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

Company:	Airlitec
Name(capital letters):	
Street:	
Zip Code/City:	
Offer-/Com. No:	12/31079
P. Order Number:	
Tag No.:	
Serial No.:	
Pipe Data:	ID=80,00/4,000 mm - horizontal
Date:	10.05.2012
Person in charge	E.E.

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

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

Pipe Internal Dimensions to 20°C 80,00 mm

Flowing Temperature:	35,000	°C	
Flowing Pressure:	0,280	bar G	
Density:	0,090	kg/Nm3	Op. Density: 0,102
Viscosity:	0,0092	cPs	
K-Factor:	0,6002	without unit	

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	2.200,00	1.760,00	440,00	Nm3/H
Reynolds No.	95.020	76.016	19.004	without unit
Permanent press. loss	2,590	1,660	0,100	mbar
Expansionsfactor	0,999	0,999	1,000	without unit
Velocity:	107,15	85,72	21,43	m/sec.
Differential Pressure	**15,960**	**10,210**	**0,640**	**mbar**

Itabar-Type: IBF-20-DN80-S-SM-1-A01-R-M-C1-0-KI-HL-A03-A56
Material Sensor 316SS
Note:

Max. DeltaP	698,70 mbar	Max. Flow Rate	14.570,78 Nm3/H
Natural Freq.:	855,65 hz	Operat. Freq.:	8,36 hz