

WINFLOW 2.75 (I) Diff. Pressure Calculation ITABAR - Flow - Sensor

Company: Airlitec
 Name(capital letters):
 Street:
 Zip Code/City:
 Offer-/Com. No: 11/29703
 P. Order Number:
 Tag No.:
 Serial No.:
 Pipe Data: ID=40,00/4,000 mm - horizontal
 Date: 06.09.2011
 Person in charge: E.E.

Calculation: Mass rate Gas & steam
 Fluid: Carbon dioxide

Base Temperature	273,15 Kelvin
Base Pressure	101,33 kPa

Pipe Internal Dimensions to 20°C 40,00 mm

Flowing Temperature: 50,000 °C
 Flowing Pressure: 22,000 bar G
 Density: 37,962 kg/m³
 Viscosity: 0,0162 cPs
 K-Factor: 0,4505 without unit

ty corrected value: 37,9621

Comp. factor at operating cond. : 1,0000
 Comp. factor at norm cond. : 1,0000
 Ratio of Specific Heat: 1,30

	QMax	QNorm	QMin	
Flow Rate	2.500,00	2.000,00	500,00	kg/H
Reynolds No.	1.364.198	1.091.358	272.840	without unit
Permanent press. loss	59,510	38,080	2,380	mbar
Expansionsfactor	1,000	1,000	1,000	without unit
Velocity:	14,56	11,65	2,91	m/sec.
Differential Pressure	191,970	122,847	7,676	mbar

Itabar-Type: IBF-20-DN40-S-SM-A02-R-M-S2-0-KI-HL-A03-A56
 Material Sensor 316SS
 Note:

Max. DeltaP 1.848,10 mbar Max. Flow Rate 7.758,11 kg/H
 Natural Freq.: 1.531,46 hz Operat. Freq.: 1.089,08 hz