

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

Company: Airlitec  
 Name(capital letters):  
 Street:  
 Zip Code/City:  
 Offer-/Com. No: 11/30002  
 P. Order Number:  
 Tag No.:  
 Serial No.:  
 Pipe Data: ID=159,30/4,500 mm - horizontal  
 Date: 27.10.2011  
 Person in charge: E.E.

Calculation: Mass rate Gas & steam  
 Fluid: Superheated steam

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

Pipe Internal Dimensions to 20°C 159,30 mm  
 Pipe Internal Dimensions 300,00 °C 160,11 mm  
 Flowing Temperature: 300,000 °C  
 Flowing Pressure: 25,000 bar A  
 Density: 10,091 kg/m<sup>3</sup>  
 Viscosity: 0,0200 cPs  
 K-Factor: 0,5968 without unit

	QMax	QNorm	QMin	
Flow Rate	25.000,00	20.000,00	5.000,00	kg/H
Reynolds No.	2.760.671	2.208.537	552.134	without unit
Permanent press. loss	26,940	17,240	1,080	mbar
Expansionsfactor	0,999	1,000	1,000	without unit
Velocity:	34,18	27,35	6,84	m/sec.
<b>Differential Pressure</b>	<b>160,435</b>	<b>102,640</b>	<b>6,411</b>	<b>mbar</b>

Itabar-Type: IBFD-25-ID159,3/4,5mm-S-SM-1-2-R-M-C2-0-K1H-KI-HL-T0-A81  
 Material Sensor 316SS  
 Note:

Max. DeltaP	277,70 mbar	Max. Flow Rate	32.908,22 kg/H
Natural Freq.:	446,55 hz	Operat. Freq.:	426,19 hz