



Promag 10D



Promag 10E



Promag 10H



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The highly cost-effective flowmeter, available as compact wafer. For basic water applications; optimized for limited space and plastic pipe installations.	The economical flowmeter with a highly cost-effective transmitter. Fully suitable for basic applications in the chemical and process industry.	The flowmeter for smallest flow rates with a highly cost-effective transmitter. For demanding hygienic applications.
Sensor features	Easy, fast centering of the sensor – innovative housing construction. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Short installation length and low weight. Integrated ground disks made of stainless steel.	Cost-effective sensor – ideal solution for basic requirements. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common process connections.	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Liner made of PFA. Sensor housing made of stainless steel (3-A, EHEDG).
Transmitter features	Cost-effective – designed for easy applications and direct integration. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/ NAMUR. 2-line display with push buttons. Device in compact or remote version.	Cost-effective – designed for easy applications and direct integration. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/ NAMUR. 2-line display with push buttons. Device as compact or remote version.	Cost-effective – designed for easy applications and direct integration. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/ NAMUR. 2-line display with push buttons. Device in compact or remote version.
Nominal diameter range	□ DN 25 to 100 (1 to 4")	□ DN 15 to 600 (½ to 24")	□ DN 2...150 □ 1/12"...6"
Wetted materials	□ Liner: Polyamide □ Electrodes: 1.4435 (316L)	□ Liner: PTFE □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)	□ Liner: PFA □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum
Measured variables	□ Volume flow	□ Volume flow	□ Volume flow
Max. measured error	□ Volume flow: ±0.5 % o.r. ± 2 mm/s (±0.5 % o.r. ± 0.08 in/s)	□ Volume flow: ±0.5 % o.r. ± 1 mm/s (0.04 in/s)	□ Volume flow: ±0,5% o.r. ± 2 mm/s (±0,5% o.r. ± 0,08 in/s)
Measuring range	□ 9 to 4700 dm ³ /min (2.5 to 1250 gal/min)	□ 4 dm ³ /min to 9600 m ³ /h (1 to 44 000 gal/min)	□ 0.06 dm ³ /min to 600 m ³ /h (0.015 gal/min to 2650 gal/min)
Max. process pressure	□ PN 16, Class 150, 10K	□ PN 40, Class 150, 20K	□ PN 40, Cl. 150, JIS 20 K
Medium temperature range	□ 0 to +60 °C (+32 to +140 °F)	□ -10 to +110 °C (+14 to +230 °F)	□ -20 to +150 °C (-4 to +302 °F)
Ambient temperature range	□ -20 to +60 °C (-4 to +140 °F)	□ -10 to +60 °C (+14 to +140 °F)	□ -40 to +60 °C (-40 to +140 °F)
Sensor housing material	□ AlSi10Mg, coated □ Sensor connection housing: AlSi10Mg, coated	□ DN 15 to 300 (½ to 12"): AlSi10Mg, coated □ DN 350 to 600 (14 to 24"): Carbon steel with protective varnish □ Sensor connection housing: AlSi10Mg, coated	□ 1.4301 (304), corrosion resistant
Transmitter housing material			

	□ Powder-coated die-cast aluminum	□ Powder-coated die-cast aluminum	□ Powder-coated die-cast aluminum
Degree of protection	Compact version: IP66&67, type 4X enclosure □ Sensor remote version: IP66/67, type 4X enclosure □ Transmitter remote version: IP 67, type 4X enclosure	□ Compact version: IP67, type 4X enclosure □ Sensor remote version (standard): IP67, type 4X enclosure □ Sensor remote version (option): IP68, type 6P enclosure □ Transmitter remote version: IP67, type 4X enclosure	□ IP66/67, type 4X enclosure □ Transmitter remote version: IP67, type 4X enclosure
Display/Operation	□ 2-line display with push buttons □ Configuration via local display and operating tools possible	□ 2-line display with push buttons □ Configuration via local display and operating tools possible	□ 2-line display with push buttons □ Configuration via local display and operating tools possible
Outputs	□ 4-20 mA HART (active) □ Pulse/switch output (passive)	□ 4-20 mA HART (active) □ Pulse/switch output (passive)	□ 4-20 mA HART (active) □ Pulse/switch output (passive)
Inputs	□ None	□ None	□ None
Digital communication	□ HART	□ HART	□ HART
Power supply	□ DC 11 to 40 V □ AC 85 to 250 V (45 to 65 Hz) □ AC 20 to 28 V (45 to 65 Hz)	□ DC 11 to 40 V □ AC 85 to 250 V (45 to 65 Hz) □ AC 20 to 28 V (45 to 65 Hz)	□ DC 11 to 40 V □ AC 85 to 250 V (45 to 65 Hz) □ AC 20 to 28 V (45 to 65 Hz)
Hazardous area approvals	□ FM □ CSA	□ cCSAus	□ FM □ CSA
Other approvals and certificates			
Product safety	□ CE, C-tick, EAC marking	□ CE, C-tick, EAC marking	□ CE, C-tick, EAC marking
Functional safety			
Metrological approvals and certificates	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)
Marine approvals and certificates			
Pressure approvals and certificates		□ PED	□ PED
Material certificates			
Hygienic approvals and certificates	□ Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920		□ EHEDG, 3-A, FDA



Promag 10L



Promag 10P



Promag 10W



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The flowmeter with a weight-optimized sensor and high cost-effectiveness. Fully suitable for standard applications in the water and wastewater industry.	The flowmeter for highest medium temperatures with a highly cost-effective transmitter. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.	The sensor with degree of protection IP68 (Type 6P enclosure) combined with a highly cost-effective transmitter. The specialist in the water and wastewater industry for the most demanding applications.
Sensor features	Reduced installation costs – flexible mounting by one-of-a-kind lap-joint flange concept (DN <350/14"). Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Up to 30 % less sensor weight. Nominal diameter: DN 25 to 2400 (1 to 90").	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common process connections.	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).
Transmitter features	Cost-effective – designed for easy applications and direct integration. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/ NAMUR. 2-line display with push buttons. Device as compact or remote version.	Cost-effective – designed for easy applications and direct integration. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/ NAMUR. 2-line display with push buttons. Device as compact or remote version.	Cost-effective – designed for easy applications and direct integration. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/ NAMUR. 2-line display with push buttons. Device as compact or remote version.
Nominal diameter range	□ Lap joint flange; lap joint flange, stamped plate: DN 25 to 300 (1 to 12") □ Fixed flange: DN 350 to 2400 (14 to 90")	□ DN 15 to 600 □ 1/2" to 24"	□ DN 25...2000 □ 1"...78"
Wetted materials	□ Liner: PTFE; Polyurethane; Hard rubber □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)	□ Liner: PTFE □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; □ Titanium; Duplex 1.4462 (UNS S31803)	□ Liner: polyurethane; hard rubber
Measured variables	□ Volume flow	□ Volume flow	□ Volume flow
Max. measured error	□ Volume flow: $\pm 0.5\%$ o.r. ± 2 mm/s ($\pm 0.5\%$ o.r. ± 0.08 in/s)	□ Volume flow: $\pm 0.5\%$ o.r. ± 2 mm/s ($\pm 0.5\%$ o.r. ± 0.08 in/s)	□ $\pm 0.5\%$ o.r. ± 2 mm/s ($\pm 0.5\%$ o.r. ± 0.08 in/s)
Measuring range	9 dm ³ /min to 162 000 m ³ /h (2.5 gal/min to 1030 Mgal/d)	□ 4 dm ³ /min to 9600 m ³ /h (0.5 gal/min to 44000 gal/min)	□ 9 dm ³ /min to 110 000 m ³ /h (2.5 gal/min to 700 Mgal/day)
Max. process pressure	□ PN 16, Class 150	□ PN40 □ Cl. 300 □ JIS 20K □ AS 2129 Table E	□ PN 40, Class 300, 20K
Medium temperature range		□ -40 to +130°C (-40 to +266°F)	

