

## Proline Promass A 300 / 8A3B



Meer informatie en actuele prijzen:

[www.be.endress.com/8A3B](http://www.be.endress.com/8A3B)

### Voordelen:

- Hoogste procesveiligheid - ontwerp met zelflozende
- Minder procesmeetpunten – multivariabele meting (flow, dichtheid, temperatuur)
- Ruimtebesparende installatie – geen in-/uitlaatlengten
- Volledige toegang tot proces- en diagnose-informatie – talrijke, vrij te combineren I/O's en veldbussen
- Verminderde complexiteit en verscheidenheid – vrij configureerbare I/O-functionaliteit
- Geïntegreerde verificatie – Heartbeat Technology

### Overzicht specificaties

- **Max. meetfout** Mass flow (liquid):  $\pm 0.1\%$  Volume flow (liquid):  $\pm 0.1\%$  Mass flow (gas):  $\pm 0.5\%$  Density (liquid):  $\pm 0.0005 \text{ g/cm}^3$
- **Measuring range** 0 to 450 kg/h (0 to 16.5 lb/min)
- **Medium temperature range**  $-50$  to  $+205 \text{ }^\circ\text{C}$  ( $-58$  to  $+401 \text{ }^\circ\text{F}$ )
- **Max. process pressure** PN 40, Class 300, 20K, 400 bar (5800 psi)
- **Wetted materials** Measuring tube: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022) Connection: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022); 1.4404 (316/316L)

**Toepassingsgebied:** De zelflozende Promass meet nauwkeurig de laagste flowhoeveelheden van vloeistoffen en gassen, ook onder hoge druk. Het maakt een continue procescontrole mogelijk voor een breed scala van zeer veeleisende toepassingen. Met zijn compacte transmitter biedt de Promass A 300 een hoge flexibiliteit wat betreft bediening en systeemintegratie: toegang vanaf één zijde, weergave op afstand en verbeterde connectiviteitsopties. Heartbeat Technology waarborgt de compatibiliteit en de procesveiligheid.

### Kenmerken en specificaties

## Liquids

### Meetprincipe

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#### Product headline

std\_productprofile\_product\_usp\_7824.

Measuring accurately smallest quantities of liquids and gases for continuous process control.

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#### Sensor features

Highest process safety – self - drainable measuring tube design. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space - saving installation – no in-/outlet run needs. Nominal diameter: DN 1 to 4 ( $\frac{1}{24}$  to  $\frac{1}{8}$ "). Process pressure up to 400 bar (5800 psi). Medium temperature up to +205 °C (+401 °F).

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#### 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. Remote display available.

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#### Nominal diameter range

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

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#### Wetted materials

Measuring tube: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022)

Connection: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022); 1.4404 (316/316L)

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#### Measured variables

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

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## Liquids

**Max. meetfout**Mass flow (liquid):  $\pm 0.10\%$ Volume flow (liquid):  $\pm 0.10\%$ Mass flow (gas):  $\pm 0.50\%$ Density (liquid):  $\pm 0.0005\text{ g/cm}^3$ **Measuring range**

0 to 450 kg/h (0 to 16.5 lb/min)

**Max. process pressure**

PN 40, Class 300, 20K, 400 bar (5800 psi)

**Medium temperature range** $-50$  to  $+205\text{ }^\circ\text{C}$  ( $-58$  to  $+401\text{ }^\circ\text{F}$ )**Ambient temperature range**Standard:  $-40$  to  $+60\text{ }^\circ\text{C}$  ( $-40$  to  $+140\text{ }^\circ\text{F}$ )Option:  $-50$  to  $+60\text{ }^\circ\text{C}$  ( $-58$  to  $+140\text{ }^\circ\text{F}$ )**Sensor housing material**

1.4301 (304), corrosion resistant

**Transmitter housing material**

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

**Degree of protection**

IP66/67, type 4X enclosure

IP69

**Display/Operation**

4-line backlit display with touch control (operation from outside)

Configuration via local display and operating tools possible

Remote display available

## 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

### Inputs

Status input

4-20 mA input

### Digital communication

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

### Power supply

DC 24 V

AC 100 to 230 V

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

### Hazardous area approvals

ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC

### Product safety

CE, C-tick, EAC marking

### Functional safety

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

### Metrological approvals and certificates

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

Heartbeat Technology complies with the requirements for traceable verification according to ISO 9001:2008 – Section 7.6 a (TÜV SÜD attestation)

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## Liquids

### Pressure approvals and certificates

CRN

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### Material certificates

3.1 material

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### Hygienic approvals and certificates

3-A, EHEDG

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## Gas

### Meetprincipe

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### Nominal diameter range

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

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## Gas

**Wetted materials**

Measuring tube: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022)  
Connection: 1.4539 (904L); Alloy C22, 2.4602 (UNS N06022); 1.4404 (316/316L)

**Measured variables**

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

**Max. meetfout**

Mass flow (liquid):  $\pm 0.10$  %  
Volume flow (liquid):  $\pm 0.10$  %  
Mass flow (gas):  $\pm 0.50$  %  
Density (liquid):  $\pm 0.0005$  g/cm<sup>3</sup>

**Measuring range**

0 to 450 kg/h (0 to 16.5 lb/min)

**Max. process pressure**

PN 40, Class 300, 20K, 400 bar (5800 psi)

**Medium temperature range**

-50 to +205 °C (-58 to +401 °F)

**Ambient temperature range**

Standard: -40 to +60 °C (-40 to +140 °F)  
Option: -50 to +60 °C (-58 to +140 °F)

**Sensor housing material**

1.4301 (304), corrosion resistant

**Transmitter housing material**

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

**Degree of protection**

IP66/67, type 4X enclosure  
IP69

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**Gas****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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**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**

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**Product safety**

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**Functional safety**

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CRN

**Material certificates**

3.1 material

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3-A, EHEDG

## Density

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## Density

### Density/Concentration

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#### Meetprincipe

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**Max. process pressure**PN 40, Class 300, 20K, 400 bar (5800 psi)

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**Display/Operation**

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## Density/Concentration

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Density/Concentration

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