

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

Company: YOKOGAWA
 Name(capital letters):
 Street:
 Zip Code/City:
 Offer-/Com. No:
 P. Order Number:
 Tag No.:
 Serial No.:
 Pipe Data: ID=60,00/3,00 mm - horizontal
 Date: 07/11/2011
 Person in charge

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

Pipe Internal Dimensions: 60.000 mm
 Flowing Temperature: 20.000 °C
 Flowing Pressure: 0.290 bar A
 Density: 1,29 kg/Nm3
 Viscosity: 0,02 cPs
 K-Factor: 0.5369 without unit

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

Op. Density: 0,345

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	150.00	120.00	30.00	Nm3/H
Reynolds No.	62,803	50,242	12,561	without unit
Permanent press. loss	4.100	2.620	0.160	mbar
Expansionsfactor	0.997	0.998	1.000	without unit
Velocity:	55.23	44.18	11.05	m/sec.
Differential Pressure	17.970	11.470	0.710	mbar

Itabar-Type: IBR-20
 Material Sensor
 Note:

Max. DeltaP	1,642.70 mbar	Max. Flow Rate	1,439.31 Nm3/H
Natural Freq.:	4,162.49 hz	Operat. Freq.:	23.26 hz

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 Person in charge

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

Pipe Internal Dimensions: 60.000 mm
 Flowing Temperature: 20.000 °C
 Flowing Pressure: 6.000 bar G
 Density: 1,29 kg/Nm3
 Viscosity: 0,02 cPs
 K-Factor: 0.5369 without unit

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

Op. Density: 8,339

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	60.00	48.00	12.00	Nm3/H
Reynolds No.	25,121	20,097	5,024	without unit
Permanent press. loss	0.030	0.020	0.000	mbar
Expansionsfactor	1.000	1.000	1.000	without unit
Velocity:	0.91	0.73	0.18	m/sec.
Differential Pressure	0.120	0.080		mbar

Itabar-Type: IBR-20
 Material Sensor
 Note:

Max. DeltaP	1,642.70 mbar	Max. Flow Rate	7,077.09 Nm3/H
Natural Freq.:	4,162.49 hz	Operat. Freq.:	23.26 hz