



PROCESS INSTRUMENTATION

# Embrace the proven. Welcome the new.

SITRANS LR100 series compact 80 GHz radar transmitters for  
hassle-free level measurement

[www.usa.siemens.com/lr100](http://www.usa.siemens.com/lr100)

**SIEMENS**

# Embrace the proven.

From a partner with over a century of innovative engineering experience and the first to bring 2-wire smart probes and W band (75 to 110 GHz) radar transmitters to the market, comes the latest advancement in radar level measurement transmitters—SITRANS LR100 series with *Bluetooth*® wireless technology. Welcome the new!



## Bluetooth conquers commissioning times

Enough with fine-tuning. With complicated installation and programming that consume your day—and your patience.

With Bluetooth wireless technology and Mobile IQ on your smartphone or tablet, SITRANS LR100 series is up and running in record time. And the transmitter's compact design and narrow beam means flexible installations in any vessels using existing openings—or even non-intrusively through your plastic vessels.

## Built-in reliability for the win

Liquid, slurry, or solids measurements? Dirty applications? These maintenance-free sensors deliver the reliable performance you need, no matter what the environment.

SITRANS LR100 series' 80 GHz operates far above your application's requirements with plenty of margin to accommodate signal killers such as condensation, turbulence, buildup, or light fluffy solids. The custom microchip technology delivers extremely high sensitivity so that even the weakest of signals is detected.

And as usual these sensors are tough! All this robust performance is wrapped in an IP68 submersible housing constructed of corrosion resistant PVDF. You can trust SITRANS LR100 series transmitters to deliver reliable readings day after day, year after year in any environment.





### Ensuring safety success

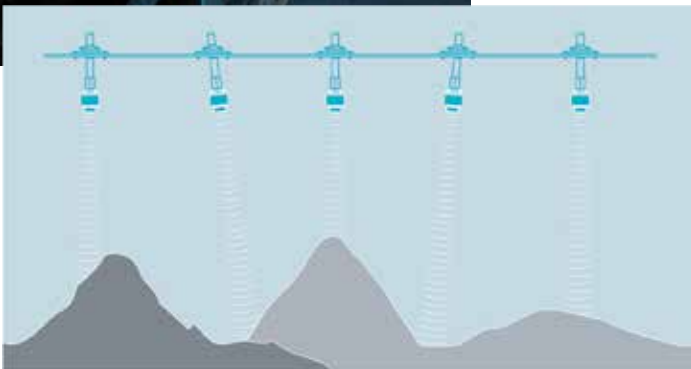
Workplace safety is everyone's job—even that of your transmitters. SITRANS LR100 series keeps your staff out of hazardous situations: no need to climb tanks or lean out over sumps, or crawl into confined spaces to maintain instruments.

So take back those hours spent dealing with fall arrest or confined space procedures and permits—by choosing devices that reduce workers' exposure to such environments.

Doubling down on safety, the transmitters' zero-meter blanking distance allows measurement right up to the sensor, avoiding costly overfilling. And 2 mm accuracy enhances operational safety through precise measurement across the full range of the application.

Siemens global support network provides experienced technical help when and where you need it, backed by leading innovation shaping how the world works.

