

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

Company: Airlitec  
 Name(capital letters):  
 Street:  
 Zip Code/City:  
 Offer-/Com. No: 11/29902  
 P. Order Number:  
 Tag No.: 04 FT 01  
 Serial No.:  
 Pipe Data: ID=135,70/1,900 mm - vertikal  
 Date: 07.10.2011  
 Person in charge: E.E.

Calculation: Volume Rate of Flow Gas(Standard Cond.)  
 Fluid: Air

Base Temperature	288,15 Kelvin
Base Pressure	101,30 kPa

Pipe Internal Dimensions to 20°C 135,70 mm  
 Pipe Internal Dimensions 50,00 °C 135,70 mm  
 Flowing Temperature: 50,000 °C  
 Flowing Pressure: 180,000 mmWS G  
 Density: 1,226 kg/Nm3  
 Viscosity: 0,0196 cPs  
 K-Factor: 0,5658 without unit  
 Op. Density: 1,112

Comp. factor at operating cond. : 1,0000  
 Comp. factor at norm cond. : 1,0000  
 Ratio of Specific Heat: 1,40

	QMax	QNorm	QMin	
Flow Rate	780,00	624,00	156,00	Nm3/H
Reynolds No.	127.082	101.666	25.416	without unit
Permanent press. loss	0,890	0,570	0,040	mbar
Expansionsfactor	1,000	1,000	1,000	without unit
Velocity:	16,51	13,21	3,30	m/sec.
<b>Differential Pressure</b>	<b>4,630</b>	<b>2,960</b>	<b>0,190</b>	<b>mbar</b>

Itabar-Type: IBR-25-ID135,7/1,9mm-S-2-Y-KI-VL-T0-A03-A56  
 Material Sensor 316SS  
 Note:

Max. DeltaP 755,00 mbar  
 Natural Freq.: 1.174,55 hz  
 Max. Flow Rate 9.700,82 Nm3/H  
 Operat. Freq.: 5,88 hz