

Programa FlowExpertPro



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Programa FlowExpertPro Cálculo y Dimensionado

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The screenshot shows a Microsoft Internet Explorer browser window displaying the FlowExpertPro.com website. The browser's address bar shows the URL <http://www.flowexpertpro.com/>. The website header features the Invensys and FOXBORO logos, followed by the text "FlowExpertPro.com". A navigation menu includes links for Home, File, New Sizing, Help, and Login. The main content area displays a welcome message: "Welcome to FlowExpertPro.com!" and a prompt: "Please select a meter type to size." Below this prompt are five categories of flow meters, each with a representative image and a label: Coriolis, Magnetic, Vortex, Compact Orifice, and IFOA. At the bottom of the page, there is a copyright notice: "© Copyright 1998-2006 Invensys. All rights reserved. [Legal Information](#) and [Privacy Policy](#)". Below the copyright notice, it says: "Send comments and questions to [Customer Satisfaction Center](#). FlowExpertPro.com Revision 1.501." The browser's status bar at the bottom shows "Listo" and "Internet".



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FlowExpertPro.com - Microsoft Internet Explorer

Archivo Edición Ver Favoritos Herramientas Ayuda

Atrás Búsqueda Favoritos Multimedia

Dirección <http://www.flowexpertpro.com/FormProcessData.aspx> Ir Vínculos

Google Buscar Pop-ups permitidos Opciones

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Home | File | New Sizing | Help | Login

Vortex Meter - Process Data

Customer/Representative Process Data Extended Process Data Sizing

Fluid Type: Gas Tag Number: FT-504A
Fluid: Hydrogen Gas (Normal) Select Tag Name: Hydrogen to Reactor

	Minimum Startup	Normal	Maximum	Units
Flow Rate	400.00	2000.00	4000.00	Nm ³ /hr Units
Temperature	0	20.0	40	°C
Pressure	20	24.00	25	bar
Density/SG		1.95704		kg/m ³
Viscosity		0.009		centipoise
Base Density		0.08987		kg/m ³

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Send comments and questions to Customer Satisfaction Center

Listo Internet



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The screenshot shows the FlowExpertPro.com website in a Microsoft Internet Explorer browser. The page title is "FlowExpertPro.com" and the URL is "http://www.flowexpertpro.com/FormFluidSelection.aspx?Fluid=". The page content is titled "Fluid Selection" and features a list of fluids on the left and a form for entering physical properties on the right.

Fluid Selection List:

- Hydrogen Gas (Normal)
- Hydrogen Gas (para)
- Hydrogen Iodide
- Hydrogen Nitrate / Nitric Acid
- Hydrogen Sulfate / Sulfuric Acid
- Hydrogen Sulfide
- Hydroxymethane / Methanol
- Hyprone / Acetophenone
- Iodine
- Iodobenzene
- Isoamylol / 3-Methyl-1-Butanol
- Isobutanal / Isobutyraldehyde
- Isobutane
- Isobutanol
- Isobutenal / Methacrolein
- Isobutene
- Isobutyl Acetate
- Isobutyl Alcohol / Isobutanol
- Isobutyraldehyde
- Isobutylene / Isobutene
- Isoheptane / 2-Methylhexane
- Isohexane / 2-Methylpentane
- Isopentane
- Isophthalic Acid
- Isopropanol
- Kelene / Ethyl Chloride
- Ketene
- Ketone Propane / Acetone

Physical Properties for Hydrogen Gas (Normal)

Enter temperature and pressure parameters.

