

Configuration Data Sheet

00806-0100-4811, Rev AB

March 2011

Rosemount Radar Level Transmitters

Level Application and Configuration Data Sheet

All sections are required on this form.

Select only one of the items provided

★ = Default Value

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: _____
Model No. _____	
Customer Signoff: _____	

Tagging
Hardware Tag: _____
Service: _____

Industry	
Industry:	<input type="radio"/> Chemical <input type="radio"/> Minerals and Mining
	<input type="radio"/> Electrical Equipment <input type="radio"/> Oil and Gas
	<input type="radio"/> Equipment Manufacturing <input type="radio"/> Power
	<input type="radio"/> Food and Beverage <input type="radio"/> Pulp and Paper
	<input type="radio"/> Heating, Ventilation, and Air Conditioning <input type="radio"/> Water and Wastewater
	<input type="radio"/> Life Sciences <input type="radio"/> Other _____

Media Information			
Application Description: _____	Process Variables:	<input type="radio"/> Level <input type="radio"/> Level and Interface	<input type="radio"/> Level and Interface <input type="radio"/> Volume
		<input type="radio"/> Distance <input type="radio"/> Interface (liquid/liquid)	
Vessel Type:	<input type="radio"/> Closed Vessel★ <input type="radio"/> Open Vessel		
Media State:	<input type="radio"/> Liquid <input type="radio"/> Slurry/Sludge/Paste <input type="radio"/> Solid/Powder/Granulate		
Process Media: _____	Dielectric Constant:	<input type="radio"/> 1.4-1.9 <input type="radio"/> 4.0-10.0	
		<input type="radio"/> 1.9-2.5 <input type="radio"/> >10	
		<input type="radio"/> 2.5-4.0 <input type="radio"/> Unknown	

Interface Media Information ⁽¹⁾			
Upper Layer Media: _____			
Upper Product Dielectric Constant: _____			
Upper Product Thickness:	Minimum: _____	<input type="radio"/> in. <input type="radio"/> ft.	Maximum: _____
		<input type="radio"/> mm <input type="radio"/> m	<input type="radio"/> in. <input type="radio"/> ft.
			<input type="radio"/> mm <input type="radio"/> m
Lower Layer Media: _____			
Lower Layer Dielectric Constant:	<input type="radio"/> 1.4-1.9 <input type="radio"/> 1.9-2.5 <input type="radio"/> 2.5-4.0		
	<input type="radio"/> 4.0-10.0 <input type="radio"/> >10 <input type="radio"/> Unknown		
Fully Submerged Probe ⁽²⁾	<input type="radio"/> No <input type="radio"/> Yes		

(1) Available with the Rosemount 3300 and 5300 Series only.

(2) If the probe is fully submerged at all times, Rosemount 3301 or 5301 can be used for measuring the interface between the upper and the lower product.

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Process Information (Only applicable for Liquid / Slurry applications)			
Operating Conditions			
Process Temperature:	Minimum: _____	<input type="radio"/> °F <input type="radio"/> °C	Maximum: _____
			<input type="radio"/> °F <input type="radio"/> °C
Process Pressure:	Minimum: _____	<input type="radio"/> psig <input type="radio"/> bar	Maximum: _____
			<input type="radio"/> psig <input type="radio"/> bar
Ambient Temperature:	Minimum: _____	<input type="radio"/> °F <input type="radio"/> °C	Maximum: _____
			<input type="radio"/> °F <input type="radio"/> °C
Process Medium Characteristics (liquids/slurries)			
Foam Present:	<input type="radio"/> Not Applicable	<input type="radio"/> Occasionally	<input type="radio"/> Constantly
Foam Type:	<input type="radio"/> Not Applicable <input type="radio"/> Light (Airy) <input type="radio"/> Medium <input type="radio"/> Heavy (Dense) _____		
Foam Thickness: _____	<input type="radio"/> in.	<input type="radio"/> mm	
Viscosity:	<input type="radio"/> 0.2 - 1.5 cP (water)	<input type="radio"/> 25 - 100 cP (vegetable oils)	<input type="radio"/> 100 - 500 cP (light machine / motor oils)
	<input type="radio"/> 2,000 - 10,000 cP (honey)	<input type="radio"/> 5,000 - 10,000 cP (molasses)	<input type="radio"/> >15,000 cP (very heavy oils/hot tar)
Condensing Vapors:	<input type="radio"/> None	<input type="radio"/> Light	
	<input type="radio"/> Medium	<input type="radio"/> Heavy	
Slurry Particle Size:	<input type="radio"/> None	<input type="radio"/> ≤ 5 mm	<input type="radio"/> > 5 mm
Coating Potential:	<input type="radio"/> None	<input type="radio"/> Film	<input type="radio"/> Heavy
Gas in Vapor Space:	<input type="radio"/> None	<input type="radio"/> Other: _____	
Other:	<input type="checkbox"/> Changing density	<input type="checkbox"/> Changing dielectric	<input type="checkbox"/> Crystallizing liquids
	<input type="checkbox"/> Emulsion Layer with thickness: _____		
	<input type="radio"/> in.	<input type="radio"/> ft.	<input type="radio"/> mm <input type="radio"/> m
	Note: Emulsion Layer is for interface applications only.		
Process Conditions			
Surface Conditions:	<input type="radio"/> Calm Surface or Slight Turbulence	<input type="radio"/> Chemical Reaction/Bubbling	
	<input type="radio"/> Agitation	<input type="radio"/> Splashing during fill	
	<input type="radio"/> Scraper Blades		
Rapid Level Changes ⁽¹⁾	<input type="radio"/> No	<input type="radio"/> >1.6-in./s (40 mm/s)	

