

# Proline Promass A 300

## Przepływomierz masowy Coriolisa

Dokładny przepływomierz jednorurowy do pomiaru bardzo małych strumieni przepływu, z wygodnym dostępem do kompaktowego przetwornika



### Korzyści:

- Niewielka przestrzeń montażowa – lekki, kompaktowy czujnik
- Najwyższa jakość produktu – samoopróżniająca konstrukcja rury pomiarowej czujnika dla wszystkich średnic nominalnych
- Bardzo wysokie bezpieczeństwo procesu – odporność na korozyjne warunki otoczenia i zatykanie rury pomiarowej czujnika
- Pełny dostęp do danych procesowych i informacji diagnostycznych – szereg swobodnie konfigurowalnych modułów We/Wy i obsługa wielu standardów komunikacji obiektowej
- Mniejsza złożoność i różnorodność – swobodna konfiguracja modułów We/Wy
- Funkcje zaawansowanej autodiagnostyki i weryfikacji poprawności działania - Technologia Heartbeat

Więcej informacji i aktualne ceny:

[www.pl.endress.com/8A3C](http://www.pl.endress.com/8A3C)

### Kluczowe parametry

- **Maksymalny błąd pomiaru** Mass flow (liquid):  $\pm 0.1$  % Volume flow (liquid):  $\pm 0.1$  % Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>
- **Zakres pomiarowy** 0 to 450 kg/h (0 to 16.54 lb/min)
- **Zakres temperatury medium** -50 to 205 °C (-58 to 401 °F)
- **Maks. ciśnienie procesu** 430.9 bar (6250 psi)
- **Materiały w kontakcie z medium** Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

**Zastosowanie:** Przepływomierz masowy Coriolisa Promass A 300 jest przeznaczony do ciągłej kontroli procesu w wymagających zastosowaniach. Samoopróżniający, jednorurowy czujnik przepływu o

unikalnej konstrukcji umożliwia dokładny pomiar najmniejszych strumieni cieczy i gazów w aplikacjach wysokociśnieniowych. Kompaktowy przetwornik Promass A 300 zapewnia dużą elastyczność obsługi i integracji z systemami sterowania. Posiada do trzech wejść i wyjść. Heartbeat Technology gwarantuje niezawodność pomiaru oraz weryfikację zgodną z normami.

## Funkcje i specyfikacja

### Ciecze

#### Zasada pomiaru

Coriolis

#### Product headline

Single-tube flowmeter for accurate measurement of lowest flow rates with a compact, easily accessible transmitter. Suitable for applications with smallest flow quantities in all industries.

#### Sensor features

Space-saving installation – compact, lightweight sensor. Highest product quality – self-drainable measuring tube design in all line sizes. Optimum process safety – resistant to corrosive ambient conditions and internal clogging. Nominal diameter: DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ " ). Process pressure up to 430.9 bar (6250 psi).

#### 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. Backlit display with touch control and WLAN access.

#### Średnica nominalna

DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ " )

#### Materiały w kontakcie z medium

Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

**Ciecze****Wielkości mierzone**

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

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**Maksymalny błąd pomiaru**

Mass flow (liquid):  $\pm 0.1$  %

Volume flow (liquid):  $\pm 0.1$  %

Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

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**Zakres pomiarowy**

0 to 450 kg/h (0 to 16.54 lb/min)

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**Maks. ciśnienie procesu**

430.9 bar (6250 psi)

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**Zakres temperatury medium**

-50 to 205 °C (-58 to 401 °F)

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**Temperatura otoczenia**

-40 to 60 °C (-40 to +140 °F)

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**Materiał obudowy czujnika**

Stainless steel, 1.4404 (316L)

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**Materiał obudowy przetwornika**

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

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**Stopień ochrony**

Compact version: IP66/67, type 4X enclosure.

External WLAN antenna: IP67

IP69

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**Wyświetlacz**

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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## Ciecze

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### Wyjścia

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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### Wejścia

Status input

4-20 mA input

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### Komunikacja cyfrowa

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

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### Zasilacz

DC 24 V

AC 100 to 230 V

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

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### Dopuszczenia do stosowania w strefach zagrożonych wybuchem

ATEX, IECEX, cCSAus, INMETRO, NEPSI

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### Product safety

CE, C-TICK

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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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**Ciecze****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)

**Pressure approvals and certificates**

CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A, cGMP

**Gaz****Zasada pomiaru**

Coriolis

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Single-tube flowmeter for accurate measurement of lowest flow rates with a compact, easily accessible transmitter. Suitable for applications with smallest flow quantities in all industries.

