

# Proline Promass 300 / 500 New Product Offerings

## New improvements for the 300 / 500 Series for the oil and gas industry

- ▶ Improved compact housing with backlit display, touch controls and WLAN access
- ▶ Reduced complexity and variety - dual compartment housing with up to 3 freely configurable I/Os on the 300 transmitter and 4 configurable I/Os on the 500 transmitter
- ▶ Integrated verification through Heartbeat Technology
- ▶ Plain-text diagnostic messages and clearly documented verification results whilst devices remain connected, even where sensors are difficult to access
- ▶ Significantly reduced commissioning time and reduced reliance on "experts" - easy system integration
- ▶ Risk-free integration through extended host testing and certification
- ▶ Remote display available



Q 300

# Sensor Features

## Q Sensor



- ▶ Highest measurement performance for custody transfer, mass, volume flow and density in challenging applications
- ▶ Mass and volume flow: measured error  $\pm 0.05\%$  (PremiumCal)
- ▶ Inline density accuracy with measured error  $\pm 0.0002$  g/cc
- ▶ Highest turndown (50:1) due to lowest zero point instability
- ▶ Optimized performance for liquids with entrained gas with MFT (Multi-Frequency Technology)
- ▶ Reduced pressure drop and increased throughput per line size
- ▶ Medium temperature:  $-196$  to  $+205$  °C ( $-320$  to  $+401$ °F)
- ▶ Nominal diameter: DN 25 to 100 (1 to 4")

## F Sensor



- ▶ Mass and volume flow: measured error  $\pm 0.05\%$  (PremiumCal)
- ▶ Suitable for medium temperatures up to  $-196$  °C ( $-320$  °F)
- ▶ Nominal diameter: DN 8 to 250 (3/8 to 10")
- ▶ Low-profile sensor design fits easily into the piping layout
- ▶ Premium accuracy over the broadest range of applications

## E Sensor



- ▶ Compact dual-tube sensor
- ▶ Medium temperature up to  $+150$  °C ( $+302$  °F)
- ▶ Process pressure: up to 100 bar (1450 psi)
- ▶ Nominal diameter: DN 8 to 80 (3/8 to 3")
- ▶ Cost effective solution for Coriolis applications

## X Sensor



- ▶ Nominal diameter: DN 350 (14") to 400 (12 to 16")
- ▶ Flanged connection from DN 300 to 400 (12 to 16")
- ▶ Highest capacity four-tube flowmeter with low pressure drop
- ▶ Complete exterior design made of 1.4435 (316L)
- ▶ Designed to meet the requirements of the oil and gas industry for high flow rate applications requiring reliability and low maintenance

## O Sensor



- ▶ Measuring tube in 25Cr Duplex, 1.4410 (UNS S32750)
- ▶ Process pressure up to PN 250, Class 1500
- ▶ Nominal diameter: DN 80 to 150 (3 to 6")
- ▶ Robust design combines pressure and corrosion resistance
- ▶ Ideal for demanding upstream oil and gas applications such as high pressures up to 258 bar (3742 psi) or hydrocarbons with highly aggressive hydrogen sulfide ( $H_2S$ ) content

# Transmitter Features

## 300 Transmitter



## 500 Transmitter



### Heartbeat technology

- ▶ Safe processes – permanent process and device diagnostics with clear indication of error and remedy by Heartbeat Diagnostics
- ▶ Reduce cost and risk associated with calibrating your meters – compliant in-process testing by Heartbeat Verification
- ▶ Full transparency for predictive maintenance – device and process data made available for trend analyses by Heartbeat Monitoring

### Seamless system integration

- ▶ Direct and transparent integration of devices – flowmeters available with all state-of-the-art fieldbuses
- ▶ Perfect interaction between device and host – risk-free integration through extended host testing and certification
- ▶ Simple device replacement without expert know-how – guaranteed compatibility between devices and process control systems at all times

### Data storage concept (HistoROM)

- ▶ Maximum plant safety – automatic storage of all device and configuration data
- ▶ Quick, easy, and safe exchange of components without need for parameterization of special user know-how – automatic restoration of data and settings
- ▶ Optimized operation and maintenance – safe monitoring of data series and quick failure analysis by integrated event logbook and data logger

### Operation concept (HMI)

- ▶ Reduced complexity of operation – time-saving, standardized operating concept with uniform use interfaces, menu structures and parameter names
- ▶ Quick and safe commissioning – faultless operation due to guided parameterization for applications and brief explanations of the parameter functions
- ▶ Optimum usability – operator-oriented menu structure for user-specific tasks and multi-language support for worldwide use

### Web server

- ▶ No time wasting due to complex systems – no special equipment, software or additional interfaces required
- ▶ Increased plant accessibility – time-saving local operation and comprehensive access to device, diagnostic and process information
- ▶ Unnecessary plant downtime avoided – fast data up/download during maintenance or service, e.g. for data storage

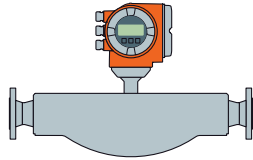
### Slot by slot I/O configuration

- ▶ The 300 transmitter has a total of three I/O selections and the 500 transmitter has four selections
- ▶ Select only the modules that you need per the table below
- ▶ The new User Configurable selection is configured at the time of commissioning to either a 0/4 to 20 mA output, pulse/frequency/switch output, 0/4 to 20 mA input, or a status input for maximum flexibility of use

# Variety of installation concepts

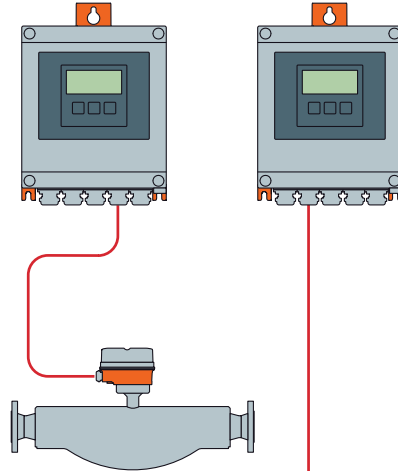
Proline 300  
(compact version)

Non-Ex  
Ex: Zone 2, Class I Div. 2

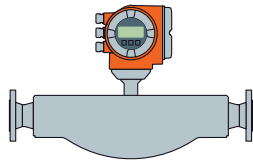


Proline 500  
(remote version)

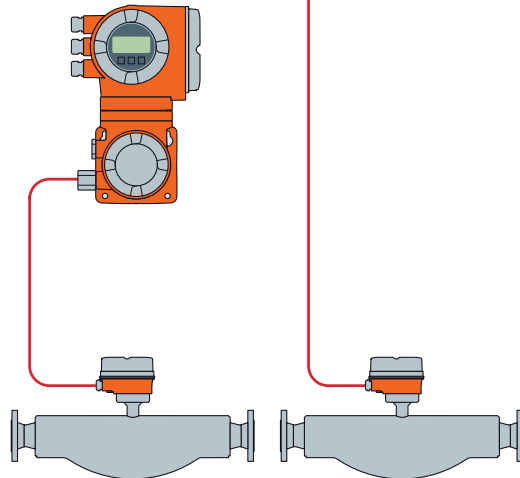
Non-Ex  
Ex: Zone 2, Class I Div. 2



Ex: Zone 1, Class I Div. 1



Ex: Zone 1, Class I Div. 1



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