

True level control in the water/wastewater industry



HydroRanger 200

- Continuous level ultrasonic controller for applications up to 15 m (50 ft) range
- Single or dual point model. Dual point model can monitor two vessels and reduce per point cost
- AC or DC models available
- Two discrete inputs for contact level devices to provide back-up overflow protection
- One mA input
- Modbus® RTU via RS-232 and RS-485
- Two 4 to 20 mA outputs
- Compatible with SIMATIC® PDM software for setup and diagnostics
- Field proven Sonic Intelligence® echo processing for superior reliability
- Auto False-Echo Suppression to avoid false echoes from fixed obstructions within the ultrasonic beam path
- Enhanced pump control algorithms for increased performance
- Differential control for bar screens/rake control
- Open channel flow monitor and totalizer
- Volume conversion to display volume instead of level
- Wall or panel mount versions

million
in one

control

HydroRanger® 200 is an economical, low-maintenance solution delivering control efficiency and productivity to meet today's strict environmental legislations. This ultrasonic level controller is ideal for simple level measurement and pump control or for more advanced applications such as differential level, open channel measurement and advanced pump control and alarming. HydroRanger 200 can control up to six pumps and measure water and wastewater of any consistency up to a 15 m (50 ft) depth.

Unlike contacting devices, HydroRanger 200 is immune to problems caused by suspended solids, harsh corrosives, grease or silt in the effluent, leading to reduced facility downtime. Available in either wall or panel mount versions, HydroRanger 200 gives you the right configuration and control for your level measurement needs.

www.siemens.com/level

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Technical specifications

HydroRanger 200	
Power	
	<ul style="list-style-type: none"> ■ AC version: 100 to 230 V AC ±15%, 50/60 Hz, 36 VA/17W ■ DC version: 12 to 30 V DC 20W
Performance	
Points of measurement	Single or dual point
Measurement range	0.3 to 15 m (1 to 50 ft) dependent on transducer
Accuracy	0.25% of program range* or 6 mm (0.24"), whichever is greater
Resolution	0.1% of program range* or 2 mm (0.08"), whichever is greater
Interface	
Display	100 x 40 mm (4 x 1.5") multi-field back lit LCD
Communication	<ul style="list-style-type: none"> ■ Built-in Modbus RTU or ASCII via RS-232 or RS-485 Options: <ul style="list-style-type: none"> • PROFIBUS DP • ALLEN-BRADLEY® Remote I/O • DeviceNet™
Programming	<ul style="list-style-type: none"> ■ Patented infrared hand-held programmer ■ SIMATIC PDM ■ Dolphin Plus®
Outputs	<ul style="list-style-type: none"> ■ Two 0 to 20 mA or 4 to 20 mA outputs ■ Six relays (4 Form 'A' / 2 Form 'C') ■ All relays rated 5A at 250 V AC, non-inductive
Inputs	<ul style="list-style-type: none"> ■ 2 discrete inputs for contact level device ■ mA input
Mechanical	
Enclosure	<ul style="list-style-type: none"> ■ Wall mount: Type 4X/NEMA 4X/IP65, polycarbonate ■ Panel mount: Type 3/NEMA 3/IP54, polycarbonate
Process Conditions	
Ambient temperature	-20 to 50 °C (-5 to 122 °F)
Compatible transducers	
	XRS-5, XCT-8, XCT-12, XPS-10, XPS-15, ST-H
Approvals	
	CE**, CSA _{NRTL/C} , UL Listed, FM

* Program range is defined as the empty distance to the face of the transducer plus any range extension
 Specifications are subject to change without notice.
 ALLEN-BRADLEY is a registered trademark of Rockwell Automation.
 DeviceNet is a trademark of Open DeviceNet Vendor Association.
 Modbus is a registered trademark of Schneider Electric.
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 SIMATIC PDM is a registered trademark of Siemens AG.

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Certification No. 002284

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Signal processing with field experience

Siemens level measurement instruments come with extensive field experience. Siemens Milltronics developed the signal processing technology for level instruments based on the experience of a million instruments in industrial applications.

With this experience we understand the importance of reliability, and we know what it takes to make a trusted and accurate level instrument for demanding applications. That's why our engineers invented Sonic Intelligence and Auto False-Echo Processing, and that's why these instruments carry so many patents. With Siemens Milltronics you get the experience of a million applications in one instrument.

