

Przepływomierz masowy Proline Promass O 500

Wytrzymały, wysokociśnieniowy przepływomierz w wykonaniu z rozdzielnym przetwornikiem wyposażonym w 4 moduły wejścia / wyjścia



Korzyści:

- Maksymalne bezpieczeństwo – najwyższa odporność na korozję naprężeniową
- Mniej procesowych punktów pomiarowych – jednoczesny pomiar wielu parametrów (przepływu, gęstości, temperatury)
- Oszczędność miejsca – nie są wymagane proste odcinki rurociągu przed i za przepływomierzem
- Pełny dostęp do informacji o procesie oraz diagnostyki - liczne, swobodnie konfigurowalne kombinacje wejść/wyjść oraz protokołów komunikacyjnych
- Uniwersalność i elastyczność – swoboda w konfiguracji i funkcjonalności modułów We/Wy
- Wbudowane funkcje weryfikacji i diagnostyki – Heartbeat Technology

Więcej informacji i aktualne ceny:

www.pl.endress.com/805B

Kluczowe parametry

- **Maksymalny błąd pomiaru** Mass flow (liquid): $\pm 0.10\%$ (standard), 0.05% (option) Volume flow (liquid): $\pm 0.10\%$ Mass flow (gas): $\pm 0.35\%$ Density (liquid): $\pm 0.0005 \text{ g/cm}^3$
- **Zakres pomiarowy** 0 to 800 000 kg/h (0 to 29 400 lb/min)
- **Zakres temperatury medium** -40 to $+205 \text{ }^\circ\text{C}$ (-40 to $+401 \text{ }^\circ\text{F}$)
- **Maks. ciśnienie procesu** PN 250, Class 1500
- **Materiały w kontakcie z medium** Measuring tube: 25Cr duplex (Super Duplex), 1.4410 (UNS S32750) Connection: 25Cr duplex (Super Duplex), 1.4410 (F53)

Zastosowanie: Promass O 500 to wysokociśnieniowy, odporny na korozję przepływomierz masowy dla cieczy i gazów, który spełnia wszystkie wymagania bezpieczeństwa stawiane w przemyśle naftowym i gazowym. Innowacyjny, zdalny przetwornik pomiarowym Promass I 500 oferuje swobodę w zakresie montażu oraz podnosi bezpieczeństwo obsługi w trudnych warunkach otoczenia. Różnorodne możliwości połączenia, 3 konfigurowalne moduły We/Wy, protokoły komunikacyjne, przemysłowy Ethernet oraz WirelessHART umożliwiają łatwą integrację w systemie sterowania. Heartbeat Technology gwarantuje ciągłą oraz weryfikowalną zgodność i bezpieczeństwo procesu produkcji.

Funkcje i specyfikacja

Para	<p>Zasada pomiaru Coriolis</p>
	<p>Product headline Robust high-pressure flowmeter, as remote version with up to 4 I/Os. For premium accuracy at highest process pressures, fully suitable for offshore conditions.</p>
	<p>Sensor features Maximum safety – highest resistance to stress corrosion cracking. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in/outlet run needs. Measuring tube in 25Cr Duplex, 1.4410 (UNS S32750). Process pressure up to PN 250 (Class 1500).</p>
	<p>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. Remote version with up to 4 I/Os. Backlit display with touch control and WLAN access.</p>
	<p>Średnica nominalna DN 80 to 150 (3 to 6")</p>

Para	Materiały w kontakcie z medium Measuring tube: 25Cr duplex (Super Duplex), 1.4410 (UNS S32750) Connection: 25Cr duplex (Super Duplex), 1.4410 (F53)
	Wielkości mierzone Mass flow, density, temperature, volume flow, corrected volume flow (API tables), reference density, concentration
	Maksymalny błąd pomiaru Mass flow (liquid): ± 0.10 % (standard), 0.05 % (option) Volume flow (liquid): ± 0.10 % Mass flow (gas): ± 0.35 % Density (liquid): ± 0.0005 g/cm ³
	Zakres pomiarowy 0 to 800 000 kg/h (0 to 29 400 lb/min)
	Maks. ciśnienie procesu PN 250, Class 1500
	Zakres temperatury medium -40 to +205 °C (-40 to +401 °F)
	Temperatura otoczenia Standard: -40 to +60 °C (-40 to +140 °F) Option: -50 to +60 °C (-58 to +140 °F)
	Materiał obudowy czujnika 1.4404 (316L), highest corrosion resistance Sensor connection housing (standard): AISi10Mg, coated Sensor connection housing (option): 1.4301 (304); 1.4404 (316L); 1.4409 (CF3M) similar to 316L
	Materiał obudowy przetwornika AISi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat

Para**Stopień ochrony**

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP69. Transmitter remote version:
IP66/67, Type 4X enclosure

Wyświetlacz

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

Configuration via local display and operating tools possible

Wyjścia

4 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

Wejścia

Status input

4-20 mA input

Komunikacja cyfrowa

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

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, NEPSI, INMETRO, EAC

Product safety

CE, C-tick, EAC marking

Para	<p>Functional safety Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511</p> <hr/> <p>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) MI-002, PTB</p> <hr/> <p>Marine approvals and certificates LR approval, DNV GL approval, ABS approval, BV approval</p> <hr/> <p>Pressure approvals and certificates PED, CRN, AD 2000</p> <hr/> <p>Material certificates 3.1 material NACE MR0175/MR0103, PMI; welding test acc. to EN ISO, ASME, NORSOK</p> <hr/>
Gaz	<p>Zasada pomiaru Coriolis</p> <hr/> <p>Product headline Robust high-pressure flowmeter, as remote version with up to 4 I/Os. For premium accuracy at highest process pressures, fully suitable for offshore conditions.</p> <hr/>

Gaz

Sensor features

Maximum safety – highest resistance to stress corrosion cracking. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in/outlet run needs. Measuring tube in 25Cr Duplex, 1.4410 (UNS S32750). Process pressure up to PN 250 (Class 1500).

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. Remote version with up to 4 I/Os. Backlit display with touch control and WLAN access.

Średnica nominalna

DN 80 to 150 (3 to 6")

Materiały w kontakcie z medium

Measuring tube: 25Cr duplex (Super Duplex), 1.4410 (UNS S32750)
Connection: 25Cr duplex (Super Duplex), 1.4410 (F53)

Wielkości mierzone

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

Maksymalny błąd pomiaru

Mass flow (liquid): ± 0.10 % (standard), 0.05 % (option)
Volume flow (liquid): ± 0.10 %
Mass flow (gas): ± 0.35 %
Density (liquid): ± 0.0005 g/cm³

Zakres pomiarowy

0 to 800 000 kg/h (0 to 29 400 lb/min)

Maks. ciśnienie procesu

PN 250, Class 1500

Zakres temperatury medium

-40 to +205 °C (-40 to +401 °F)

Gaz

Temperatura otoczenia

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

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

Materiał obudowy czujnika

1.4404 (316L), highest corrosion resistance

Sensor connection housing (standard): AlSi10Mg, coated

Sensor connection housing (option): 1.4301 (304); 1.4404 (316L);
1.4409 (CF3M) similar to 316L

Materiał obudowy przetwornika

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

Stopień ochrony

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP69. Transmitter remote version:
IP66/67, Type 4X enclosure

Wyświetlacz

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

Configuration via local display and operating tools possible

Wyjścia

4 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

Wejścia

Status input

4-20 mA input

Gaz

Komunikacja cyfrowa

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

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, 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 measurement traceability according to ISO 9001:2015 – Section 7.1.5.2 a (TÜV SÜD attestation)

MI-005 Liquids other than water (Hydrocarbons)

MI-002, PTB

Marine approvals and certificates

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

Pressure approvals and certificates

PED, CRN, AD 2000

Material certificates

3.1 material

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

Ciecze

Zasada pomiaru

Coriolis

Product headline

Robust high-pressure flowmeter, as remote version with up to 4 I/Os. For premium accuracy at highest process pressures, fully suitable for offshore conditions.