Fluid Type: Gas

Temperature: 20.000 °C

Pressure: 24.000 bar

Density/SG: 1.95704 kg/m³

Viscosity: 0.009 centipoise

Molecular Weight: 2.016

Compressibility: 1.0143

Density Slope: -0.00664 kg/m³ per °C

Ideal Specific Gravity: 0.0696

Base Temperature: 0.000 °C

Base Pressure: 1.013 bar

Base Density: 0.08987 kg/m³

Update



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FlowExpertPro.com - Microsoft Internet Explorer

Archivo Edición Ver Favoritos Herramientas Ayuda

Atrás Búsqueda Favoritos Multimedia Ir Vínculos

Dirección <http://www.flowexpertpro.com/FormVortexEPD.aspx>

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Home | File | New Sizing | Help | Login

Vortex Meter - Extended Process Data

Customer/Representative Process Data **Extended Process Data** Sizing

Meter Body Type: Flanged
Sensor Fill Fluid and Material: Silicone Fill, Stainless Steel
Line Size: 40 mm
Mating Pipe Material: Carbon Steel
Sensor Type: Standard Range

Electrical

Dual Electronics and Isolation Valve: (S) Single, No Isolation Valve
Output: Analog
20 mA (URV): 4000.00 nm3h
4 mA (LRV): 0.00 nm3h

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Listo Internet



Programa FlowExpertPro

Cálculo y Dimensionado

FlowExpertPro.com - Microsoft Internet Explorer

http://www.flowexpertpro.com/FormVortexSizing.aspx

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Home | File | New Sizing | Help | Login

Vortex Meter - Sizing

Customer/Representative | Process Data | Extended Process Data | **Sizing** | Results

PSS | Send Model Code to BuyAutomation.com

Model: Model 83
Select Meter Size: 40 mm (Show Invalid Meters)

Maximum Meter Capacity (URL)	12852.091	Nm ³ /hr
Minimum Meter Capacity (LFCI)	195.355	Nm ³ /hr
Extended Meter Capacity	16065.114	Nm ³ /hr
Pressure Drop at Maximum Process Flow Rate	0.04	bar
Pressure Drop at Minimum Startup Process Flow Rate	0.00	bar
Accuracy at Maximum Process Flow Rate	1.00	%
Accuracy at Minimum Startup Process Flow Rate	1.00	%
Velocity at Maximum Process Flow Rate	44.8	m/s
Velocity at Minimum Process Flow Rate	4.5	m/s
Nominal Flowing K Factor	924.36	pulse/ Nm ³
Frequency at Maximum Process Flow Rate	1027.1	Hz
Reynolds Number at Minimum Startup Flow Rate	37077.6	

Listo Internet



Programa FlowExpertPro

Cálculo y Dimensionado

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Customer/Representative

Customer	Representative
Customer Name:	Company:
Contact Name:	Sales Person:
Address:	Sales Order Number:
	Date:
Phone Number:	Phone Number:
Fax Number:	Fax Number:
E-Mail Address:	Cellular Number:
	E-Mail Address:

Process Data

Meter Type:	Vortex
Fluid Type:	Gas
Fluid:	Hydrogen Gas (Normal)
Tag Number:	FT-504A
Tag Name:	Hydrogen to Reactor

	Minimum Startup	Normal	Maximum	
Flow Rate:	400.00	2000.00	4000.00	Nm ³ /hr
Temperature:	0.0	20.0	40.0	°C
Pressure:	20.00	24.00	25.00	bar
Density/SG:		1.95704		kg/m ³
Viscosity:		0.009		centipoise
Base Density:		0.08987		kg/m ³
Base Temperature:		0.0		°C
Base Pressure:		1.013		bar

Extended Process Data

Meter Body Type:	Flanged
Sensor Fill Fluid and Material:	Silicone Fill, Stainless Steel
Line Size:	40.00 mm
Mating Pipe Material:	Carbon Steel
Sensor Type:	Standard Range

Electrical

Dual Electronics and Isolation Valve:	(S) Single, No Isolation Valve
Output:	Analog
20 mA (URV):	4000.00 nm3h
4 mA (LRV):	0.00 nm3h



