

# Proline Promass X 300

## Coriolis akış ölçer

Kompak ve kolay erişilebilir transmiere sahip, piyasadaki en yüksek kapasiteli dört tüplü akış ölçer



### Avantajlar:

- Kârda artış - büyük miktarlar için birinci sınıf doğruluk sağlayan tek kurulum noktası
- Daha az proses ölçüm noktası - çok değişkenli ölçüm (akış, yoğunluk, sıcaklık)
- Yerden tasarruf sağlayan kurulum - giriş ve çıkışta düz boru mesafesi gerektirmez
- Proses ve hata teşhisi bilgilerine tam erişim - çok sayıda, serbestçe birleştirilebilir I/O ve fieldbus seçenekleri
- Azaltılmış karmaşıklık ve çeşitlilik - serbestçe yapılandırılabilen I/O özelliği
- Entegre doğrulama - Heartbeat Teknolojisi

Daha fazla bilgi ve güncel fiyatlandırma:

[www.tr.endress.com/8X3B](http://www.tr.endress.com/8X3B)

### Özelliklere genel bakış

- **Max. measurement error** Mass flow (liquid):  $\pm 0.10$  % (standard), 0.05 % (option) Volume flow (liquid):  $\pm 0.10$  % Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>
- **Measuring range** 0 to 4100 t/h (0 to 4520 tn. sh./h)
- **Medium temperature range** -50 to +180 °C (-58 to +356 °F)
- **Max. process pressure** PN 100, Class 600
- **Wetted materials** Measuring tube: 1.4404 (316/316L) Connection: 1.4404 (316/316L)

**Uygulama alanı:** Patentli dört tüplü Promass X, en yüksek kapasitede birinci sınıf doğruluk (%0,05) sağlar ve petrol ve gaz endüstrisindeki kara ve açık deniz uygulamalarında olağanüstü bir performans sunar. Kompak transmiere ile Promass X 300, operasyon ve sistem entegrasyonu

açısından yüksek bir esneklik sunar: tek taraftan erişim, ayrık gösterge ve gelişmiş bağlantı seçenekleri. Heartbeat Teknolojisi, proses güvenliğini daima garanti eder.

## Özellikler ve şartlar

### Liquids

#### Measuring principle

Coriolis

#### Product headline

Highest capacity four-tube flowmeter with a compact, easily accessible transmitter.

For highest flow rates and outstanding performance in on/offshore oil and gas applications.

#### Sensor features

Increased profit – single installation point providing premium accuracy for large quantities. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs.

Nominal diameter: DN 300 to 400 (12 to 16"). Four-tube system with low pressure drop. Complete exterior design made of 1.4435 (316L).

#### Transmitter features

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.

#### Nominal diameter range

DN 300 to 400 (12 to 16")

#### Wetted materials

Measuring tube: 1.4404 (316/316L)

Connection: 1.4404 (316/316L)

## Liquids

### Measured variables

Mass flow, density, temperature, volume flow, corrected volume flow (API tables), reference density, concentration

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### Max. measurement error

Mass flow (liquid):  $\pm 0.10$  % (standard), 0.05 % (option)

Volume flow (liquid):  $\pm 0.10$  %

Mass flow (gas):  $\pm 0.35$  %

Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

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### Measuring range

0 to 4100 t/h (0 to 4520 tn. sh./h)

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### Max. process pressure

PN 100, Class 600

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### Medium temperature range

-50 to +180 °C (-58 to +356 °F)

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### Ambient temperature range

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

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

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### Sensor housing material

1.4404 (316L), highest corrosion resistance

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### Transmitter housing material

AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L

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### Degree of protection

IP66/67, type 4X enclosure

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### Display/Operation

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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## Liquids

### Outputs

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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### Inputs

Status input

4-20 mA input

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### Digital communication

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

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### Power supply

DC 24 V

AC 100 to 230 V

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

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### Hazardous area approvals

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

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### Product safety

CE, C-tick, EAC marking

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### Functional safety

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

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## Liquids

### **Metrological approvals and certificates**

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)

MI-005 Liquids other than water (Hydrocarbons), LPG, cryogenic  
MI-002, PTB

### **Marine approvals and certificates**

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

### **Pressure approvals and certificates**

PED, CRN

### **Material certificates**

3.1 material

NACE MR0175/MR0103, PMI; welding test acc. to EN ISO, ASME, NORSOK

## Gas

### **Measuring principle**

Coriolis

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## Gas

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**Density/Concentration****Measuring principle**

Coriolis

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Ayrıntılı bilgi [www.tr.endress.com/8X3B](http://www.tr.endress.com/8X3B)