Proline Promag H 500 electromagnetic flowmeter

Specialist for hygienic applications, as remote version with up to 4 I/Os

Benefits:

- Multivariable measurement for flow, temperature and conductivity
- Flexible installation concept – numerous hygienic process connections
- Energy-saving flow measurement – no pressure loss due to cross-section constriction
- Maintenance-free – no moving parts
- Full access to process and diagnostic information – numerous, freely combinable I/Os and Ethernet
- Reduced complexity and variety – freely configurable I/O functionality
- Integrated verification – Heartbeat Technology

Specs at a glance

- **Max. measurement error** Volume flow (standard): ±0.5 % o.r. ± 1 mm/s (0.04 in/s) Volume flow (option) ±0.2 % o.r. ± 2 mm/s (0.08 in/s)
- **Measuring range** 0.06 dm³/min to 600 m³/h (0.015 gal/min to 2 650 gal/min)
- **Medium temperature range** –20 to +150 °C (–4 to +302 °F)
- **Max. process pressure** PN 40, Class 150, 20K
- **Wetted materials** Liner: PFA Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum Process Connections: stainless steel, 1.4404 (F316L); PVDF; PVC adhesive sleeve Seals: O-ring seal (EPDM, FKM, Kalrez), aseptic molded seal (EPDM, FKM, silicone) Grounding Rings: stainless steel, 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); tantalum

Field of application: Promag H is the preferred sensor for hygienic applications with highest requirements in the food and beverage and life sciences industries. With its innovative remote transmitter Promag H
500 maximizes installation flexibility and operational safety in demanding environments. Heartbeat Technology ensures compliance and process safety at all times.

**Features and specifications**

**Liquids**

**Measuring principle**
Electromagnetic

**Product headline**
Specialist for hygienic applications, as remote version with up to 4 I/Os. Dedicated to demanding applications in the food and beverage as well as in life sciences industries.

**Sensor features**

**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.

**Nominal diameter range**
DN 2 to 150 (¹⁄₁₂ to 6")
Liquids

**Wetted materials**
Liner: PFA  
Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum  
Process Connections: stainless steel, 1.4404 (F316L); PVDF; PVC adhesive sleeve  
Seals: O-ring seal (EPDM, FKM, Kalrez), aseptic molded seal (EPDM, FKM, silicone)  
Grounding Rings: stainless steel, 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); tantalum

**Measured variables**
Volume flow, temperature, conductivity, mass flow, corrected volume flow, corrected conductivity

**Max. measurement error**
Volume flow (standard): ±0.5 % o.r. ± 1 mm/s (0.04 in/s)  
Volume flow (option) ±0.2 % o.r. ± 2 mm/s (0.08 in/s)

**Measuring range**
0.06 dm³/min to 600 m³/h (0.015 gal/min to 2 650 gal/min)

**Max. process pressure**
PN 40, Class 150, 20K

**Medium temperature range**
-20 to +150 °C (−4 to +302 °F)

**Ambient temperature range**
-40 to +60 °C (−40 to +140 °F)

**Sensor housing material**
1.4301 (304), corrosion resistant  
Sensor connection housing (standard): AlSi10Mg, coated  
Sensor connection housing (option): 1.4301 (304); 1.4409 (CF3M), similar to 316L

**Transmitter housing material**
AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat
Liquids

**Degree of protection**
Sensor remote version (standard): IP66/67, type 4X enclosure
Sensor remote version (option): IP69. Transmitter remote version: IP66/67, Type 4X enclosure

**Display/Operation**
4-line backlit display with touch control (operation from outside)
Configuration via local display and operating tools possible

**Outputs**
4 outputs:
- 4-20 mA HART (active/passive)
- 4-20 mA (active/passive)
- Pulse/frequency/switch output (active/passive)
- Relay output

**Inputs**
Status input
4-20 mA input

**Digital communication**
HART, PROFIBUS DP, PROFIBUS PA, FOUNDATION Fieldbus, Modbus
RS485, PROFINET, PROFINET over Ethernet-APL, 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, INMETRO, NEPSI, EAC, UK Ex

**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
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)

**Marine approvals and certificates**
LR approval, DNV approval, ABS approval, BV approval

**Pressure approvals and certificates**
PED, CRN

**Material certificates**
3.1 material

**Hygienic approvals and certificates**
EHEDG, 3-A, liner and seals acc. to FDA, cGMP

More information [www.endress.com/5H5B](http://www.endress.com/5H5B)