Product Comparison

Flow

Liquids

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	□ Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) □ Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) □ Liner material PTFE: –20 to +90 °C (–4 to +194 °F)		□ 0 to +80 °C (+32 to +176 °F), –20 to +50 °C (–4 to +122 °F)
Ambient temperature range	□ Flange material carbon steel: –10 to +60 °C (+14 to +140 °F) □ Flange material stainless steel: –40 to +60 °C (–40 to +140 °F)	□ –40 to +60 °C (–40 to +140 °F)	□ –40 to +60 °C (–40 to +140 °F)
Sensor housing material	□ DN 25 to 300 (1 to 12"): AISi10Mg, coated □ DN 350 to 2400 (14 to 90"): Carbon steel with protective varnish □ Sensor connection housing: AISi10Mg, coated	□ DN 15 to 300 (½ to 12"): AISi10Mg, coated □ DN 350 to 600 (14 to 24"): Carbon steel with protective varnish	□ DN 25 to 300 (1 to 12"): AISi10Mg, coated □ DN 25 to 2000 (1 to 78"): Carbon steel with protective varnish □ Sensor connection housing (standard): AISi10Mg, coated □ Sensor connection housing (option): Polycarbonate
Transmitter housing material	□ Powder-coated die-cast aluminum	□ Powder-coated die-cast aluminum	□ Powder-coated die-cast aluminum
Degree of protection	□ Compact version: IP66/67, type 4X enclosure □ Sensor remote version (standard): IP66/67, type 4X enclosure □ Sensor remote version (option): IP68, type 6P enclosure □ Transmitter remote version: IP67, type 4X enclosure	□ Standard: IP 67 (Type 4X enclosure) for transmitter and sensor □ Optional: IP 68 (Type 6P enclosure) for remote version of sensor	□ Degree of protection: IP66/67, type 4X enclosure; IP68, type 6P enclosure
Display/Operation	□ 2-line display with push buttons □ Configuration via local display and operating tools possible	□ 2-line display with push buttons □ Configuration via local display and operating tools possible	□ Two line display □ Push buttons
Outputs	□ 4-20 mA HART (active) □ Pulse/switch output (passive)	□ 4-20 mA HART (active) □ Pulse/switch output (passive)	□ 4...20mA + pulse, -/status (configurable)
Inputs	□ None	□ None	
Digital communication	□ HART	□ HART	□ HART
Power supply	□ DC 11 to 40 V □ AC 85 to 250 V (45 to 65 Hz) □ AC 20 to 28 V (45 to 65 Hz)	□ DC 11 to 40 V □ AC 85 to 250 V (45 to 65 Hz) □ AC 20 to 28 V (45 to 65 Hz)	□ AC 20 to 28 V □ AC 85 to 250 V □ AC 20 to 28 V / DC 11 to 40 V
Hazardous area approvals	□ cCSAus	□ FM □ CSA	□ FM □ CSA
Other approvals and certificates			
Product safety	□ CE, C-tick	□ CE, C-tick, EAC marking	□ CE, C-tick, EAC marking
Functional safety			
Metrological approvals and certificates	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)	
Marine approvals and certificates			
Pressure approvals and certificates		□ PED	□ Certificate/Test: PED/VDS
Material certificates			
Hygienic approvals and certificates	□ Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920		□ Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920



Promag 50E



Promag 50H



Promag 50P



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The economical flowmeter with a modular electronic concept. Fully suitable for basic applications in the chemical and process industry.	The flowmeter for smallest flow rates with a modular electronic concept. For demanding hygienic applications.	The flowmeter for highest medium temperatures with a modular electronic concept. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.
Sensor features	Cost-effective sensor – ideal solution for basic requirements. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). Ex approvals for Zone 2.	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. ner made of PFA . Sensor housing made of stainless steel (3-A, EHEDG).	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common Ex approvals.
Transmitter features	Fast commissioning – application-specific Quick Setups. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/NAMUR. 2-line backlit display with push buttons. Device as compact or remote version.	Fast commissioning – application-specific Quick Setups. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/NAMUR. 2-line backlit display with push buttons. Device in compact or remote version.	Fast commissioning – application-specific Quick Setups. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/NAMUR. 2-line backlit display with push buttons. Device as compact or remote version.
Nominal diameter range	□ DN 15 to 600 (½ to 24")	□ DN 2...150 □ 1/12"...6"	□ DN 15...600 □ 1/2"...24"
Wetted materials	□ Liner: PTFE □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum		
Measured variables	□ Volume flow		
Max. measured 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)	□ ±0.5% □ ±0.2% (optional)	□ ±0.5% □ ±0.2% (optional)
Measuring range	□ 4 dm³/min to 9600 m³/h (1 to 44 000 gal/min)	0...600 m3/h	0...9'600 m3/h
Max. process pressure	□ PN 40, Class 150, 20K	PN16...40	□ PN10...40 □ CI 150...300 □ JIS 10...20K □ AS 2129 Table E □ AS 4087 PN16
Medium temperature range	□ -10 to +110 °C (+14 to +230 °F)	-20...+150°C (-4...+302°F)	-40...+180°C (-40...+356°F)
Ambient temperature range	□ -10 to +60 °C (+14 to +140 °F)	-20...+60°C -40...+60°C (optional)	-20...+60°C -40...+60°C (optional)
Sensor housing material			

