

Rosemount™ Vortex Configuration Data Sheet

All sections are required on this form.
* = Default Value

Select only one of the items provided
 One or more of the listed items can be selected

Customer information	
Customer: _____	Contact Name: _____
P.O./Reference No: _____	Fax No./Email: _____
Phone No.: _____	P.O. Line Item: _____
Quote No. _____	Model No.: _____
Customer Signoff: _____	

Tagging
Hardware Tag.: _____ (21 characters max)
Software Tag: _____ (8 characters max for HART® 5, 32 max for FOUNDATION™ Fieldbus and HART 7)

Fluid selection			
Steam:	<input type="radio"/> Superheated	<input type="radio"/> Saturated - Pressure Based	<input type="radio"/> Saturated - Temperature Based
Liquid:	<input type="radio"/> Water	<input type="radio"/> Methanol	<input type="radio"/> Ethanol
	<input type="radio"/> Ammonia	<input type="radio"/> Oxygen	<input type="radio"/> Other ⁽¹⁾ _____
Gas:	<input type="radio"/> Air	<input type="radio"/> Nitrogen	<input type="radio"/> Hydrogen
	<input type="radio"/> Oxygen	<input type="radio"/> Carbon Dioxide	<input type="radio"/> Other ⁽¹⁾ _____
Natural Gas:	<input type="radio"/> Typical	<input type="radio"/> Other: Please complete Rosemount Natural Gas Worksheet 00806-0300-4803	
Custom ⁽²⁾ :	<input type="radio"/> Gas	<input type="radio"/> Liquid	
	Name _____		
	Density or Specific Gravity _____		
	Viscosity _____		
	Vapor Pressure (liquids) _____		
	Base Compressibility ⁽³⁾ _____		
	Operating Compressibility ⁽³⁾ _____		

1. See complete list of database fluids at end of this form.
2. Provide data at normal conditions.
3. Required for gases when specific gravity is provided. Not required if density is provided.

Process information					
	Units	Minimum	Normal	Maximum	Design
Flow Rate:					
Pressure:					
Temperature:					

Base conditions (Required only if Standard Volumetric Flow Rate Units are used)			
<input type="radio"/> Standard*	<input type="radio"/> Normal	<input type="radio"/> Standard - Natural Gas	<input type="radio"/> User Defined
P = 14.696 psia/101.3625 kPaa	P = 14.696 psia/101.3625 kPaa	P = 14.73 psia/101.3727 kPaa	P = _____
T = 60 °F/ 15.56 °C	T = 32 °F/0 °C	T = 60 °F/15.56 °C	T = _____m °F m °C

Variable mapping (HART only)					
Primary Variable:	<input type="radio"/> Volumetric Flow*	<input type="radio"/> Mass Flow	<input type="radio"/> Velocity Flow	<input type="radio"/> Process Temperature ⁽¹⁾	<input type="radio"/> Corrected Volumetric Flow
Secondary (SV), Tertiary (TV) and Quaternary (QV) Variables: Select up to 3 variables from the list. Mark the SV with a 2, TV with a 3, and QV with a 4.					
	<input type="checkbox"/> Volumetric Flow			<input type="checkbox"/> Electronics Temperature	
	<input type="checkbox"/> Corrected Volumetric Flow			<input type="checkbox"/> Calculated Process Density ⁽¹⁾	
	<input type="checkbox"/> Mass Flow			<input type="checkbox"/> Shedding Frequency	
	<input type="checkbox"/> Velocity Flow			<input type="checkbox"/> Pulse Output Frequency	
	<input type="checkbox"/> Process Temperature ⁽¹⁾			<input type="checkbox"/> Signal Strength	
	<input type="checkbox"/> Totalizer				

Process variable Configuration (HART only)			
	LRV ^{**}	URV ^{**}	UOM
Mass Flow:			
Volumetric Flow:			
Corrected Volumetric Flow			
Flow Velocity:			
Process Temperature ⁽¹⁾ :			⁽¹⁾

^{**} = Note that the LRV for the Process Variable that is mapped to the PV will determine the 4 mA set point of the transmitter. The URV for the Process Variable that is mapped to the PV will determine the 20 mA setpoint of the transmitter.

