

Proline Promass I 300

科里奥利质量流量计

同时进行在线粘度测量和流量测量，搭配操作简便的一体式变送器



优势:

- 节能：通径结构设计保证最小压损
- 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）：±0.15 %（标准）、±0.10 %（可选） 体积流量（液体）：±0.15 % 质量流量（气体）：±0.75 % 密度（液体）：±0.0005 g/cm³
- **测量范围** 0...180 000 kg/h (0...6615 lb/min)
- **介质温度范围** -40...+150 °C (-40...+302 °F)
- **最大过程压力** PN 100, Cl. 600, 63K
- **接液部件材质** 测量管：1.4539 (904L) 连接部件：1.4404 (316/316L)

详细信息和最新价格参见:

www.endress.com.cn/813B

应用领域: Promass I 采用单直管设计，进行在线粘度测量的同时，可完成质量流量、密度和温度测量。Promass I 300 配备一体式变送器，在操作和系统集成方面提供了高度的灵活性：单端访问、远程显示、多种通信方式。Heartbeat Technology (心跳技术) 始终确保合规性和过程安全性。

特征和规格

气体

测量原理

科里奥利质量流量

产品标题

Combines in-line viscosity and flow measurement with a compact, easily accessible transmitter.

Measuring liquids and gases in applications requiring low pressure loss and gentle fluid treatment.

传感器特点

Energy - saving – full-bore design enables minimal pressure loss. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. Straight, easy-to-clean single-tube system. TMB technology. Measuring tube made of Titanium.

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

公称口径范围

DN 8...80 ($\frac{3}{8}$...3")

接液部件材质

测量管：1.4539 (904L)

连接部件：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

气体

最大测量误差

质量流量（液体）：±0.15 %（标准）、±0.10 %（可选）

体积流量（液体）：±0.15 %

质量流量（气体）：±0.75 %

密度（液体）：±0.0005 g/cm³

测量范围

0...180 000 kg/h (0...6615 lb/min)

最大过程压力

PN 100, Cl. 600, 63K

介质温度范围

-40...+150 °C (-40...+302 °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

带铝合金AlSi10Mg涂层：1.4409 (CF3M), 类似316L；不锈钢变送器外壳

防护等级

标准：IP66/67, Type 4X

可选：IP69

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

气体

输出

3路输出：

4...20 mA HART（有源/无源）

4...20 mA（有源/无源）

脉冲/频率/开关量输出（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

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）

压力认证和证书

PED、CRN

气体	材料证书 3.1材料证书
	卫生型认证和证书 3-A、EHEDG
液体	测量原理 科里奥利质量流量
	产品标题 Combines in-line viscosity and flow measurement with a compact, easily accessible transmitter. . Measuring liquids and gases in applications requiring low pressure loss and gentle fluid treatment.
	传感器特点 Energy - saving – full-bore design enables minimal pressure loss. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. Straight, easy-to-clean single-tube system. TMB technology. Measuring tube made of Titanium.
	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 dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.
	公称口径范围 DN 8...80 ($\frac{3}{8}$...3")
接液部件材质 测量管：9级钛 连接部件：2级钛	

液体

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、粘度

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...180 000 kg/h (0...6600 lb/min)

最大过程压力

PN 100, Cl. 600, 63K

介质温度范围

-50...+150 °C (-58...+302 °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

1.4301/1.4307 (304L), 耐腐蚀

变送器外壳材质

带铝合金AlSi10Mg涂层：1.4409 (CF3M), 类似316L；不锈钢或卫生型变送器外壳

防护等级

IP66/67, type 4X

IP69

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

液体

输出

3路输出：

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4...20 mA（有源/无源）

脉冲/频率/开关量输出（有源/无源）

继电器输出

输入

状态输入

4...20 mA输入

数字通信

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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

计量认证和证书

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压力认证和证书

PED、CRN

液体	<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</p>
密度	<p>测量原理 科里奥利质量流量</p> <hr/> <p>产品标题 Combines in-line viscosity and flow measurement with a compact, easily accessible transmitter. . Measuring liquids and gases in applications requiring low pressure loss and gentle fluid treatment.</p> <hr/> <p>传感器特点 Energy - saving – full-bore design enables minimal pressure loss. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. Straight, easy-to-clean single-tube system. TMB technology. Measuring tube made of Titanium.</p> <hr/> <p>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 dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access. Remote display available.</p>
Density/Concentration	<p>测量原理 科里奥利质量流量</p>

Density/Concentration

产品标题

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公称口径范围

DN 8 to 80 ($\frac{3}{8}$ to 3")

接液部件材质

Measuring tube: Titanium grade 9

Connection: Titanium grade 2

测量变量

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

最大测量误差

Mass flow (liquid): ± 0.10 %

Volume flow (liquid): ± 0.10 %

Mass flow (gas): ± 0.50 %

Density (liquid): ± 0.0005 g/cm³

Density/Concentration**测量范围**

0 to 180 000 kg/h (0 to 6600 lb/min)

最大过程压力

PN 100, Class 600, 63K

介质温度范围

-50 to +150 °C (-58 to +302 °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

1.4301/1.4307 (304L), corrosion resistant

变送器外壳材质

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; stainless steel for hygenic transmitter design

防护等级

IP66/67, type 4X enclosure

IP69

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 (active/passive)

Pulse/frequency/switch output (active/passive)

Relay output

输入

Status input

4-20 mA input

Density/Concentration

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

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, cGMP

粘度

测量原理

科里奥利质量流量

粘度

产品标题

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公称口径范围

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接液部件材质

Measuring tube: Titanium grade 9

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测量变量

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

最大测量误差

Mass flow (liquid): ± 0.10 %

Volume flow (liquid): ± 0.10 %

Mass flow (gas): ± 0.50 %

Density (liquid): ± 0.0005 g/cm³

粘度

测量范围

0 to 180 000 kg/h (0 to 6600 lb/min)

最大过程压力

PN 100, Class 600, 63K

介质温度范围

-50 to +150 °C (-58 to +302 °F)

环境温度范围

Standard: -40 to +60 °C (-40 to +140 °F)

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传感器外壳材质

1.4301/1.4307 (304L), corrosion resistant

变送器外壳材质

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; stainless steel for hygienic transmitter design

防护等级

" IP66/67, type 4X enclosure

IP69"

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 (active/passive)

Pulse/frequency/switch output (active/passive)

Relay output

输入

Status input 4-20 mA input

粘度

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

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计量认证和证书

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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, cGMP

更多信息 www.endress.com.cn/8I3B