Product Comparison

Flow

Liquids

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	AlSi10Mg, coated; carbon steel with protective coating		
Transmitter housing material	Powder-coated die-cast aluminum		
Degree of protection	- Compact version: IP67, type 4X enclosure - Sensor remote version (standard): IP67, type 4X enclosure - Sensor remote version (option): IP68, type 6P enclosure - Transmitter remote version: IP67, type 4X enclosure	IP 67 (NEMA 4x)	- IP 67 (NEMA 4x) - IP 68 (Nema 6P)
Display/Operation	2-line backlit display with push buttons Configuration via local display and operating tools possible	- Two line display with backlit - Push button	- Two line display with backlit - Push button
Outputs	3 outputs: 0-20 mA (active)/4-20 mA (active/passive) - Pulse/frequency output (passive) - Switch output (passive)	4...20 mA - Pulse/Frequency - Status	4...20 mA - Pulse/Frequency - Status
Inputs	Status input	Status	Status
Digital communication	- HART - PROFIBUS PA/DP	- HART - PROFIBUS PA	- HART - PROFIBUS PA
Power supply	- DC 16 to 62 V - AC 85 to 260 V (45 to 65 Hz) - AC 20 to 55 V (45 to 65 Hz)		
Hazardous area approvals	ATEX, cCSAus	- ATEX - FM - CSA - TIIS	ATEX, IECEx, NEPSI, TIIS, FM, CSA
Other approvals and certificates			
Product safety	CE, C-tick, EAC marking	CE, C-tick, EAC marking	CE, C-tick, EAC marking
Functional safety			
Metrological approvals and certificates	Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)		
Marine approvals and certificates			
Pressure approvals and certificates	PED		PED, CRN
Material certificates			
Hygienic approvals and certificates		3-A, EHEDG	



Promag 50W



Promag 51P



Promag 51W



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The sensor with degree of protection IP68 (Type 6P enclosure) and a modular electronic concept. The specialist in the water and wastewater industry for the most demanding applications.	The flowmeter for highest medium temperatures with a transmitter for custody transfer. Dedicated for chemical and process applications with corrosive liquids and high medium temperatures.	The sensor with degree of protection IP68 (Type 6P enclosure) combined with a transmitter for custody transfer. The specialist in the water and wastewater industry for the most demanding applications.
Sensor features	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common Ex approvals.	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).
Transmitter features	Fast commissioning – application-specific Quick Setups. Safe operation – display provides easily readable process information. Fully industry compliant – IEC/EN/NAMUR. 2-line backlit display with push buttons. Device as compact or remote version.	Quality – designed for custody transfer; featuring worldwide recognized metrological approvals. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/NAMUR. Transmitter certified to MI-001. Device in compact or remote version.	Quality – designed for custody transfer; featuring worldwide recognized metrological approvals. Safe operation – display provides easy readable process information. Fully industry compliant – IEC/EN/NAMUR. Transmitter certified to MI-001. Device in compact or remote version.
Nominal diameter range	- DN 25...2000 1"...78"	- DN 15...600 1/2"...24"	- DN 25...2000 1"...78"
Wetted materials			
Measured variables			
Max. measured error	±0.5% ±0.2% (optional)	±0.5% ±0.2% (optional)	±0.5% ±0.2% (optional)
Measuring range	0...110'000 m ³ /h	0...9'600 m ³ /h	0...110'000 m ³ /h
Max. process pressure	- PN6...40 - Cl 150...300 - JIS 10...20K - AWWA Class D - AS 2129 Table E - AS 4087 PN16	PN10...40	PN6...40
Medium temperature range	-20...+80°C (-4...+176°F)	-40...+150°C (-40...+302°F)	-20...+80°C (-4...+176°F)
Ambient temperature range	-20...+60°C -40...+60°C (optional)	-20...+60°C -40...+60°C (optional)	-20...+60°C -40...+60°C (optional)
Sensor housing material			
Transmitter housing material			
Degree of protection	IP 67 (NEMA 4x)	IP 67 (NEMA 4x)	IP 67 (NEMA 4x)

Product Comparison

Flow

Liquids

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	□ IP 68 (Nema 6P)	□ IP 68 (Nema 6P)	□ IP 68 (Nema 6P)
Display/Operation	□ Two line display with backlit □ Push button	□ Two line display with backlit □ Push button	□ Two line display with backlit □ Push button
Outputs	□ 4...20 mA □ Pulse/Frequency □ Status	□ 4...20 mA □ Pulse/Frequency □ Status	□ 4...20 mA □ Pulse/Frequency □ Status
Inputs	Status	Status	Status
Digital communication	□ HART □ PROFIBUS PA/DP	HART	HART
Power supply			
Hazardous area approvals	□ ATEX, IECEx, NEPSI, FM, CSA	□ ATEX	□ ATEX
Other approvals and certificates			
Product safety	□ CE, C-tick, EAC marking	□ CE, C-tick, EAC marking	□ CE, C-tick, EAC marking
Functional safety			
Metrological approvals and certificates		□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025) □ Custody transfer approvals: MI-001, PTB	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), □ Custody transfer approvals: MI-001, PTB
Marine approvals and certificates			
Pressure approvals and certificates	□ PED, CRN		□ PED
Material certificates			
Hygienic approvals and certificates	Drinking water approvals: ACS, NSF 61, KTW/W270, WRAS BS6920		



Promag 53E



Promag 53H



Promag 53P



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The economical flowmeter with flexible system integration. Fully suitable for basic applications in the chemical and process industry.	The flowmeter for smallest flow rates with flexible system integration. For demanding hygienic applications.	The flowmeter for highest medium temperatures with flexible system integration. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.
Sensor features	Cost-effective sensor – ideal solution for basic requirements. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). Ex approvals for Zone 2.	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Liner made of PFA. Sensor housing made of stainless steel (3-A, EHEDG).	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common Ex-approvals.
Transmitter features	Quality – software for filling & dosing, density, electrode cleaning and also advanced diagnostics. Easy calculation – bidirectional totalizers. Automatic recovery of data for servicing. 4-line backlit display with touch control. Device as compact or remote version.	Quality – software for filling & dosing, density, electrode cleaning and also advanced diagnostics. Easy calculation – bidirectional totalizers. Automatic recovery of data for servicing. 4-line backlit display with touch control. Device in compact or remote version.	Quality – software for filling & dosing, density, electrode cleaning and also advanced diagnostics. Easy calculation – bidirectional totalizers. Automatic recovery of data for servicing. 4-line backlit display with touch control. Device as compact or remote version.
Nominal diameter range	□ DN 15 to 600 (½ to 24")	□ DN 2...150 □ 1/12"...6"	□ DN 15...600 □ 1/2"...24"
Wetted materials	□ Liner: PTFE □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum		
Measured variables	□ Volume flow		
Max. measured error	□ Volume flow: ±0.2 % o.r. ± 2 mm/s (0.08 in/s)	±0.2%	±0.2%
Measuring range	□ 4 dm³/min to 9600 m³/h (1 to 44 000 gal/min)	0...600 m³/h	0...9'600 m³/h
Max. process pressure	□ PN 40, Class 150, 20K	PN16...40	□ PN10...40 □ Cl 150...300 □ JIS 10...20K □ AS 2129 Table E □ AS 4087 PN16
Medium temperature range	□ -10 to +110 °C (+14 to +230 °F)	-20...+150°C (-4...+302°F)	-40...+180°C (-40...+356°F)
Ambient temperature range	□ -10 to +60 °C (+14 to +140 °F)	-20...+60°C -40...+60°C (optional)	-20...+60°C -40...+60°C (optional)
Sensor housing material	□ DN 15 to 300 (½ to 12"): AISi10Mg, coated		