(1) Due to overall level changes, not to turbulent surface.

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Vessel Information (Required for C1 option)	
Tank Shape:	<input type="radio"/> Unknown <input type="radio"/> Vertical cylinder <input type="radio"/> Spherical <input type="radio"/> Horizontal Cylinder <input type="radio"/> Cubical <input type="radio"/> Other (describe: _____)
Tank Material of Construction:	<input type="radio"/> Metal <input type="radio"/> Glass lined <input type="radio"/> Non-metal <input type="radio"/> Other: _____
Tank Bottom:	<input type="radio"/> Unknown <input type="radio"/> Flat <input type="radio"/> Dome/Dish/Bullet <input type="radio"/> Cone <input type="radio"/> Other (Inclined or obstructed due to heating coils, pipes, etc.).
Reference Height (R): _____	<input type="radio"/> mm <input type="radio"/> m <input type="radio"/> ft <input type="radio"/> in
Tank Diameter (D): _____	<input type="radio"/> mm <input type="radio"/> m <input type="radio"/> ft <input type="radio"/> in
Tank Nozzle Distance to Wall (d): _____	<input type="radio"/> mm <input type="radio"/> m <input type="radio"/> ft <input type="radio"/> in
Agitator⁽¹⁾:	<input type="radio"/> No <input type="radio"/> Yes
Baffles⁽¹⁾:	<input type="radio"/> No <input type="radio"/> Yes
Heating Coils⁽¹⁾:	<input type="radio"/> No <input type="radio"/> Around inside of tank wall <input type="radio"/> Across Tank bottom
Other Internal Obstacles⁽¹⁾:	<input type="radio"/> No <input type="radio"/> Yes
Upper Null Zone: _____	<input type="radio"/> mm <input type="radio"/> cm <input type="radio"/> m <input type="radio"/> ft <input type="radio"/> in

The diagram illustrates a cylindrical tank with a nozzle at the top. A horizontal line indicates the 'Reference Height (R)' measured from a 'Reference Point' at the bottom to the nozzle. The 'Tank Diameter (D)' is shown as a horizontal line across the tank's width. The 'Tank Nozzle Distance to Wall (d)' is the distance from the nozzle to the tank wall. An 'Upper Null Zone' is shown as a shaded area at the top of the tank, above the nozzle.

(1) If the answer to this question is 'Yes', please provide a drawing.

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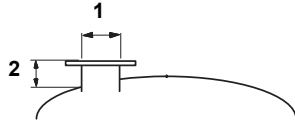
Rosemount Radar Level Transmitters

Fitting Dimensions

Please fill in the dimensions (according to selected variable unit)

Nozzle

Dimensions



1. Process Connection Size:

- | | |
|---------------------------------------|--|
| <input type="radio"/> 1-in. NPT / G | <input type="radio"/> 1 1/2-in. Tri-clamp (GWR only) |
| <input type="radio"/> 1.5-in. NPT / G | <input type="radio"/> 2-in. Tri-clamp |
| <input type="radio"/> 2-in. DN50 | <input type="radio"/> 3-in. Tri-clamp |
| <input type="radio"/> 3-in. DN80 | <input type="radio"/> 4-in. Tri-clamp |
| <input type="radio"/> 4-in. DN100 | |
| <input type="radio"/> 6-in. DN150 | |
| <input type="radio"/> 8-in. DN200 | |