Sensor features

Maximum safety – highest resistance to stress corrosion cracking. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in/outlet run needs. Measuring tube in 25Cr Duplex, 1.4410 (UNS S32750). Process pressure up to PN 250 (Class 1500).

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. Remote version with up to 4 I/Os. Backlit display with touch control and WLAN access.

Średnica nominalna

DN 80 to 150 (3 to 6")

Materiały w kontakcie z medium

Measuring tube: 25Cr duplex (Super Duplex), 1.4410 (UNS S32750)
Connection: 25Cr duplex (Super Duplex), 1.4410 (F53)

Wielkości mierzone

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

Maksymalny błąd pomiaru

Mass flow (liquid): ± 0.10 % (standard), 0.05 % (option)
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Mass flow (gas): ± 0.35 %
Density (liquid): ± 0.0005 g/cm³

Ciecze**Zakres pomiarowy**0 to 800 000 kg/h (0 to 29 400 lb/min)

Maks. ciśnienie procesuPN 250, Class 1500

Zakres temperatury medium-40 to +205 °C (-40 to +401 °F)

Temperatura otoczenia

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

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

Materiał obudowy czujnika

1.4404 (316L), highest corrosion resistance

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Sensor connection housing (option): 1.4301 (304); 1.4404 (316L);
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Materiał obudowy przetwornikaAlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat

Stopień ochrony

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP69. Transmitter remote version:

IP66/67, Type 4X enclosure

Wyświetlacz

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

Configuration via local display and operating tools possible

Ciecze**Wyjścia**

4 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

Wejścia

Status input

4-20 mA input

Komunikacja cyfrowa

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

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, NEPSI, INMETRO, EAC

Product safety

CE, C-tick, EAC marking

Functional safety

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Ciecze**Metrological approvals and certificates**

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MI-005 Liquids other than water (Hydrocarbons)

MI-002, PTB

Marine approvals and certificates

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

Pressure approvals and certificates

PED, CRN, AD 2000

Material certificates

3.1 material

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

Density/Concentration**Zasada pomiaru**

Coriolis

Product headline

Robust high-pressure flowmeter, as remote version with up to 4 I/Os. For premium accuracy at highest process pressures, fully suitable for offshore conditions.

Sensor features

Maximum safety – highest resistance to stress corrosion cracking. Fewer process measuring points – multivariable measurement (flow, density, temperature). Space-saving installation – no in/outlet run needs. Measuring tube in 25Cr Duplex, 1.4410 (UNS S32750). Process pressure up to PN 250 (Class 1500).

Density/Concentration

Transmitter features

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Mass flow (liquid): ± 0.10 % (standard), 0.05 % (option)
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Density (liquid): ± 0.0005 g/cm³

Zakres pomiarowy

0 to 800 000 kg/h (0 to 29 400 lb/min)

Maks. ciśnienie procesu

PN 250, Class 1500

Zakres temperatury medium

-40 to +205 °C (-40 to +401 °F)

Temperatura otoczenia

Standard: -40 to +60 °C (-40 to +140 °F)
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Density/Concentration**Materiał obudowy czujnika**

1.4404 (316L), highest corrosion resistance

Sensor connection housing (standard): AlSi10Mg, coated

Sensor connection housing (option): 1.4301 (304); 1.4404 (316L);

1.4409 (CF3M) similar to 316L

Materiał obudowy przetwornika

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

Stopień ochrony

Sensor remote version (standard): IP66/67, type 4X enclosure

Sensor remote version (option): IP69. Transmitter remote version:

IP66/67, Type 4X enclosure

Wyświetlacz

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

Configuration via local display and operating tools possible

Wyjścia

4 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

Wejścia

Status input

4-20 mA input

Komunikacja cyfrowa

HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus

RS485, Profinet, Ethernet/IP, OPC-UA

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, NEPSI, INMETRO, EAC

Product safety

CE, C-tick, EAC marking

Functional safety

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Metrological approvals and certificates

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MI-005 Liquids other than water (Hydrocarbons)

MI-002, PTB

Marine approvals and certificates

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

Pressure approvals and certificates

PED, CRN, AD 2000

Material certificates

3.1 material

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

Więcej informacji www.pl.endress.com/805B