Magnetic Flow

Proline Promag 50W, 53W

Function and System Design

- Measuring Principle

Following Faraday's law of magnetic induction, a voltage is induced in a conductor moving through a magnetic field. In the electromagnetic measuring principle, the flowing medium is the moving conductor. The voltage induced is proportional to the flow velocity and is supplied to the amplifier by means of two measuring electrodes. The flow volume is calculated by means of the pipe cross-sectional area. The DC magnetic field is created through a switched direct current of alternating polarity.

- 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: Sensor is mounted separate from the transmitter.

Performance Characteristics

- Reference Operating Conditions

As per DIN EN 29104 and VDI/VDE 2641:

Fluid temperature: +28 °C ± 2 K (+82 °F ± 2 K)

Ambient temperature: +22 °C ±2 K (+72 °F ± 2 K)

Warm-up period: 30 minutes

Installation

- Mounting

Entrained air or gas bubble formation in the measuring tube can result in an increase in measuring errors.
Avoid the following installation locations in the pipe:
Highest point of a pipeline. Risk of air accumulating!
Directly upstream from a free pipe outlet in a vertical pipeline.

Operability

Promag 50:
Local operation via three keys (S, O, F)
Quick Setup menus for straightforward commissioning

Promag 53:
Local operation via three keys (S, O, F)

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.