FLOWSTREAM Orifice Plate

For Topside Flow Measurement

Flow Measurement Excellence

Widely recognized by the Oil, Gas & Petrochemical industries worldwide, Solartron ISA offers more than 45 years experience in the design and manufacture of primary Differential Pressure flow meter devices.

Solartron ISA: Engineering a solution for the metering community.

Orifice Plate

The Orifice plate is the most commonly used differential pressure device, being economical, simple and of sufficient accuracy for many applications within the industry.

Calibration and Dimensional Certificates are available for square edge orifice plates for use in Fiscal and Allocation metering, if required.

Available designs include:

Square Edge Orifice Plates

- Process Flow Measurement of hydrocarbons, most gases and liquids
- Allocation flow metering
- Custody Transfer and fiscal flow metering

Conical Entrance & Quarter Circle

- Flow measurement of viscous fluids
- Applications with low Reynolds numbers

Eccentric Plates.

- Flow Measurement of dirty and contaminated fluids
- Flow metering of fluids with suspended solids or entrained gas

Benefits

Solartron ISA is able to advise the most suitable flow measurement solution for each application, using proven flow metering technology with Differential Pressure measurement covered in ISO 5167-2, ISO TR-15377, AGA3 and ASME MFC-3M. These devices are low maintenance with no moving parts, and considered an economical cost effective flow measurement solution for many gas, liquid and steam applications.

Applications

- Hydrocarbon Gas & Liquids
- Process Measurement Allocation
- Fiscal Measurement

Key Parameters

- Proven Technology
- Flow Measurement in Circular Pipes
- No moving parts

Standards

- ISO 5167-2
- ISO TR-15377
- ASME MFC-3M
- AGA3
- ISO 9001
- PED-97/23/EC

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AMETEK® OIL & GAS

FLOWSTREAM Orifice Plate

Specifications

Functional Specifications

Line Size

DN15 (1/2") to DN1200 (48")

Types of Plate

Square Edge

Conical Entrance

Quarter Circle

Eccentric

Beta Ratio

0.15 to 0.80

(Plate type dependent)

Reynolds Number

From 80 to an unlimited maximum

(Dependent on design of plate)

Accuracy (Flow Rate)

±1% with a calibrated spool

Typically ± 2 to 3%

Flow Turndown

Typically >10:1, depending on Transmitter configuration

Physical Specifications

Plate / Carrier Material

304ss / 316ss / 321ss / UNS S31803

UNS S32760 / UNS S31254

Alloy 400 / 625 / 825 / C276

Tantalum / Titanium

Others available on request

Installation Method (Between)

Flanges (API / ASME)

Hubs

Carriers

Welded directly into piping

Square Edge

Eccentric

Conical Entrance

Quarter Circle

AMETEK®
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