	- DN 350 to 600 (14 to 24"): Carbon steel with protective varnish - Sensor connection housing: AlSi10Mg, coated		
Transmitter housing material	Powder-coated die-cast aluminum		
Degree of protection	- Compact version: IP67, type 4X enclosure - Sensor remote version (standard): IP67, type 4X enclosure - Sensor remote version (option): IP68, type 6P enclosure - Transmitter remote version: IP67, type 4X enclosure	IP 67 (NEMA 4x)	- IP 67 (NEMA 4x) - IP 68 (Nema 6P)
Display/Operation	4-line backlit display with touch control (operation from outside) - Configuration via local display and operating tools possible	- Four line display with backlit - Touch control	- Four line display with backlit - Touch control
Outputs	4 modular outputs: 0-20 mA (active)/4-20 mA (active/passive) - Pulse/frequency (passive) - Relay output - Switch output (passive)	4...20 mA - Pulse / frequency(active/passive) - Relais - Status	4...20 mA - Pulse / frequenz (aktive/passive) - Relays - Status
Inputs	2 modular inputs: Status input 0-20 mA (aktiv)/4-20 mA (aktiv/passiv)	- Status - Current input	- Status - Current input
Digital communication	HART, PROFIBUS PA/DP, FOUNDATION Fieldbus, MODBUS RS485, EtherNet/IP	- HART - PROFIBUS PA - Profibus DP - FOUNDATION Fieldbus	- HART - PROFIBUS PA - Profibus DP - FOUNDATION Fieldbus
Power supply	- DC 16 to 62 V - AC 85 to 260 V (45 to 65 Hz) - AC 20 to 55 V (45 to 65 Hz)		
Hazardous area approvals	ATEX, cCSAus	- ATEX - FM - CSA - TIIS	- ATEX - FM - CSA - TIIS
Other approvals and certificates			
Product safety	CE, C-tick, EAC marking	CE, C-tick, EAC marking	CE, C-tick, EAC marking
Functional safety			
Metrological approvals and certificates	3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)		
Marine approvals and certificates			
Pressure approvals and certificates	PED		
Material certificates	3.1 material		
Hygienic approvals and certificates		3-A, EHEDG	



Promag 53W



Promag 55H



Promag 55S



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The sensor with degree of protection IP68 (Type 6P encl.) combined with a transmitter with flexible system integration. The specialist in the water and wastewater industry for the most demanding applications.	The flowmeter for smallest flow rates with integrated solids content diagnostics. For demanding hygienic applications.	The flowmeter with outstanding abrasion resistance and integrated solids content diagnostics. Superb signal stability due to unique signal processing. Ideal for the most demanding applications with high solids content and high abrasion.
Sensor features	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Liner made of PFA. Sensor housing made of stainless steel (3-A, EHEDG).	Maximum safety – industry-optimized measuring electrodes and linings. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Intensified coil system. Large range of liners.
Transmitter features	Quality – software for filling & dosing, density, electrode cleaning and also advanced diagnostics. Easy calculation – bidirectional totalizers. Automatic recovery of data for servicing. 4-line backlit display with touch control. Device as compact or remote version.	Highest performance – with integrated solids measurement for demanding fluids. Highest safety – integrated electrode cleaning. Automatic recovery of data for servicing. 4-line backlit display with touch control. Two switch outputs.	Highest performance – with integrated solids measurement for demanding fluids. Highest safety – integrated electrode cleaning. Automatic recovery of data for servicing. 4-line backlit display with touch control. Two switch outputs.
Nominal diameter range	- DN 25...2000 1"...78"	- DN 2...150 1/12"...6"	- DN 15...600 1/2"...24"
Wetted materials			- Liner: polyurethane, hard rubber, PFA, PTFE, Natur rubber - Electrodes: 1.4435/304L, Alloy C-22, Tantalum, Platinum, Duplex 1.4465, Tungsten carbide, Titanium
Measured variables			Volume flow, electrical conductivity, mass flow
Max. measured error	±0.2%	±0.25%	- Volume flow: ±0.5 % o.r. ± 1 mm/s (0.04 in/s) - Option: ±0.2 % o.r. ± 2 mm/s (0.08 in/s)
Measuring range	0...110'000 m3/h	0...600 m3/h	0.06 dm3/min to 600 m3/h (0.015 gal/min to 2650 gal/min)
Max. process pressure	- PN6...40 - Cl 150...300 - JIS 10...20K - AWWA Class D	PN16...40	PN 40, Cl. 300, JIS 20 K

	- AS 2129 Table E - AS 4087 PN16		
Medium temperature range	-20...+80°C (-4...+176°F)	-20...+150°C (-4...+302°F)	0 to +60 °C (+32 to +140 °F), 0 to +80 °C (+32 to +176 °F), -20 to +50 °C (-4 to +122 °F), -20 to +180 °C (-4 to +356 °F), -20 to +150 °C (-4 to +266 °F)
Ambient temperature range	-20...+60°C -40...+60°C (optional)		-40 to +60 °C (-40 to +140 °F)
Sensor housing material			Aluminum coated AlSi10Mg, carbon steel with protective varnish
Transmitter housing material			Powder-coated die-cast aluminum
Degree of protection	- IP 67 (NEMA 4x) - IP 68 (Nema 6P)	IP 67 (NEMA 4x)	- Standard: IP 67 (Type 4X enclosure) for transmitter and sensor - Optional: IP 68 (Type 6P enclosure) for remote version of Promag S sensor
Display/Operation	- Four line display with backlit - Touch control	- Four line display with backlit - Touch control	- Liquid-crystal display: illuminated, four lines with 16 characters per line - Onsite operation with three optical sensor keys
Outputs	4...20 mA - Pulse/Frequency (active/passive) - Relays - Status	4...20 mA - Pulse / frequency(active/passive) - Relais - Status	4...20mA (active/passive) - Pulse-/ Frequency output (active/passive) - Two status outputs
Inputs	- Status - Current input	- Status - Current input	- Status - Current input
Digital communication	- HART - PROFIBUS PA - Profibus DP - FOUNDATION Fieldbus	- HART - PROFIBUS PA - FOUNDATION Fieldbus	HART, PROFIBUS DP/PA, FOUNDATION Fieldbus
Power supply			- AC 20 to 260 V - DC 20 to 64 V
Hazardous area approvals	- ATEX - FM - CSA	- ATEX - FM - CSA	- ATEX - FM - CSA
Other approvals and certificates			
Product safety	CE, C-tick, EAC marking	CE, C-tick, EAC marking	CE, C-tick, EAC marking
Functional safety			
Metrological approvals and certificates			
Marine approvals and certificates			
Pressure approvals and certificates			CRN, PED
Material certificates			3.1 material
Hygienic approvals and certificates		3-A, EHEDG	Drinking water approval:ACS, KTW/W270, NSF 61, WRAS BS 6920