FOUNDATION Fieldbus configuration ⁽²⁾			
	Lower Limit	Upper Limit	UOM
Flow XD_Scale:			

1. MTA Option Only.
2. FOUNDATION Fieldbus is only available on 8800D.

Flow velocity/mating pipe I.D.	
Velocity Based on:	<input type="radio"/> Mating Pipe ID* <input type="radio"/> Meter Body ID
Process Line Size: _____	OR Mating Pipe I.D. _____ <input type="radio"/> Inches* <input type="radio"/> Millimeters
Mating Pipe Schedule:	<input type="radio"/> 10 <input type="radio"/> 40* <input type="radio"/> 80 <input type="radio"/> 160 <input type="radio"/> Other
Damping	
Flow: _____ sec (Default value is 2 seconds)	Damping must be between 0.2 and 255 seconds
Temperature: _____ sec (Default value is 2 seconds) ⁽²⁾	Damping must be between 0.4 and 32 seconds
Transmitter settings	
Hardware Selectables:	Alarm Direction ⁽¹⁾ : <input type="radio"/> High* <input type="radio"/> Low Transmitter Security: <input type="radio"/> Off* <input type="radio"/> On
Descriptor (HART Only): _____	(16 characters maximum)
Message: _____	(32 characters maximum)
Date: _____	(month/day/yr)
Pulse output (HART only)	
Pulse Output based on:	<input type="radio"/> Direct Shredding Frequency* <input type="radio"/> Mass Flow <input type="radio"/> Volumetric Flow <input type="radio"/> Corrected Volumetric Flow
Scaled: 1 Pulse = _____	(e.g., 1 Pulse = 10 gal)
OR _____	_____ Hz e.g., 10 gal/min = 1000 Hz
HART LCD configuration	Check all items to be displayed
<input type="checkbox"/> Volumetric Flow Rate	<input type="checkbox"/> Process Temperature ⁽²⁾
<input type="checkbox"/> Mass Flow Rate	<input type="checkbox"/> % Range*
<input type="checkbox"/> Velocity	<input type="checkbox"/> Primary Variable*
<input type="checkbox"/> Corrected Volumetric Flow	<input type="checkbox"/> Signal Strength
<input type="checkbox"/> Electronics Temperature	<input type="checkbox"/> Shedding Frequency
<input type="checkbox"/> Calculated Process Density ⁽²⁾	<input type="checkbox"/> Totalizer
<input type="checkbox"/> Analog Output	<input type="checkbox"/> Pulse Output Frequency
Fieldbus LCD configuration ⁽³⁾	Check all items to be displayed
<input type="checkbox"/> Process Temperature ⁽²⁾	<input type="checkbox"/> Shedding Frequency
<input type="checkbox"/> Electronics Temperature ⁽²⁾	<input type="checkbox"/> Integrator Output (Totalizer)
<input type="checkbox"/> Calculated Process Density ⁽²⁾	<input type="checkbox"/> % Range
Temperature sensor configuration ⁽²⁾	
Temperature Sensor Failure Alarm:	<input type="radio"/> Fixed Process Temperature* In the event of a temperature sensor failure, the vortex meter will output an alert and will use the fixed process temperature as a backup for the density and compensated mass flow calculations. <input type="radio"/> Alarm In the event of a temperature sensor failure, the vortex meter will go into an alarm mode. Note that if the Primary Variable is Process Temperature (HART Only), Alarm is automatically selected.

1. Not available with Foundation Fieldbus Output.
 2. MTA Option Only.
 3. FOUNDATION Fieldbus is only available on 8800D.

