

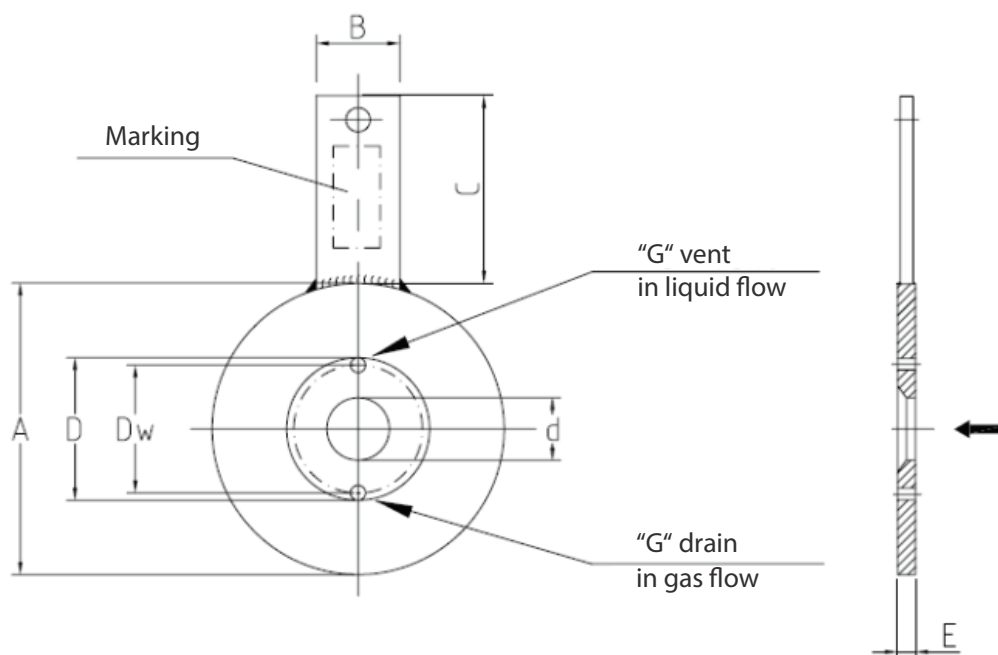
OPL-401

ORIFICE PLATES according to EN ISO 5167:2005 for $D \geq 50$ mm ASME-MFC-14M-2003 for $D < 50$ mm Flange Taps

Detailed information is show on construction drawings provided by Buyer or prepared by Alf-Sensor.

Basic dimensions required according to above mentioned standards are show on the sketch underneath:

Note: bore diameter shall be provided by Buyer, alternatively calculation may be done by Alf-Sensor using data provided (ref to OPL_FLOW QUESTIONNAIRE)



Dimensional data of the paddle type orifice plate

D – pipe internal diameter

d- orifice bore diameter

E – orifice plate thickness

e – orifice plate throat thickness

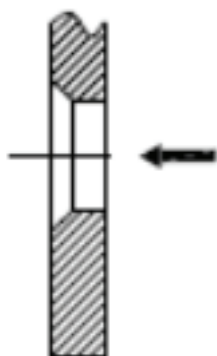
G – vent & drain hole diameter (according ISA-RP3.2 only)

Dw - diameter of Vent & hole circle (according ISA-RP3.2 only)

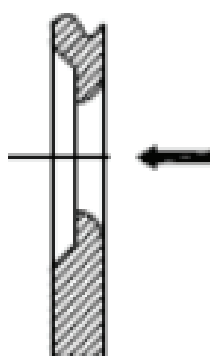
NPS & rating – nominal diameter/rating according to ASTM B16.36

Additionally required: fluid state (gas, liquid, steam)

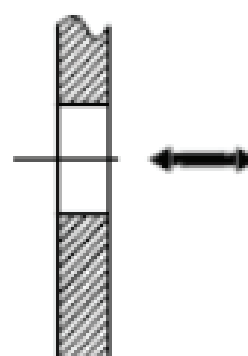
OPL-401 Flange Taps Orifice Plates cntd.