Proline Promag D 400 / 5D4C



Proline Promag E 100 / 5E1B



Proline Promag H 100 / 5H1B



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	Flowmeter designed as compact wafer version with a state-of-the-art transmitter for Water & Wastewater. For basic water applications; optimized for limited space and plastic pipe installations.	The economical flowmeter with an ultra-compact transmitter. Fully suitable for basic applications in the chemical and process industry.	The specialist for hygienic applications with an ultra-compact transmitter. Multivariable measurement for flow, temperature and conductivity. Dedicated to demanding applications in the food and beverage as well as in life sciences industries.
Sensor features	Easy, fast centering of the sensor – innovative housing construction. Energy-saving flow measurement – no pressure loss due to crosssection constriction. Maintenance-free – no moving parts. Short installation length and low weight. Integrated ground disks made of stainless steel.	Cost-effective sensor – ideal solution for basic requirements. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). Ex approvals for Zone 2.	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Integrated temperature measurement. Sensor housing made of stainless steel (3-A, EHEDG).
Transmitter features	Safe operation – no need to open the device due to display with touch control, background lighting. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Transmitter housing made of durable polycarbonate or aluminium. WLAN access.	Space-saving transmitter – full functionality on the smallest footprint. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Robust, ultra-compact transmitter housing.	Space-saving transmitter – full functionality on the smallest footprint. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Robust, ultra-compact transmitter housing. High ingress protection: IP69.
Nominal diameter range	- DN 25...100 1"...4"	DN 15 to 600 (½ to 24")	DN 2 to 150 (½ to 6")
Wetted materials	- Liner: Polyamide - Electrodes: 1.4435 (316L)	- Liner: PTFE - Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum	- Liner: PFA - Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum
Measured variables	Volume flow, mass flow	Volume flow, conductivity, mass flow	Volume flow, temperature, conductivity, mass flow, corrected volume flow, corrected conductivity
Max. measured error	Volume flow: ±0.5 % o.r. ± 1 mm/s (0.04 in/s)	- 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)	- 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	9 to 4700 dm³/min (2.5 to 1250 gal/min)	4 dm³/min to 9600 m³/h (1 to 44 000 gal/min)	0.06 dm³/min to 600 m³/h (0.015 to 2650 gal/min)
Max. process pressure	PN 16, Class 150, 10K	PN 40, Class 150, 20K	PN 40, Class 150, 20K

Medium temperature range	0 to +60 °C (+32 to +140 °F)	-10 to +110 °C (+14 to +230 °F)	-20 to +150 °C (-4 to +302 °F)
Ambient temperature range	-20 to +60 °C (-4 to +140 °F)	-10 to +60 °C (+14 to +140 °F)	-40 to +60 °C (-40 to +140 °F)
Sensor housing material	- AlSi10Mg, coated - Sensor connection housing: AlSi10Mg, coated	- DN 15 to 300 (½ to 12"): AlSi10Mg, coated - DN 350 to 600 (14 to 24"): Carbon steel with protective varnish	1.4301 (304), corrosion resistant
Transmitter housing material	Polycarbonat; AlSi10Mg, coated	AlSi10Mg, coated	- Compact: AlSi10Mg, coated - Compact/ultra-compact: 1.4301 (304)
Degree of protection	- Compact version: IP66/67, type 4X enclosure - Sensor remote version: IP66/67, type 4X enclosure - Transmitter remote version: IP66/67, Type 4X enclosure	IP67, type 4X enclosure	- Standard: IP66/67, type 4X enclosure - Option: IP69
Display/Operation	4-line backlit display with touch control (operation from outside) - Configuration via local display, web browser and operating tools possible	4-line backlit display available (no local operation) - Configuration via web browser and operating tools possible	4-line backlit display available (no local operation) - Configuration via web browser and operating tools possible
Outputs	3 outputs: 0-20 mA/4-20 mA HART (active) - Pulse/frequency/switch output (passive) - Pulse/frequency output (passive) - Switch output (passive)	4-20 mA HART (active) - Pulse/frequency/switch output (passive)	4-20 mA HART (active) - Pulse/frequency/switch output (passive)
Inputs	Status input	None	None
Digital communication	HART, PROFIBUS DP, EtherNet/IP, Modbus RS485	HART, PROFIBUS DP, Modbus RS485, EtherNet/IP, PROFINET	HART, PROFIBUS DP, Modbus RS485, EtherNet/IP, PROFINET
Power supply	AC 100 to 240 V / AC/DC 24 V	DC 20 to 30 V	DC 20 to 30 V
Hazardous area approvals	cCSAus	ATEX, IECEx, cCSAus, INMETRO, EAC	ATEX, IECEx, cCSAus, INMETRO, EAC
Other approvals and certificates			
Product safety	CE, C-tick, EAC marking	CE, C-Tick	CE, C-tick
Functional safety			
Metrological approvals and certificates	Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR	- 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 attestation)	- Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025) - Heartbeat Verification: Heartbeat Technology complies with requirements for traceable verification according to ISO 9001:2008, chapter 7.6. a (TUV attestation)
Marine approvals and certificates			
Pressure approvals and certificates	CRN	PED	PED, CRN
Material certificates		3.1 material	3.1 material
Hygienic approvals and certificates	ACS, KTW/W270, NSF 61, WRAS BS 6920		3-A, EHEDG, liner and seals acc. to FDA



Proline Promag H 200 / 5H2B



Proline Promag H 300 / 5H3B



Proline Promag H 500 / 5H5B



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The flowmeter for smallest flow rates with genuine loop-powered technology. For demanding hygienic applications.	The specialist for hygienic applications with a compact, easily accessible transmitter. Dedicated to demanding applications in the food and beverage as well as in life sciences industries.	The specialist for hygienic applications, as remote version with up to 4 I/Os. Multivariable measurement for flow, temperature and conductivity. Dedicated to demanding applications in the food and beverage as well as in life sciences industries.
Sensor features	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to crosssection constriction. Maintenance-free – no moving parts. Liner made of PFA. Sensor housing made of stainless steel (3-A, EHEDG).	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Liner made of PFA. Sensor housing made of stainless steel (3-A, EHEDG).	Flexible installation concept – numerous hygienic process connections. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Liner made of PFA. Sensor housing made of stainless steel (3-A, EHEDG).
Transmitter features	Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Loop-powered technology. Robust dual-compartment housing.	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 hygienic dual-compartment housing with IP69 and up to 3 I/Os. Backlit display with touch control and WLAN access.	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; hygienic sensor connection housing with IP69. Backlit display with touch control and WLAN access.
Nominal diameter range	□ DN 2 to 25 (1/16 to 1")	□ DN 2 to 150 (1/16 to 6")	□ DN 2 to 150 (1/16 to 6")
Wetted materials	□ Liner: PFA □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum	□ Liner: PFA □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum	□ Liner: PFA □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum
Measured variables	□ Volume flow, mass flow	□ Volume flow, temperature, conductivity, mass flow, corrected volume flow, corrected conductivity	□ Volume flow, temperature, conductivity, mass flow, corrected volume flow, corrected conductivity
Max. measured error	□ Volume flow: ±0.5 % o.r. ± 2 mm/s (0.08 in/s)	□ 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)	□ 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 300 m³/h (0.015 to 80 gal/min)	□ 0.06 dm³/min to 600 m³/h (0.015 gal/min to 2 650 gal/min)	□ 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	□ PN 40, Class 150, 20K	□ PN 40, Class 150, 20K
Medium temperature range	□ -20 to +150 °C (-4 to +302 °F)	□ -20 to +150 °C (-4 to +302 °F)	□ -20 to +150 °C (-4 to +302 °F)