Temperature compensated liquids (MTA option only with HR5 or HR7 options)	
If liquid is not water, please specify between two and five custom temperature and density points. Add units of measure in the parenthesis.	
Temperature (unit of measure)	Density (unit of measure)
1. _____ (_____)	1. _____ (_____)
2. _____ (_____)	2. _____ (_____)
3. _____ (_____)	3. _____ (_____)
4. _____ (_____)	4. _____ (_____)
5. _____ (_____)	5. _____ (_____)
SMART Fluid Diagnostics (DS3 option only with HR5 or HR7 options)	
Detects when the process fluid flow changes from liquid to gas.	
Alert Type: <input type="radio"/> Analog <input type="radio"/> Pulse <input type="radio"/> Analog & Pulse <input type="radio"/> None	
Analog Alarm level (mA) _____	
Pulse Alarm level (Hz) _____	
Expected Gas Density (lb/cu ft) _____	
Advanced configuration options	
Low Flow Cutoff Response Type: <input type="radio"/> Damped* <input type="radio"/> Stepped	
HART output options	
Burst Mode <input type="radio"/> Disabled* <input type="radio"/> Enabled	
The following output options are specifically used for special HART Communication configurations	
Note: Required for User Selected Burst Variables	
Burst mode of HART digital process variable (Select one option below:)	Burst Variables
<input type="radio"/> All Dynamic Variables, Engineering Units	Variable 1 _____ Variable 5 _____
<input type="radio"/> All Dynamic Variables, Engineering Units and PV mA Value	Variable 2 _____ Variable 6 _____
<input type="radio"/> Primary Variable, % of Range	Variable 3 _____ Variable 7 _____
<input type="radio"/> Primary Variable, Engineering Units	Variable 4 _____ Variable 8 _____
<input type="radio"/> User Selected Burst Variables ⁽¹⁾	
Multidrop Communication (This option fixes the transmitter's analog output at 4 mA.)	
Choose Transmitter Address (1-15): _____	
Fieldbus node address⁽²⁾	
Choose Transmitter Address (20-247) ⁽³⁾ : _____	

1. Requires completed Burst Variable table.
2. FOUNDATION Fieldbus is only available on 8800D.
3. Unspecified address will be assigned between 248 and 251.

For Rosemount Internal Use Only		
Sales Order:	Line Item #:	ID#:
Cont. Admin.:	Salesperson:	