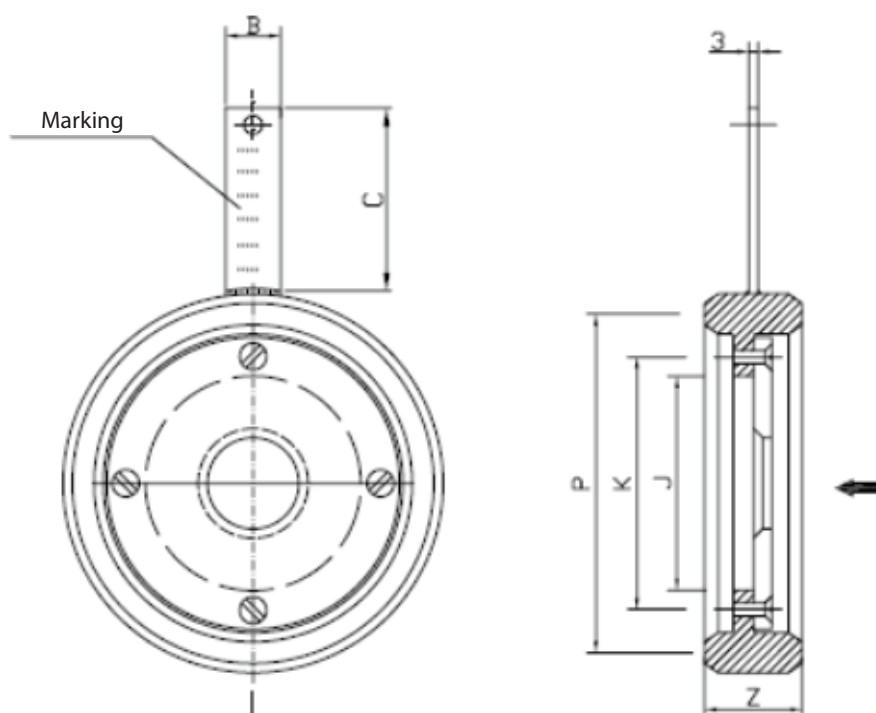
Sharp edge orifice plate concentric, basic design. Flange pressure taps. Installation between orifice flanges according to ASME B16.36 RF facing.



Quadrant bored orifice is applied to measure the flow of high viscosity fluids, when Reynolds Number is below 10 000. The radius „R” is a function of β ratio.



Sharp edge orifice plate concentric, basic design. Installation between flanges according to ASME B16.36 RF facing. For bidirectional flow.



Sharp edge orifice plate concentric.
Installation between flanges according to ASME B16.36 RTJ facing.

Ordering Information

OPL- 401	A	B	C	D	E	F	G	H				
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A Nominal Pipe Diameter, DN or NPS	
	according to EN-DIN
	according to ASME

B Rating / Facing	
	according to EN-DIN
	according to ASME

C External Diameter of Orifice , A	
	specify in mm

D Internal Pipe Diameter, D	
	specify in mm

E Bore Diameter, d	
	specify in mm*

F Orifice Plate Material	
	specify material

G Process Fluid State	
liquid	liquid
gas	gas
steam	steam

H Special Requirements	
	quality certificate
	heat treatment approval NACE
	Charpy V-notch impact testing
	bidirectional flow
	sharp edge

* Bore diameter is calculated by Alf-Sensor on the base of FLOW QUESTIONNAIRE filled in by Buyer

Non-standard models available.

Ordering Example:

OPL-401-4"-300RF-149,0- 98,2-50,12-1.4404-steam-sharp edge

stands for: Flange taps orifice plate, NPS 4 inches, Flange 300 lbs / facing RF, External diameter of orifice 149,0 mm, Internal pipe diameter 98,2 mm, Bore diameter 50,12 mm, Orifice plate material 1.4404 = SS316L, Process fluid: steam, Special requirement: Sharp edge orifice