Ambient temperature range	■ -40 to +60 °C (-40 to +140 °F)	■ -40 to +60 °C (-40 to +140 °F)	■ -40 to +60 °C (-40 to +140 °F)
Sensor housing material	■ 1.4301 (304), corrosion resistant	■ 1.4301 (304), corrosion resistant	■ 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	■ AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; stainless steel for hygienic transmitter design	■ AlSi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat
Degree of protection	■ IP66/67, type 4X enclosure	■ IP66/67, type 4X enclosure ■ IP69	■ 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 ■ Remote display available	■ 4-line backlit display with touch control (operation from outside) ■ Configuration via local display and operating tools possible ■ Remote display available	■ 4-line backlit display with touch control (operation from outside) ■ Configuration via local display and operating tools possible
Outputs	■ 4-20 mA HART (passive) ■ Pulse/frequency/switch output (passive)	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	4 outputs: ■ 4-20 mA HART (active/passive) ■ 4-20 mA (active/passive) ■ Pulse/frequency/switch output (active/passive) ■ Relay output
Inputs	■ None	■ Status input ■ 4-20 mA input	■ Status input ■ 4-20 mA input
Digital communication	■ HART, PROFIBUS PA, FOUNDATION Fieldbus	■ HART, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA	■ HART, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA
Power supply	■ DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch output)	■ DC 24 V ■ AC 100 to 230 V ■ AC 100 to 230 V / DC 24 V (non-hazardous area)	■ 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, TIIS	■ ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC	■ ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC
Other approvals and certificates			
Product safety	■ CE, C-Tick	■ CE, C-tick, EAC marking	■ CE, C-tick, EAC marking
Functional safety	■ Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511	■ Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511	■ 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	■ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025) ■ Heartbeat Technology complies with the requirements for traceable verification according	■ 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 attestation)	to ISO 9001:2008 – Section 7.6 a (TÜV-attestation)	to ISO 9001:2008 – Section 7.6 a (TÜV-attestation)
Marine approvals and certificates			
Pressure approvals and certificates	□ CRN	□ PED, CRN	□ PED, CRN
Material certificates	□ 3.1 material	□ 3.1 material	□ 3.1 material
Hygienic approvals and certificates	□ 3-A, EHEDG	□ Sanitary approval: EHEDG, 3-A, liner and seals acc. to FDA	□ EHEDG, 3-A, liner and seals acc. to FDA



Proline Promag L 400 / 5L4C



Proline Promag P 100 / 5P1B



Proline Promag P 200 / 5P2B



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	Weight-optimized sensor with a state-of-the-art transmitter for Water & Wastewater. Fully suitable for standard applications in the water and wastewater industry.	The flowmeter for highest medium temperatures with an ultracompact transmitter. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.	The flowmeter for highest medium temperatures with genuine loop-powered technology. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.
Sensor features	Reduced installation costs – flexible mounting by one-of-a-kind lap-joint flange concept (DN < 350/14"). Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Up to 30 % less sensor weight. Nominal diameter: DN 25 to 2400 (1 to 90").	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common Ex approvals.	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 200 (8"). All common Ex approvals.
Transmitter features	Safe operation – no need to open the device due to display with touch control, background lighting. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Transmitter housing made of durable polycarbonate or aluminium. WLAN access.	Space-saving transmitter – full functionality on the smallest footprint. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Robust, ultra-compact transmitter housing.	Convenient device wiring – separate connection compartment. Safe operation – no need to open the device due to display with touch control, background lighting. Integrated verification – Heartbeat Technology. Loop-powered technology. Robust dual-compartment housing.
Nominal diameter range	□ Lap joint flange, lap joint flange, stamped plate: DN 25 to 300 (1 to 12") □ Fixed flange: DN 350 to 2400 (14 to 90")	□ DN 15 to 600 (½ to 24")	□ DN 15 to 200 (½ to 8")
Wetted materials	□ Liner: PTFE; Polyurethane; Hard rubber □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)	□ Liner: PFA, PTFE □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; Titanium □ Duplex 1.4462 (UNS S31803)	□ Liner: PFA; PTFE □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum
Measured variables	□ Volume flow, conductivity, mass flow	□ Volume flow, conductivity, mass flow, corrected volume flow, corrected conductivity	□ Volume flow, mass flow
Max. measured 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)	□ 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)	□ Volume flow: ±0.5 % o.r. ± 2 mm/s (0.08 in/s)
Measuring range	□ 9 dm³/min to 162 000 m³/h (2.5 gal/min to 1030 Mgal/d)	□ 4 dm³/min to 9600 m³/h (1 to 44 000 gal/min)	□ 4 dm³/min to 1100 m³/h (1 to 4850 gal/min)