Fluid database list				
<input type="radio"/> 1~1~2~2-TETRAFLUORO-ETHANE	<input type="radio"/> 1~1~2-TRICHLOROETHANE	<input type="radio"/> 1~2~4-TRICHLOROBENZENE	<input type="radio"/> 1~2-BUTADIENE	<input type="radio"/> 1~3~5-TRICHLOROBENZENE
<input type="radio"/> 1~3-BUTADIENE	<input type="radio"/> 1~4-DIOXANE	<input type="radio"/> 1~4-HEXADIENE	<input type="radio"/> 1-BUTENE	<input type="radio"/> 1-DECANAL
<input type="radio"/> 1-DECANOL	<input type="radio"/> 1-DECANOL	<input type="radio"/> 1-DECENE	<input type="radio"/> 1-DODECANOL	<input type="radio"/> 1-DODECENE
<input type="radio"/> 1-HEPTANOL	<input type="radio"/> 1-HEPTENE	<input type="radio"/> 1-HEXADECANOL	<input type="radio"/> 1-HEXENE	<input type="radio"/> 1-NONANAL
<input type="radio"/> 1-NONANOL	<input type="radio"/> 1-OCTANOL	<input type="radio"/> 1-OCTENE	<input type="radio"/> 1-PENTADECANOL	<input type="radio"/> 1-PENTANOL
<input type="radio"/> 1-PENTENE	<input type="radio"/> 1-UNDECANOL	<input type="radio"/> 2~2-DIMETHYLBUTANE	<input type="radio"/> 2-METHYL-1-PENTENE	<input type="radio"/> ACETIC ACID
<input type="radio"/> ACETONE	<input type="radio"/> ACETONITRILE	<input type="radio"/> ACETYLENE	<input type="radio"/> ACRYLONITRILE	<input type="radio"/> AIR
<input type="radio"/> ALCOHOL/ETHANOL	<input type="radio"/> ALLYL ALCOHOL	<input type="radio"/> AMMONIA	<input type="radio"/> ARGON	<input type="radio"/> BEER
<input type="radio"/> BENZALDEHYDE	<input type="radio"/> BENZENE	<input type="radio"/> BENZYL ALCOHOL	<input type="radio"/> BIPHENYL	<input type="radio"/> CANOLA OIL
<input type="radio"/> CARBON DIOXIDE	<input type="radio"/> CARBON MONOXIDE	<input type="radio"/> CARBON TETRACHLORIDE	<input type="radio"/> CHLORINE	<input type="radio"/> CHLOROPRENE
<input type="radio"/> CHLOROTRIFLUORO-ETHYLENE	<input type="radio"/> CORN OIL	<input type="radio"/> CYCLOHEPTANE	<input type="radio"/> CYCLOHEXANE	<input type="radio"/> CYCLOPENTANE
<input type="radio"/> CYCLOPENTENE	<input type="radio"/> CYCLOPROPANE	<input type="radio"/> DIVINYL ETHER	<input type="radio"/> ETHANE	<input type="radio"/> ETHANOL
<input type="radio"/> ETHYLAMINE	<input type="radio"/> ETHYLBENZENE	<input type="radio"/> ETHYLENE	<input type="radio"/> ETHYLENE GLYCOL	<input type="radio"/> ETHYLENE OXIDE
<input type="radio"/> FLUORENE	<input type="radio"/> FURAN	<input type="radio"/> HELIUM-4	<input type="radio"/> HFCS 42%	<input type="radio"/> HFCS 55%
<input type="radio"/> HFCS 90%	<input type="radio"/> HYDRAZINE	<input type="radio"/> HYDROGEN	<input type="radio"/> HYDROGEN CHLORIDE	<input type="radio"/> HYDROGEN CYANIDE
<input type="radio"/> HYDROGEN PEROXIDE	<input type="radio"/> HYDROGEN SULFIDE	<input type="radio"/> ISOBUTANE	<input type="radio"/> ISOBUTENE	<input type="radio"/> ISOBUTYLBENZENE
<input type="radio"/> ISOPENTANE	<input type="radio"/> ISOPRENE	<input type="radio"/> ISOPROPANOL	<input type="radio"/> M-CHLORONITRO-BENZENE	<input type="radio"/> M-DICHLORO-BENZENE
<input type="radio"/> METHANE	<input type="radio"/> METHANOL	<input type="radio"/> METHYL ACRYLATE	<input type="radio"/> METHYL ETHYL KETONE	<input type="radio"/> METHYL VINYL ETHER
<input type="radio"/> MILK	<input type="radio"/> N-BUTANE	<input type="radio"/> N-BUTANOL	<input type="radio"/> N-BUTYRALDEHYDE	<input type="radio"/> N-BUTYRONITRILE
<input type="radio"/> N-DECANE	<input type="radio"/> N-DODECANE	<input type="radio"/> NEON	<input type="radio"/> NEOPENTANE	<input type="radio"/> N-HEPTADECANE
<input type="radio"/> N-HEPTANE	<input type="radio"/> N-HEXANE	<input type="radio"/> NITRIC ACID	<input type="radio"/> NITRIC OXIDE	<input type="radio"/> NITROBENZENE
<input type="radio"/> NITROETHANE	<input type="radio"/> NITROGEN	<input type="radio"/> NITROMETHANE	<input type="radio"/> NITROUS OXIDE	<input type="radio"/> N-NONANE
<input type="radio"/> N-OCTANE	<input type="radio"/> N-PENTANE	<input type="radio"/> ORANGE JUICE CONCENTRATE	<input type="radio"/> OXYGEN	<input type="radio"/> PEANUT OIL
<input type="radio"/> PENTAFLUOROETHANE	<input type="radio"/> PHENOL	<input type="radio"/> PROPADIENE	<input type="radio"/> PROPANE	<input type="radio"/> PROPYLENE
<input type="radio"/> PYRENE	<input type="radio"/> SOY OIL	<input type="radio"/> STYRENE	<input type="radio"/> SULFUR DIOXIDE	<input type="radio"/> TOLUENE
<input type="radio"/> TRICHLOROETHYLENE	<input type="radio"/> VINEGAR	<input type="radio"/> VINYL ACETATE	<input type="radio"/> VINYL CHLORIDE	<input type="radio"/> VINYL CYCLOHEXENE
<input type="radio"/> WATER	<input type="radio"/> WORT			