

Proline Promass P 300

科里奥利质量流量计

生命科学行业专用流量计，搭配操作简便的一体式变送器



优势:

- 最高过程质量：完全满足行业要求
- 较少过程测量点：多参数测量(流量、密度、温度)
- 节省安装空间：无前/后直管段长度要求
- 完整查看过程信息和诊断信息：提供多种用户自定义输入/输出组合方式和现场总线
- 降低复杂性和多样性：用户自定义输入/输出功能
- 自带验证功能：内置Heartbeat Technology (心跳技术)

产品规格参数

- **最大测量误差** 质量流量（液体）：±0.10 % 体积流量（液体）：±0.10 % 质量流量（气体）：±0.50 % 密度（液体）：±0.0005 g/cm³
- **测量范围** 0...70 000 kg/h (0...2570 lb/min)
- **介质温度范围** 标准：-50...+150 °C (-58...+302 °F) 可选：-50...+205 °C (-58...+401 °F)
- **最大过程压力** PN 40, Cl. 150, 20K
- **接液部件材质** 测量管：1.4435 (316L) 连接部件：1.4435 (316L)、1.4404 (316/316L)

详细信息和最新价格参见:

www.endress.com.cn/8P3B

应用领域: Promass P是生命科学行业的无菌条件下的专用流量计。适用于要求严格符合准则和法规要求的生物技术应用。与一体式变送器配套使用，Promass P 300操作灵活，系统集成便捷：在仪表的同一侧接线、远程显示、改进的连接方式。Heartbeat Technology (心跳技术) 确保始终合规，保证过程安全。

特征和规格

气体

测量原理

科里奥利质量流量

产品标题

Specialist for life sciences with a compact, easily accessible transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

卫生型认证和证书

cGMP

液体

测量原理

科里奥利质量流量

产品标题

Specialist for life sciences with a compact, easily accessible transmitter. Dedicated to applications under sterile conditions in the life sciences industry.

传感器特点

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. ASME BPE, 3 - A and EHEDG conform & low delta ferrite. Electropolished measuring tube in 1.4435 (316L). Fast recovery from CIP/SIP.

变送器特点

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact hygienic dual-compartment housing with IP69 and up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.

液体

公称口径范围DN 8...50 ($\frac{3}{8}$...2")**接液部件材质**

测量管：1.4435 (316L)

连接部件：1.4435 (316L)、1.4404 (316/316L)

测量变量

质量流量、密度、温度、体积流量、校正体积流量、参考密度、浓度

最大测量误差

质量流量（液体）：±0.10 %

体积流量（液体）：±0.10 %

质量流量（气体）：±0.50 %

密度（液体）：±0.0005 g/cm³**测量范围**

0...70 000 kg/h (0...2570 lb/min)

最大过程压力

PN 40, Cl. 150, 20K

介质温度范围

标准：-50...+150 °C (-58...+302 °F)

可选：-50...+205 °C (-58...+401 °F)

环境温度范围

标准：-40...+60 °C (-40...+140 °F)

可选：-50...+60 °C (-58...+140 °F)

传感器外壳材质

1.4301 (304), 耐腐蚀

变送器外壳材质

铝合金AlSi10Mg涂层；卫生型不锈钢变送器

防护等级

IP66/67, type 4X

IP69

液体

显示/操作

四行背光显示，触摸键操作（外部操作）
通过现场显示屏和调试软件设置
提供分离型显示单元

输出

3路输出：
4...20 mA HART（有源/无源）
4...20 mA WirelessHART
4...20 mA（有源/无源）
脉冲/频率/开关量输出（有源/无源）
双脉冲输出（有源/无源）
继电器输出