Max. process pressure	PN 16, Class 150	PN 40, Class 300, 20K	PN 40, Class 300, 20K
Medium temperature range	- Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) - Liner material polyurethane: –20 to +50 °C (–4 to +122 °F) - Liner material PTFE: –20 to +90 °C (–4 to +194 °F)	- Liner material PFA: –20 to +150 °C (–4 to +302 °F) - Liner material PFA high-temperature: –20 to +180 °C (–4 to +356 °F) - Liner material PTFE: –40 to +130 °C (–40 to +266 °F)	- Liner material PFA: –20 to +150 °C (–4 to +302 °F) - Liner material PTFE: –40 to +130 °C (–40 to +266 °F)
Ambient temperature range	- Flange material carbon steel: –10 to +60 °C (+14 to +140 °F) - Flange material stainless steel: –40 to +60 °C (–40 to +140 °F)	- Flange material carbon steel: –10 to +60 °C (+14 to +140 °F) - Flange material stainless steel: –40 to +60 °C (–40 to +140 °F)	- Flange material carbon steel: –10 to +60 °C (+14 to +140 °F) - Flange material stainless steel: –40 to +60 °C (–40 to +140 °F)
Sensor housing material	- DN 25 to 300 (1 to 12"): AISi10Mg, coated - DN 350 to 2400 (14 to 90"): Carbon steel with protective varnish - Sensor connection housing: AISi10Mg, coated	- DN 15 to 300 (½ to 12"): AISi10Mg, coated - DN 350 to 600 (14 to 24"): Carbon steel with protective varnish	AISi10Mg, coated
Transmitter housing material	Polycarbonat; AISi10Mg, coated	AISi10Mg, coated	AISi10Mg, coated
Degree of protection	- Compact version: IP66/67, type 4X enclosure - Sensor remote version (standard): IP66/67, type 4X enclosure - Sensor remote version (option): IP68, type 6P enclosure - Transmitter remote version: IP66/67, Type 4X enclosure	IP66/67, type 4X enclosure	IP66/67, type 4X enclosure
Display/Operation	4-line backlit display with touch control (operation from outside) - Configuration via local display, web browser and operating tools possible	4-line backlit display available (no local operation) - Configuration via web browser and operating tools possible	4-line backlit display with touch control (operation from outside) - Configuration via local display and operating tools possible - Remote display available
Outputs	3 outputs: 0-20 mA/4-20 mA HART (active) - Pulse/frequency/switch output (passive) - Pulse/frequency output (passive) - Switch output (passive)	4-20 mA HART (active) - Pulse/frequency/switch output (passive)	4-20 mA HART (passive) - Pulse/frequency/switch output (passive)
Inputs	Status input	None	None
Digital communication	HART, PROFIBUS DP, EtherNet/IP, Modbus RS485	HART, PROFIBUS DP, Modbus RS485, EtherNet/IP, PROFINET	HART, PROFIBUS PA, FOUNDATION Fieldbus
Power supply	AC 100 to 240 V / AC/DC 24 V	DC 20 to 30 V	DC 18 to 35 V (4-20 mA HART with/without pulse/frequency/switch output)
Hazardous area approvals	cCSAus	ATEX, IECEx, cCSAus, INMETRO	ATEX, IECEx, cCSAus, NEPSI, INMETRO, EAC, TIIS
Other approvals and certificates			
Product safety		CE, C-Tick	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	Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR	- 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 attestation)	- 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 attestation)
Marine approvals and certificates		ABS, BV, LR	
Pressure approvals and certificates		PED, CRN	CRN, PED
Material certificates		3.1 material	3.1 material
Hygienic approvals and certificates	Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920	Drinking water approval: ACS, NSF 61	



Proline Promag P 300 / 5P3B



Proline Promag P 500 / 5P5B



Proline Promag W 400 / 5W4C



Measuring principle	Electromagnetic	Electromagnetic	Electromagnetic
Product headline	The flowmeter for highest medium temperatures with a compact, easily accessible transmitter. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.	The flowmeter for highest medium temperatures, as remote version with up to 4 I/Os. Dedicated to chemical and process applications with corrosive liquids and high medium temperatures.	Sensor with certified corrosion protection (EN ISO 12944) and a state-of-the-art transmitter for Water & Wastewater. For direct underground installation or permanent underwater use. The specialist in the water and wastewater industry for the most demanding applications.
Sensor features	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common Ex approvals.	Versatile applications – wide variety of wetted materials. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. Nominal diameter: max. DN 600 (24"). All common Ex approvals.	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).
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.	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.	Safe operation – no need to open the device due to display with touch control, background lighting. Time-saving local operation without additional software and hardware – integrated web server. Integrated verification – Heartbeat Technology. Transmitter housing made of durable polycarbonate or aluminium. WLAN access.
Nominal diameter range	■ DN 15 to 600 (½ to 24")	■ DN 15 to 600 (½ to 24")	■ DN 25 to 2000 (1 to 78")
Wetted materials	■ Liner: PFA; PTFE ■ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; Titanium; Duplex 1.4462 (UNS S31803)	■ Liner: PFA; PTFE ■ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum; Platinum; Titanium; Duplex 1.4462 (UNS S31803)	■ Liner: Polyurethane; Hard rubber ■ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum
Measured variables	■ Volume flow, conductivity, mass flow	■ Volume flow, conductivity, mass flow	■ Volume flow, conductivity, mass flow
Max. measured 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)	■ 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)	■ 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), Flat Spec
Measuring range	■ 4 dm³/min to 9600 m³/h (1 gal/min to 44 000 gal/min)	■ 4 dm³/min to 9600 m³/h (1 gal/min to 44 000 gal/min)	■ 9 dm³/min to 110 000 m³/h (2.5 gal/min to 700 Mgal/d)
Max. process pressure	■ PN 40, Class 300, 20K	■ PN 40, Class 300, 20K	■ PN 40, Class 300, 20K

Medium temperature range	□ Liner material PFA: -20 to +150 °C (-4 to +302 °F) □ Liner material PFA high-temperature: -20 to +180 °C (-4 to +356 °F) □ Liner material PTFE: -40 to +130 °C (-40 to +266 °F)	□ Liner material PFA: -20 to +150 °C (-4 to +302 °F) □ Liner material PFA high-temperature: -20 to +180 °C (-4 to +356 °F) □ Liner material PTFE: -40 to +130 °C (-40 to +266 °F)	□ Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) □ Liner material polyurethane: -20 to +50 °C (-4 to +122 °F)
Ambient temperature range	□ Flange material carbon steel: -10 to +60 °C (+14 to +140 °F) □ Flange material stainless steel: -40 to +60 °C (-40 to +140 °F)	□ Flange material carbon steel: -10 to +60 °C (+14 to +140 °F) □ Flange material stainless steel: -40 to +60 °C (-40 to +140 °F)	□ Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) □ Liner material polyurethane: -20 to +50 °C (-4 to +122 °F)
Sensor housing material	□ DN 15 to 300 (½ to 12"): AISi10Mg, coated □ DN 350 to 600 (14 to 24"): Carbon steel with protective varnish	□ DN 15 to 300 (½ to 12"): AISi10Mg, coated □ DN 350 to 600 (14 to 24"): Carbon steel with protective varnish □ Sensor connection housing (standard): AISi10Mg, coated □ Sensor connection housing (option): 1.4409 (CF3M) similar to 316L	□ DN 25 to 300 (1 to 12"): AISi10Mg, coated □ DN 25 to 2000 (1 to 78"): Carbon steel with protective varnish □ Sensor connection housing (standard): AISi10Mg, coated □ Sensor connection housing (option): Polycarbonate
Transmitter housing material	□ AISi10Mg, coated; 1.4409 (CF3M) similar to 316L; stainless steel for hygienic transmitter design	□ AISi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat	□ Polycarbonat; AISi10Mg, coated
Degree of protection	□ Standard: IP66/67, Type 4X enclosure □ Option: IP69	□ Sensor remote version (standard): IP66/67, type 4X enclosure □ Sensor remote version (option): IP69. Transmitter remote version: IP66/67, Type 4X enclosure	□ Compact version: IP66/67, type 4X enclosure □ Sensor remote version (standard): IP66/67, type 4X enclosure □ Sensor remote version (option): IP68, type 6P enclosure, with protective varnish □ according to EN ISO 12944 C5-M/Im1/Im2/Im3 □ 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 □ Remote display available	□ 4-line backlit display with touch control (operation from outside) □ Configuration via local display and operating tools possible	□ 4-line backlit display with touch control (operation from outside) □ Configuration via local display, web browser and operating tools possible
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	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	3 outputs: □ 0-20 mA/4-20 mA HART (active) □ Pulse/frequency/switch output (passive) □ Pulse/frequency output (passive) □ Switch output (passive)
Inputs	□ Status input □ 4-20 mA input	□ Status input □ 4-20 mA input	□ Status input
Digital communication	□ HART, PROFIBUS PA, FOUNDATION Fieldbus, Modbus	□ HART, PROFIBUS PA, FOUNDATION Fieldbus, Modbus	□ HART, PROFIBUS DP, EtherNet/IP, Modbus RS485

