | HART  
PROFIBUS PA |
Liquids

**Power supply**
DC 16 to 62 V
AC 85 to 260 V (45 to 65 Hz)
AC 20 to 55 V (45 to 65 Hz)

**Hazardous area approvals**
ATEX, IECEx, FM, CSA, NEPSI

**Other approvals and certificates**
3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR, SIL PED, CRN
3-A, FDA, ASME BPE, ISPE

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

**Functional safety**
Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511

**Metrological approvals and certificates**
Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR

**Pressure approvals and certificates**
PED, CRN

**Material certificates**
3.1 material

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

Gas

**Measuring principle**
Coriolis
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### Max. process pressure
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### Medium temperature range
−50 to +200 °C (−58 to +392 °F)

### Ambient temperature range
- Standard: −20 to +60 °C (−4 to +140 °F)
- Option: −40 to +60 °C (−40 to +140 °F)

### Sensor housing material
1.4301 (304), corrosion resistant

### Transmitter housing material
- Powder-coated die-cast aluminium
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- 3 outputs:
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- Status input

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- HART
- PROFIBUS PA
Gas

**Power supply**

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AC 85 to 260 V (45 to 65 Hz)  
AC 20 to 55 V (45 to 65 Hz)

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**Pressure approvals and certificates**

PED, CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A, FDA, ASME BPE, ISPE

Density

**Measuring principle**

Coriolis
### Characteristic / Application

Coriolis mass flowmeter complying with ASME BPE, ISPE, FDA, 3-A

| **Ambient temperature** | -20...+65°C  
|                         | (-4...+140°F) |
| **Process temperature** | -50...+200°C  
|                         | (-58...+392°F) |
| **Process pressure**    | PN 16...40  
|                         | Cl 150...300  
|                         | JIS 20...40K |
| **Wetted parts**        | 316L/1.4435 |

### Output

4...20mA  
Pulse/Frequency  
Status

| **Certificates / Approvals** | ATEX  
|                             | FM  
|                             | CSA IECEx TIIS NEPSI |

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### Density/Concentration

| **Measuring principle** | Coriolis |
| **Product headline** | The specialist for life sciences with a compact or remote transmitter. Dedicated for applications under sterile conditions in the life sciences industry. |
Density/Concentration

**Sensor features**

**Transmitter features**

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Density/Concentration

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## Density/Concentration

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CE, C-tick, EAC marking

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### Pressure approvals and certificates
PED, CRN

### Material certificates
3.1 material

### Hygienic approvals and certificates
3-A, FDA, ASME BPE, ISPE

More information [www.us.endress.com/80P](http://www.us.endress.com/80P)