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Space-saving installation – compact, lightweight sensor. Highest product quality – self-drainable measuring tube design in all line sizes. Optimum process safety – resistant to corrosive ambient conditions and internal clogging. Nominal diameter: DN 1 to 4 ( $\frac{1}{2}$ " to  $\frac{1}{8}$ "). Process pressure up to 430.9 bar (6250 psi).

**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. Backlit display with touch control and WLAN access.

## Gaz

**Średnica nominalna**DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ "**Materiały w kontakcie z medium**

Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

**Wielkości mierzone**

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

**Maksymalny błąd pomiaru**Mass flow (liquid):  $\pm 0.1$  %Volume flow (liquid):  $\pm 0.1$  %Mass flow (gas):  $\pm 0.35$  % Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>**Zakres pomiarowy**

0 to 450 kg/h (0 to 16.54 lb/min)

**Maks. ciśnienie procesu**

430.9 bar (6250 psi)

**Zakres temperatury medium**

-50 to 205 °C (-58 to 401 °F)

**Temperatura otoczenia**

-40 to 60 °C (-40 to +140 °F)

**Materiał obudowy czujnika**

Stainless steel, 1.4404 (316L)

**Materiał obudowy przetwornika**

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

**Stopień ochrony**

Compact version: IP66/67, type 4X enclosure.

External WLAN antenna: IP67

IP69

## Gaz

**Wyświetlacz**

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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**Wyjścia**

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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**Wejścia**

Status input

4-20 mA input

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**Komunikacja cyfrowa**

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

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**Zasilacz**

DC 24 V

AC 100 to 230 V

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

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**Dopuszczenia do stosowania w strefach zagrożonych wybuchem**

ATEX, IECEx, cCSAus, INMETRO, NEPSI

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**Product safety**

CE, C-TICK

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## Gaz

**Functional safety**

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

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**Metrological approvals and certificates**

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**Pressure approvals and certificates**

CRN

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**Material certificates**

3.1 material

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**Hygienic approvals and certificates**

3-A, cGMP

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## Density/Concentration

**Zasada pomiaru**

Coriolis

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**Product headline**

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**Sensor features**

Space-saving installation – compact, lightweight sensor. Highest product quality – self-drainable measuring tube design in all line sizes. Optimum process safety – resistant to corrosive ambient conditions and internal clogging. Nominal diameter: DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ "). Process pressure up to 430.9 bar (6250 psi).

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## Density/Concentration

### 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. Backlit display with touch control and WLAN access.

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### Średnica nominalna

DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ " )

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### Materiały w kontakcie z medium

Measuring tube: stainless steel, 1.4435 (316/316L); Alloy C22

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### Wielkości mierzone

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

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### Maksymalny błąd pomiaru

Mass flow (liquid):  $\pm 0.1$  %

Volume flow (liquid):  $\pm 0.1$  %

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### Zakres pomiarowy

0 to 450 kg/h (0 to 16.54 lb/min)

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### Maks. ciśnienie procesu

430.9 bar (6250 psi)

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### Zakres temperatury medium

-50 to 205 °C (-58 to 401 °F)

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### Temperatura otoczenia

-40 to 60 °C (-40 to +140 °F)

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### Materiał obudowy czujnika

Stainless steel, 1.4404 (316L)

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**Density/Concentration****Materiał obudowy przetwornika**

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

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**Stopień ochrony**

Compact version: IP66/67, type 4X enclosure.

External WLAN antenna: IP67

IP69

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**Wyświetlacz**

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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**Wyjścia**

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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**Wejścia**

Status input

4-20 mA input

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**Komunikacja cyfrowa**

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

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## Density/Concentration

**Zasilacz**

DC 24 V

AC 100 to 230 V

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

**Dopuszczenia do stosowania w strefach zagrożonych wybuchem**

ATEX, IECEX, cCSAus, INMETRO, NEPSI

**Product safety**

CE, C-TICK

**Functional safety**

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

**Metrological approvals and certificates**

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**Pressure approvals and certificates**

PED, CRN

**Material certificates**

3.1 material

**Hygienic approvals and certificates**

3-A, cGMP

Więcej informacji [www.pl.endress.com/8A3C](http://www.pl.endress.com/8A3C)