输入

状态输入
4...20 mA输入

数字通信

HART、PROFIBUS PA、FOUNDATION Fieldbus、Modbus RS485、
Profinet、Ethernet/IP、OPC-UA

电源

24 VDC
100...230 VAC
100...230 VAC / 24 VDC（非危险区）

防爆认证

ATEX、IECEX、cCSAus、NEPSI、INMETRO、EAC

产品安全性

CE认证、C-tick认证、EAC认证

功能安全性

功能安全遵循IEC 61508标准，允许在IEC 61511标准规定的安全应用中
使用

液体	<p>计量认证和证书 在认证标定装置上执行标定（符合ISO/IEC 17025标准） Heartbeat Technology（心跳技术）符合ISO 9001:2008标准章节7.6 a的溯源校验要求（TÜV认证）</p> <hr/> <p>压力认证和证书 PED、CRN</p> <hr/> <p>材料证书 3.1材料证书</p> <hr/> <p>卫生型认证和证书 3-A、EHEDG、ASME BPE、ISPE</p>
密度	<p>测量原理 科里奥利质量流量</p> <hr/> <p>产品标题 Specialist for life sciences with a compact, easily accessible transmitter. Dedicated to applications under sterile conditions in the life sciences industry.</p> <hr/> <p>传感器特点 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. ASME BPE, 3 - A and EHEDG conform & low delta ferrite. Electropolished measuring tube in 1.4435 (316L). Fast recovery from CIP/SIP.</p>

密度**变送器特点**

Full access to process and diagnostic information – numerous, freely combinable I/Os and fieldbuses. Reduced complexity and variety – freely configurable I/O functionality. Integrated verification – Heartbeat Technology.

Compact hygienic dual-compartment housing with IP69 and up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.

Density/Concentration**测量原理**

科里奥利质量流量

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公称口径范围

DN 8 to 50 ($\frac{3}{8}$ to 2")

Density/Concentration**接液部件材质**

Measuring tube: 1.4435 (316L)

Connection: 1.4435 (316L); 1.4404 (316/316L)

测量变量

Mass flow, density, temperature, volume flow, corrected volume flow, reference density, concentration

最大测量误差Mass flow (liquid): $\pm 0.10\%$ Volume flow (liquid): $\pm 0.10\%$ Mass flow (gas): $\pm 0.50\%$ Density (liquid): $\pm 0.0005 \text{ g/cm}^3$ **测量范围**

0 to 70 000 kg/h (0 to 2570 lb/min)

最大过程压力

PN 40, Class 150, 20K

介质温度范围Standard: -50 to $+150$ °C (-58 to $+302$ °F)Option: -50 to $+205$ °C (-58 to $+401$ °F)**环境温度范围**Standard: -40 to $+60$ °C (-40 to $+140$ °F)Option: -50 to $+60$ °C (-58 to $+140$ °F)**传感器外壳材质**

1.4301 (304), corrosion resistant

变送器外壳材质

AlSi10Mg, coated; stainless steel for hygienic transmitter design

防护等级

IP66/67, type 4X enclosure

IP69

Density/Concentration**显示/操作**

4-line backlit display with touch control (operation from outside)
Configuration via local display and operating tools possible
Remote display available"

输出

3 outputs:
4-20 mA HART (active/passive)
4-20 mA WirelessHART
4-20 mA (active/passive)
Pulse/frequency/switch output (active/passive)
Double pulse output (active/passive)
Relay output

输入

Status input
4-20 mA input

数字通信

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus
RS485, Profinet, Ethernet/IP, OPC-UA

电源

DC 24 V
AC 100 to 230 V
AC 100 to 230 V / DC 24 V (non-hazardous area)

防爆认证

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC, UK Ex

产品安全性

CE, C-tick, EAC marking

功能安全性

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

Density/Concentration

计量认证和证书

Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)

Heartbeat Technology complies with the requirements for measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)

压力认证和证书

PED, CRN

材料证书

3.1 material

卫生型认证和证书

3-A, EHEDG, ASME BPE, ISPE, cGMP

更多信息 www.endress.com.cn/8P3B