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Sizing

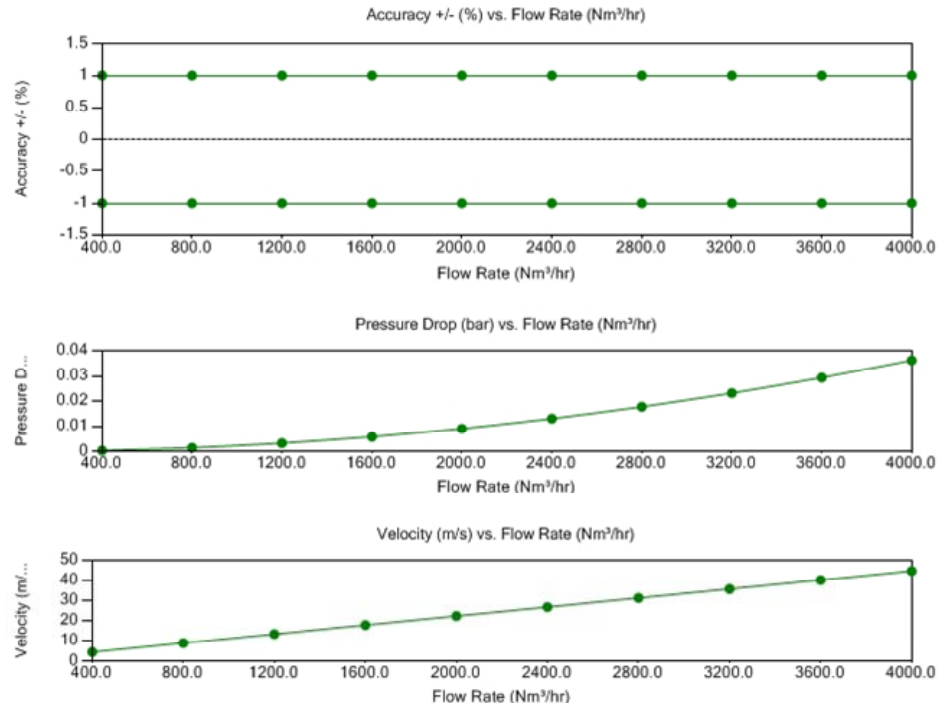
Model:	Model 83
Meter Size:	40 mm
Maximum Meter Capacity (URL):	12852.091 Nm ³ /hr
Minimum Meter Capacity (LFCI):	195.355 Nm ³ /hr
Extended Capacity:	16065.114 Nm ³ /hr
Pressure Drop at Maximum Process Flow Rate:	0.04 bar
Pressure Drop at Minimum Process Flow Rate:	0.00 bar
Accuracy at Maximum Process Flow Rate:	1.00 %
Accuracy at Minimum Process Flow Rate:	1.00 %
Velocity at Maximum Process Flow Rate:	44.8 m/s
Velocity at Minimum Process Flow Rate:	4.5 m/s
Nominal Flowing K Factor:	924.36 pulses/Nm ³
Frequency at Maximum Process Flow Rate:	1027.1 Hz
Reynolds Number at Minimum Startup Flow Rate:	37077.6
Wetted Material:	CF8M (316 ss) Cast Body / Flange and Shedder
Flange:	ANSI Class 300
Model Code:	83F-*1HS2SS***



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Cálculo y Dimensionado

Graphing



Graph Data Points

Flow Rate (Nm³/hr)	Accuracy +/- (%)	Pressure Drop (bar)	Velocity (m/s)
400.000	1.000	0.000	4.475
800.000	1.000	0.001	8.951
1200.000	1.000	0.003	13.426
1600.000	1.000	0.006	17.901
2000.000	1.000	0.009	22.377
2400.000	1.000	0.013	26.852
2800.000	1.000	0.018	31.327
3200.000	1.000	0.023	35.803
3600.000	1.000	0.029	40.278
4000.000	1.000	0.036	44.753

Please consult factory for additional information.
 Inside U.S.: 1-866-PHON-IPS (1-866-746-6477)
 Outside U.S.: 1-508-549-2424
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