

## **Proline Promass 80E, 83E**

### **Coriolis flowmeter**

#### Function and system design

##### - Measuring principle

The measuring principle is based on the controlled generation of Coriolis forces. These forces are always present when both translational and rotational movements are superimposed.

##### - Measuring System

The measuring system consists of a transmitter and a sensor. Two versions are available:

- Compact version: transmitter and sensor form a mechanical unit.
- Remote version: transmitter and sensor are mounted physically separate from one another.

#### Performance characteristics

##### - Reference operating conditions

- Error limits following ISO/DIN 11631
- Water, typically +15...+45 °C (+59...+113 °F); 2...6 bar (29...87 psi)
- Data according to calibration protocol
- Accuracy based on accredited calibration rigs according to ISO 17025

#### Installation

##### - Installation Instructions

Note the following points:

- No special measures such as supports are necessary. External forces are absorbed by the construction of the instrument, for example the secondary containment.
- The high oscillation frequency of the measuring tubes ensures that the correct operation of the measuring system is not influenced by pipe vibrations.
- No special precautions need to be taken for fittings which create turbulence (valves, elbows, T-pieces etc.), as long as no cavitation occurs.

##### Horizontal installation

When using a bent measuring tube and horizontal installation, the position of the sensor has to be matched to the fluid properties!

*Horizontal installation for sensors with a bent measuring tube*

*1 Not suitable for fluids with entrained solids. Risk of solids accumulating.*

*2 Not suitable for outgassing fluids. Risk of air accumulating.*

#### Operability

- Liquid-crystal display: backlit, two lines (Promass 80) or four lines (Promass 83) with 16 characters per line
  - Selectable display of different measured values and status variables
  - At ambient temperatures below  $-20\text{ }^{\circ}\text{C}$  ( $-4\text{ }^{\circ}\text{F}$ ) the readability of the display may be impaired.
- Operating elements

#### Promass 80

- Local operation with three keys
- Quick Setup menus for straightforward commissioning

#### Promass 83

- Local operation with three optical keys
- Application-specific Quick Setup menus for straightforward commissioning

#### Ordering Information

Contact your SitePro sales associate at **1-806-687-5326**

For more detailed information please see attachments under the product on the website.