

Level

Emerson's reliable Rosemount and Mobrey instrumentation can help you optimize all your level applications. Level devices included in this section are based on six different technologies:

Differential Pressure

Pressure transmitters for level, which operate on the principles of hydrostatic pressure, are available with a wide variety of wetted materials and process connections, and can be used on both atmospheric and pressurized vessels containing most liquids.

Non-Contacting Radar

Non-Contacting radar transmitters are used in demanding applications where vapors and turbulence are involved as well as sticky and aggressive products. They are immune to changing process conditions.

Guided Wave Radar

Guided Wave Radar (GWR) multivariable level transmitters are used in a wide range of liquid and solid applications and for interface level measurements between two liquids. They are virtually unaffected by process conditions in the vessel.

Ultrasonic

Ultrasonic level transmitters provide non-contacting measurement of level and contents by measuring the distance to the level surface. Ultrasonic transmitters are generally specified for simple level duties.

Vibrating Fork

It is good practice, and often mandatory, to fit high and low alarm level switches to vessels in addition to level transmitters. Vibrating fork level switches are high integrity devices used in overfill prevention or vessel empty detection applications, and are virtually unaffected by process conditions in the vessel.

Conductivity Probes

Steam/water interface level gauges using specialized, high performance conductivity probes in external bridles, ideal for steam plants where reliable and redundant indication of boiler water level is critical.

APPLICATION & INSTALLATION CONSIDERATIONS	GD	AD	NR	GOOD APPLICATION DEPENDENT NOT RECOMMENDED/ RELEVANT				
	Pressure	Radar	GWR	Ultra-sonic	Vibtg Fork			
Level	GD	GD	GD	GD	GD			
Interface (liquid/liquid)	AD	NR	AD	NR	NR			
Volume	GD	GD	GD	GD	NR			
Density	GD	NR	NR	NR	NR			
Mass	GD	NR	NR	NR	NR			
Open Channel Flow	NR	AD	GD	GD	NR			
Process Medium Characteristics								
Changing Density	AD	GD	GD	GD	GD			
Changing Dielectric ¹	GD	GD	GD	GD	GD			
Wide pH Variations	GD	GD	GD	GD	GD			
Pressure & Temperature Changes	GD	GD	GD	AD	GD			
Condensing Vapors	GD	GD	GD	AD	GD			
Bubbling / Boiling Surfaces	GD	GD	GD	AD	GD			
Foam	GD	AD	AD	AD	AD			
Liquid with Dielectric < 1.9	GD	GD	GD	GD	GD			
Coating Liquids	AD	GD	AD	GD	AD			
Viscous Liquids	GD	GD	AD	GD	AD			
Crystallizing Liquids	AD	GD	AD	GD	AD			
Solids, Granules, Powders	NR	AD	AD	NR	NR			
Sludges and Slurries	AD	GD	AD	GD	AD			
Tank Environment Considerations								
Top Down Connection	NR	GD	GD	GD	GD			
Bottom or Side Connections, Direct to Vessel	GD	NR	NR	NR	GD			
Stilling Wells or Bypass Connections	AD	AD	AD	AD	GD			
Device Will Be Close to Tank Wall/Disturbing Object	GD	AD	GD	AD	GD			
High Turbulence	GD	AD	GD	NR	GD			
Long and Narrow Mounting Nozzles	GD	AD	AD	NR	GD			
Angled or Slanted Surface	GD	AD	GD	AD	GD			
High Empty and Fill Rates	GD	GD	GD	GD	GD			
Internal Obstructions	GD	AD	AD	AD	GD			
Agitation	GD	AD	AD	AD	GD			
Non-metallic Vessel	GD	AD	AD	GD	GD			
Nozzle in Center of Tank	GD	NR	GD	NR	GD			
Valves or Isolation Required	GD	AD	NR	NR	NR			

Comprehensive Product Catalog

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DP Level

Rosemount 3051S Series of Instrumentation Scalable Pressure, Flow, and Level Solutions

Rosemount 3051 Pressure Transmitter

Rosemount 1151 Pressure Transmitter

Rosemount 1199 Diaphragm Seal Systems

Radar Level

Rosemount 3300 Series Guided Wave Radar Level and Interface Transmitter

Rosemount 5300 Series Two-wire Radar Level Transmitter

Rosemount 5400 Series Two-wire Radar Level Transmitter

Rosemount 5600 Series Radar Level Transmitter

Ultrasonic Level

Rosemount 3100 Series Ultrasonic Level Transmitters

Mobrey MSL600 Sludge Blanket Level Monitoring

Mobrey MSM400 Ultrasonic Sludge Density Measurement System

Mobrey MSP Ultrasonic Systems

Level Switches

Rosemount 2110 Compact Vibrating Fork Liquid Level Switch

Rosemount 2120 Vibrating Fork Liquid Level Switch

Mobrey Magnetic Float Operated Liquid Level Switches

Mobrey Compact Float Operated Liquid Level Switch

Steam/Water Level Gauges

Mobrey Hydrastep and Hydratect Water/Steam Monitoring Systems