	RS485, Profinet, Ethernet/IP, OPC-UA	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)	□ DC 24 V □ AC 100 to 230 V □ AC 100 to 230 V / DC 24 V (non-hazardous area)	□ AC 100...240 V / AC/DC 24 V
Hazardous area approvals	□ ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC	□ ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC	□ cCSAus
Other approvals and certificates			
Product safety	□ CE, C-tick, EAC marking	□ CE, C-tick, EAC marking	
Functional safety	□ Functional safety according to IEC 61508, applicable in safety-relevant applications in accordance with IEC 61511	□ 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-attestation)	□ 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-attestation)	□ Calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025), NAMUR Custody transfer according to MI-001 or OIML R49 (optional class I in combination with ODN inlet run)
Marine approvals and certificates			
Pressure approvals and certificates	□ PED, CRN	□ PED, CRN	□ CRN
Material certificates	□ 3.1 material	□ 3.1 material	□ 3.1 material
Hygienic approvals and certificates	□ ACS, NSF 61	□ ACS, NSF 61	□ Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920



Proline Promag W 500 / 5W5B



Proline Promag W 800 / 5W8B



Measuring principle	Electromagnetic	Electromagnetic
Product headline	The remote version with up to 3 I/Os and a sensor with EN ISO 12944 corrosion protection. For direct underground installation or permanent underwater use. The specialist in the water and wastewater industry for the most demanding applications.	The battery-powered flowmeter with certified corrosion protection (EN ISO 12944) and intelligent energy efficient mode. For direct underground installation or permanent underwater use. Certified sensor in the water and wastewater industry for the most demanding applications.
Sensor features	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).	Secure, reliable long-term operation – robust and completely welded sensor. Energy-saving flow measurement – no pressure loss due to cross-section constriction. Maintenance-free – no moving parts. International drinking water approvals. Degree of protection IP68 (Type 6P enclosure).
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 3 I/Os. Backlit display with touch control and WLAN access.	No power grid required – battery lifetime of up to 15 years. Worldwide transmission of measured data and events via e-mail and SMS – integrated GSM/GPRS modem. Reliable data storage – integrated SD card. Transmitter housing made of durable polycarbonate. All in 1 housing incl. batteries & wireless modem.
Nominal diameter range	□ DN 25 to 2000 (1 to 78")	□ DN 25 to 300 (1 to 12")
Wetted materials	□ Liner: Polyurethane; Hard rubber □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022); Tantalum	□ Liner: polyurethane; hard rubber □ Electrodes: 1.4435 (316L); Alloy C22, 2.4602 (UNS N06022)
Measured variables	□ Volume flow, conductivity, mass flow	□ Volume flow, mass flow
Max. measured 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), Flat Spec	□ Volume flow: ±0.5 % o.r. ± 2 mm/s (±0.5 % o.r. ± 0.08 in/s)
Measuring range	□ 9 dm³/min to 110 000 m³/h (2.5 gal/min to 700 Mgal/d)	□ 15 dm³/min to 2500 m³/h (4 to 11 000 gal/min)
Max. process pressure	□ PN 40, Class 300, 20K	□ PN 40, Class 300, 20K
Medium temperature range		

	□ Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) □ Liner material polyurethane: – 20 to +50 °C (–4 to +122 °F)	□ Liner material hard rubber: 0 to +80 °C (+32 to +176 °F) □ Liner material polyurethane: – 20 to +50 °C (–4 to +122 °F)
Ambient temperature range	□ Flange material carbon steel: – 10 to +60 °C (+14 to +140 °F) □ Flange material stainless steel: –40 to +60 °C (–40 to +140 °F)	□ Flange material carbon steel: – 10 to +60 °C (14 to +140 °F) □ Flange material stainless steel: –40 to +60 °C (–40 to +140 °F)
Sensor housing material	□ DN 25 to 300 (1 to 12"): AISi10Mg, coated □ DN 25 to 2000 (1 to 78"): Carbon steel with protective varnish □ Sensor connection housing (standard): AISi10Mg, coated □ Sensor connection housing (option): Polycarbonate; 1.4409 (CF3M) similar to 316L	□ Standard: Carbon steel with protective varnish, fully welded □ Sensor connection housing: Polycarbonate
Transmitter housing material	□ AISi10Mg, coated; 1.4409 (CF3M) similar to 316L; Polycarbonat	□ Polycarbonat
Degree of protection	□ Compact version: IP66/67, type 4X enclosure □ Sensor remote version (standard): IP66/67, type 4X enclosure □ Sensor remote version (option): IP68, type 6P enclosure, with protective varnish according to EN ISO 12944 C5-M/Im1/Im2/Im3	□ Compact version: IP66/67, type 4X enclosure □ Sensor remote version (standard): IP66/67, type 4X enclosure □ Sensor remote version (option): IP68, type 6P enclosure, with protective varnish according to EN ISO 12944 C5-M/Im1/Im2/Im3. □ 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	□ 4-line backlit display with touch control (operation from outside) □ Configuration via local display and operating tools possible; Remote data access via mail and SMS
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	□ Pulse/switch output (passive)
Inputs	□ Status input □ 4-20 mA input	□ Status input
Digital communication	□ HART, PROFIBUS PA, FOUNDATION Fieldbus, Modbus RS485, Profinet, Ethernet/IP, OPC-UA	□ GSM/GPRS
Power supply	□ DC 24 V □ AC 100 to 230 V	□ Internal: Batteries per DC 3.6 V

	AC 100 to 230 V / DC 24 V (non-hazardous area)	External: AC 100 to 240 V (44 to 66 Hz) / DC 12 to 60 V
Hazardous area approvals	ATEX, IECEx, cCSAus, INMETRO, NEPSI, EAC	None
Other approvals and certificates		
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), NAMUR - Heartbeat Technology complies with the requirements for traceable verification according to ISO 9001:2008 – Section 7.6 a (TÜV-attestation)	3.1 material, calibration performed on accredited calibration facilities (acc. to ISO/IEC 17025)
Marine approvals and certificates		
Pressure approvals and certificates	CRN	CRN
Material certificates	3.1 material	
Hygienic approvals and certificates	ACS, KTW/W270, NSF 61, WRAS BS 6920	Drinking water approval: ACS, KTW/W270, NSF 61, WRAS BS 6920