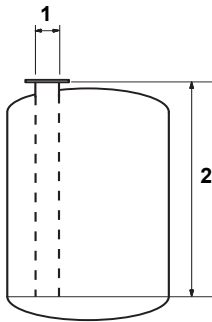
Pressure Class (check one):

- | | |
|---|-----------------------------------|
| <input type="radio"/> 150 lb. | <input type="radio"/> PN 16 |
| <input type="radio"/> 300 lb. | <input type="radio"/> PN 40 |
| <input type="radio"/> 600 lb. | <input type="radio"/> PN 64 |
| <input type="radio"/> 900 lb. (GWR only) | <input type="radio"/> Other _____ |
| <input type="radio"/> 1500 lb. (GWR only) | |

2. _____ mm m ft in

Stilling Well

Dimensions



1. Process Connection Size:

- | | |
|-----------------------------------|-----------------------------------|
| <input type="radio"/> 2-in. DN50 | <input type="radio"/> 6-in. DN150 |
| <input type="radio"/> 3-in. DN80 | <input type="radio"/> 8-in. DN200 |
| <input type="radio"/> 4-in. DN100 | |

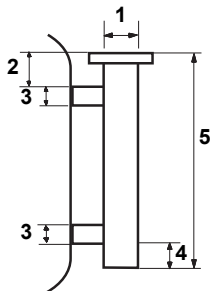
Pressure Class (check one):

- | | |
|---|-----------------------------------|
| <input type="radio"/> 150 lb. | <input type="radio"/> PN 16 |
| <input type="radio"/> 300 lb. | <input type="radio"/> PN 40 |
| <input type="radio"/> 600 lb. | <input type="radio"/> PN 64 |
| <input type="radio"/> 900 lb. (GWR only) | <input type="radio"/> Other _____ |
| <input type="radio"/> 1500 lb. (GWR only) | |

2. _____ mm m ft in

Chamber

Dimensions



1. Process Connection Size:

- | | |
|---------------------------------------|--|
| <input type="radio"/> 1-in. NPT / G | <input type="radio"/> 6-in. DN150 |
| <input type="radio"/> 1.5-in. NPT / G | <input type="radio"/> 8-in. DN200 |
| <input type="radio"/> 2-in. DN50 | <input type="radio"/> Fisher 249B (GWR only) |
| <input type="radio"/> 3-in. DN80 | <input type="radio"/> Fisher 249C (GWR only) |
| <input type="radio"/> 4-in. DN100 | <input type="radio"/> Masoneilan (GWR only) |

Pressure Class (check one):

- | | |
|---|-----------------------------------|
| <input type="radio"/> 150 lb. | <input type="radio"/> PN 16 |
| <input type="radio"/> 300 lb. | <input type="radio"/> PN 40 |
| <input type="radio"/> 600 lb. | <input type="radio"/> PN 64 |
| <input type="radio"/> 900 lb. (GWR only) | <input type="radio"/> Other _____ |
| <input type="radio"/> 1500 lb. (GWR only) | |

2. _____ mm m ft in

3. _____ mm m ft in

4. _____ mm m ft in

5. _____ mm m ft in

Mounting Nozzle has a valve? Yes No

Is an Isolation Window desired? Yes No

Chamber material:

- Carbon Steel SST Non-metal Other _____

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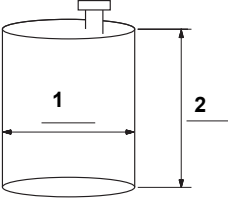
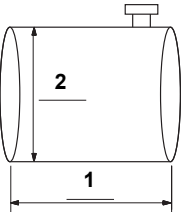
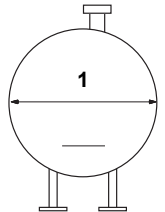
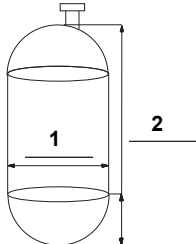
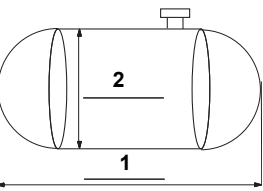
Rosemount Radar Level Transmitters

