

# Proline Promass E 300

## 科里奥利质量流量计

科里奥利质量流量计，搭配操作简便的一体式变送器



详细信息和最新价格参见:

[www.endress.com.cn/8E3B](http://www.endress.com.cn/8E3B)

### 优势:

- 使用经济：多用途仪表；传统体积流量计的替代优选
- 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）： $\pm 0.15\%$ （标准）、 $\pm 0.10\%$ （可选） 体积流量（液体）： $\pm 0.15\%$  质量流量（气体）： $\pm 0.5\%$  密度（液体）： $\pm 0.0005 \text{ g/cm}^3$
- **测量范围** 0...180 000 kg/h (0...6615 lb/min)
- **介质温度范围**  $-40\text{...}+150 \text{ }^\circ\text{C}$  ( $-40\text{...}+302 \text{ }^\circ\text{F}$ )
- **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)

**应用领域:** Promass E坚固耐用，是长期使用的经济型解决方案，用于在不同行业的各种标准应用中进行高精度液体和气体测量。与一体式变送器配套使用，Promass E 300操作灵活，系统集成便捷：操作和接线在变送器的同一侧，可选远程显示、可自由配置的I/O功能和多样的系统总线集成方式。Heartbeat Technology 心跳技术确保测量的可靠性并延长重新校准的周期。

### 特征和规格

## 液体

### 测量原理

科里奥利质量流量

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### 产品标题

Flowmeter with minimized total cost of ownership and a compact, easily accessible transmitter.

Accurate measurement of liquids and gases for a wide range of standard applications.

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### 传感器特点

Cost-effective – multi-purpose device; an alternative to conventional volumetric flowmeters. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in-/outlet run needs.

Compact dual-tube sensor. Medium temperature up to +150 °C (+302 °F).

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### 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.

Process pressure up to 100 bar (1450 psi). Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access.

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### 公称口径范围

DN 8...80 (3/8...3")

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### 接液部件材质

测量管：1.4539 (904L)

连接部件：1.4404 (316/316L)

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### 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

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## 液体

**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）：±0.5 %

密度（液体）：±0.0005 g/cm<sup>3</sup>**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**

铝合金AlSi10Mg涂层；卫生型不锈钢变送器

**防护等级**

标准：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：

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  
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）

### 船级认证和证书

LR approval, DNV GL approval, ABS approval, BV approval, CCS approval

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**液体****压力认证和证书**

PED、CRN

**材料证书**

3.1材料证书

**卫生型认证和证书**

3-A、EHEDG

**气体****测量原理**

科里奥利质量流量

**产品标题**

Flowmeter with minimized total cost of ownership and a compact, easily accessible transmitter.

Accurate measurement of liquids and gases for a wide range of standard applications.

**传感器特点**

Cost-effective – multi-purpose device; an alternative to conventional volumetric flowmeters. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in-/outlet run needs.

Compact dual-tube sensor. Medium temperature up to +150 °C (+302 °F).

**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.

Process pressure up to 100 bar (1450 psi). Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access.

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## 气体

**公称口径范围**

DN 8...80 (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

**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）：±0.5 %

密度（液体）：±0.0005 g/cm<sup>3</sup>**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**

铝合金AlSi10Mg涂层；卫生型不锈钢变送器

**防护等级**

标准：IP66/67, type 4X

IP69

## 气体

**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

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**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

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**输入**

状态输入  
4...20 mA输入

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**数字通信**

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

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**电源**

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

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**防爆认证**

ATEX、IECEX、cCSAus、NEPSI、INMETRO、EAC

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**产品安全性**

CE认证、C-tick认证、EAC认证

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**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  
中使用

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气体	<b>计量认证和证书</b> 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）
	<b>船级认证和证书</b> LR approval, DNV GL approval, ABS approval, BV approval, CCS approval
	<b>压力认证和证书</b> PED、CRN
	<b>材料证书</b> 3.1材料证书
	<b>卫生型认证和证书</b> 3-A、EHEDG
蒸汽	<b>测量原理</b> 科里奥利质量流量
	<b>产品标题</b> Flowmeter with minimized total cost of ownership and a compact, easily accessible transmitter. Accurate measurement of liquids and gases for a wide range of standard applications.
	<b>船级认证和证书</b> LR approval, DNV GL approval, ABS approval, BV approval
密度	<b>测量原理</b> 科里奥利质量流量



**密度****产品标题**

Flowmeter with minimized total cost of ownership and a compact, easily accessible transmitter.

Accurate measurement of liquids and gases for a wide range of standard applications.

**传感器特点**

Cost-effective – multi-purpose device; an alternative to conventional volumetric flowmeters. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in-/outlet run needs.

Compact dual-tube sensor. Medium temperature up to +150 °C (+302 °F).

**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.

Process pressure up to 100 bar (1450 psi). Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access.

**Density/Concentration****测量原理**

科里奥利质量流量

**产品标题**

Flowmeter with minimized total cost of ownership and a compact, easily accessible transmitter.

Accurate measurement of liquids and gases for a wide range of standard applications.

## Density/Concentration

### 传感器特点

Cost-effective – multi-purpose device; an alternative to conventional volumetric flowmeters. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in-/outlet run needs.

Compact dual-tube sensor. Medium temperature up to +150 °C (+302 °F).

### 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.

Process pressure up to 100 bar (1450 psi). Compact dual-compartment housing with up to 3 I/Os. Backlit display with touch control and WLAN access.

### 公称口径范围

DN 8 to 80 (3/8 to 3")

### 接液部件材质

Measuring tube: 1.4539 (904L)

Connection: 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): ±0.15 % (standard), ±0.10 % (option)

Volume flow (liquid): ±0.15 %

Mass flow (gas): ±0.50 %

Density (liquid): ±0.0005 g/cm<sup>3</sup>

### 测量范围

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

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**Density/Concentration****最大过程压力**PN 100, Class 600, 63K

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**介质温度范围**-40 to +150 °C (-40 to +302 °F)

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**环境温度范围**

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

Option: -50 to +60 °C (-58 to +140 °F)

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**传感器外壳材质**1.4301 (304), corrosion resistant

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**变送器外壳材质**AlSi10Mg, coated; stainless steel for hygienic transmitter design

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**防护等级**

Standard: IP66/67, Type 4X enclosure

IP69

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**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"

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**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

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**输入**

Status input

4-20 mA input

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**Density/Concentration****数字通信**

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

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**电源**

DC 24 V

AC 100 to 230 V

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

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**防爆认证**

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

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**产品安全性**

CE, C-tick, EAC marking

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**功能安全性**

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

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**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)

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**船级认证和证书**

LR approval, DNV GL approval, ABS approval, BV approval, CCS approval

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**压力认证和证书**

PED, CRN

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**材料证书**

3.1 material

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**卫生型认证和证书**

3-A, EHEDG, cGMP

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更多信息 [www.endress.com.cn/8E3B](http://www.endress.com.cn/8E3B)