

Project . BINAK

ISO Orifice Plate - Concentric - Flange Taps - Gas Flow

Tag number FE-2271

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Input data

Fluid	GAS
Maximum gas flow	556.38 kg/h
Normal gas flow	505.8 kg/h
Meter inlet pressure	4.9 barg
Differential range	250 mbar
Flow temperature	36.78 degC
Molecular weight	24.52
Cp/Cv specific heat ratio	1.245
Viscosity @ FTP	.011 cp
Pipe inside diameter	2 in
Density @ FTP	5.771 kg/m3
Critical pressure	bara
Critical temperature	degC
Base pressure	14.69595 psia
Base temperature	59 degF
Barometric pressure	14.7 psia
Element material	301 stainless steel
Pipe material	Carbon steel

Output data

Orifice diameter	24.4537 mm
Beta ratio	.481371
Normal flow differential	206.6 mbar
Uncertainty percent	.6101 percent
Reynolds number	320036
Max pressure loss	186.5 mbar
Max power loss	.6716 hp
Flow status	
Minimum plate thickness	3.175 mm
Thermal expansion factor	1.00026
Discharge coefficient	.603185
Gas expansion factor	.987977
Base pressure factor	1
Base temperature factor	1

English mass units

Source - ISO 5167-2:2003. Orifice plates

InstruCalc Ver.9.0.3.

Notes