



FLOWSTREAM Orifice Carrier

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 Carrier

The Orifice Carrier is supplied for applications where existing pipe-work has no facility for orifice tappings: when flanges are not of sufficient thickness, flanges are of composite design, or pipes are lined preventing pipe taps

Available designs include:

Type CA – Integral Carrier

- One piece design with the orifice tappings integral to plate
- Easiest to install
- Can be supplied with bolt holes for Full Face installation, the preferred option for GRP or similar flange materials
- Includes an option for female grooved RTJ flanges

Type CB – Split Ring Corner Tappings

- High accuracy due to the annular chamber corner tappings
- Orientation of tappings can be adjusted on site to aid in the installation

Type CC – Split Ring Flange Tappings.

- Alternate option to Orifice Flanges
- Used on By-pass lines where rodding can be required

Type RTJ – Ring Type Joint Orifice Carrier.

- Designed incorporates a RTJ Holding Ring with removable plate
- Can be supplied as an integral if required
- Separate components should be supplied if the plate material is harder than flange material, to ensure the ring deforms and not the ring groove in the flange
- Typically the plate holder would be the same material as the gaskets

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. Improved metering uncertainty as the orifice carrier ensures the orifice plate and orifice tappings are compliant to 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

Key Parameters

- ✓ Proven Technology
- ✓ Flow Measurement in Circular Pipes
- ✓ Quality Orifice tappings to ISO 5167-2
- ✓ No moving parts

Standards

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

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Specifications

Functional Specifications

Line Size

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

Types of Plate

Square Edge

Conical Entrance

Quarter Circle

Eccentric

Types of Tappings

Corner

Corner (Annular Chamber)

Flange

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

Soft Iron

A516 Gr.60

Others available on request

Installation Method (Between)

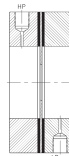
Flanges (API / ASME / BS4504)



Type CA



Type CB



Type CC



Type RTJ



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