LCD Meter Configuration - Only if M1 is ordered ⁽¹⁾			
Variables:	<input type="checkbox"/> Level★	<input type="checkbox"/> Distance	<input type="checkbox"/> Volume ⁽²⁾
	<input type="checkbox"/> Interface Distance ⁽³⁾	<input type="checkbox"/> % of Range	<input type="checkbox"/> Upper Product Thickness ⁽³⁾
	<input type="checkbox"/> Upper Volume ⁽²⁾⁽⁵⁾	<input type="checkbox"/> Lower Volume ⁽²⁾⁽⁵⁾	<input type="checkbox"/> Interface Level ⁽³⁾
		<input type="checkbox"/> Analog Out	<input type="checkbox"/> Signal Strength ⁽⁴⁾

Variable units according to previous table. Carousel Toggling is used to present more than one variable.

- (1) Pre-configuration of display is not available with Rosemount 5600 Series.
- (2) For meaningful volume units, the remainder of this CDS needs to be filled out.
- (3) Available with the Rosemount 3300 and 5300 Series.
- (4) Available with the Rosemount 5400 and 5600 Series.
- (5) Only available with the Rosemount 5300 Series.

Security Information	
Write Protect:	<input type="radio"/> On <input type="radio"/> Off★

Volume Calculation (If applicable)		
Volume is calculated based on ideal shapes or by a strapping table. If volume calculation based on strapping table is needed, please provide an additional file with volume table to be imported or fill in the next page. The maximum strapping table points are 10 for the 3300, 20 for the 5400 and 5300, and 100 for the 5600.		
If your transmitter is an ideal shape, please select what ideal shape to use. Add the dimensions for the selected shape.		
<input type="checkbox"/> Vertical Cylinder Dimensions: 1. _____ 2. _____ 	<input type="checkbox"/> Horizontal Cylinder Dimensions: 1. _____ 2. _____ 	<input type="checkbox"/> Sphere Dimension: 1. _____ 
<input type="checkbox"/> Vertical Cylinder (bullet ends)⁽¹⁾ Dimensions: 1. _____ 2. _____ 	<input type="checkbox"/> Horizontal Cylinder (bullet ends)⁽¹⁾ Dimensions: 1. _____ 2. _____ 	

(1) Available for the Rosemount 3300, 5300, and 5400 Series.

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Volume Strapping Table		
<input type="checkbox"/> Pre-configuration of strapping table available only for Rosemount 5300 and 5600. Strapping table is available for the Rosemount 3300 and 5400 also, but is not included in C1 basic configuration for these transmitters. (Up to 10 points for the Rosemount 3300, 20 for the Rosemount 5300 and 5400, and 100 points for the 5600 can be used. Data may be submitted to the factory using a data spreadsheet program).		
Strap Point Number	Level	Volume
1 (Bottom of Tank)		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

C1 parameters

3300: Hardware Tag, Software Tag, Dielectric Constant/s, Primary Variable Assignment, Secondary Variable Assignment, Variable Units Level, Variable Units Volume, LRV, URV, RGH, Upper Null Zone, LCD Configuration, Volume Configuration (Ideal Tank Shapes)

5300: Hardware Tag, Software Tag, Dielectric Constant/s, Primary Variable Assignment, Secondary Variable Assignment, Variable Units Level, Variable Units Volume, LRV, URV, RGH, Upper Null Zone, LCD Configuration, Volume Configuration (Ideal Tank Shapes, or Strapping Table)

5400: Hardware Tag, Software Tag, Dielectric Constant, Turbulence Type, Foam Type, Rapid Level Changes, Variable Unit Level, Variable Unit Volume, Primary Variable Assignment, Secondary Variable Assignment, LRV, URV, UNZ, Tank Shape, Tank Bottom, RGH, LCD Configuration, Fitting Type, Pipe Diameter, Volume Configuration (Ideal Tank Shapes, or Strapping Table)

5600: Hardware Tag, Software Tag, Dielectric Constant, Rapid Level Changes, Solid Product, Foam, Turbulence, Tank Shape, Tank Bottom, RGH, Primary Variable Assignment, LRV, URV, Secondary Variable Assignment (if ordered), Secondary LRV, Secondary URV, Volume Configuration (Ideal Tank Shapes or Strapping Table)