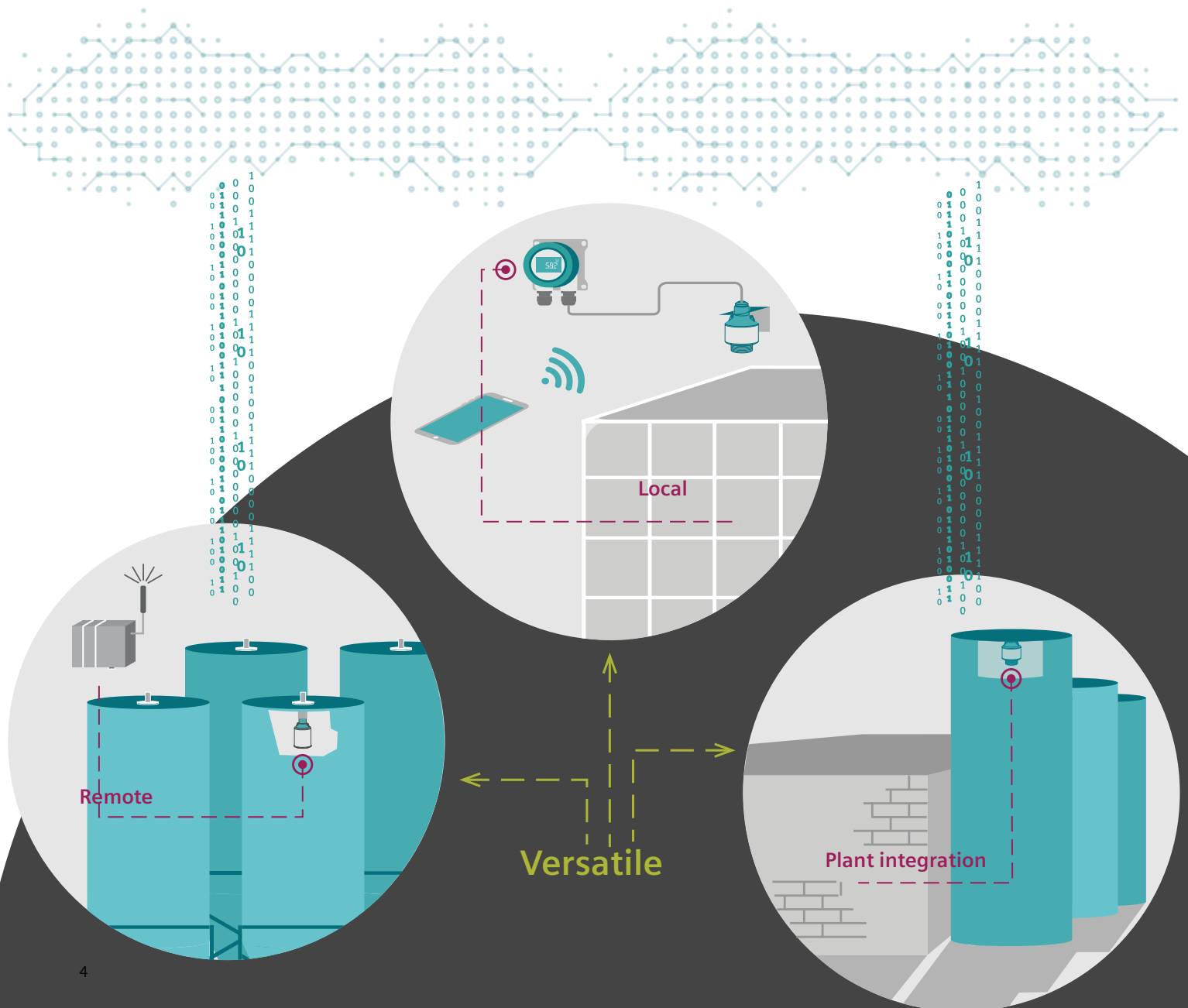
It's time to stop using manual measurement techniques and welcome the new.



# Bluetooth enabled and fully integrated

True versatility. Want fast setup using the SITRANS mobile IQ app? Want all your data fully integrated into your control system? Want a remote display combined with configuration capabilities? Need remote access to critical field data?

SITRANS LR100 delivers all that as well as just level readings. The choice is yours.





### From out-of-the-box to fully integrated

Simple setup means readings via Bluetooth directly to the SITRANS mobile IQ app on your device or connection to SITRANS RD150 remote display for the lowest cost of ownership.

In remote area? SITRANS RTU3030C is a perfect match.

Need further access and analysis? SITRANS LR100 series can also be fully integrated into your plant's control system, monitoring into your plant's control system directly or through a SITRANS level controller. Monitoring data and real-time process optimization is easily managed from the comfort of your control room.

Or integrate these digitalization-ready transmitters into Siemens MindSphere and capture what advantages intelligent automation brings.



#### SITRANS RD150 and SITRANS level controllers

SITRANS RD150 not only displays readings from your HART instruments, it can also configure and display diagnostic data. SITRANS LT500 brings advanced pump control to your SITRANS LR100 series installation.

For more information:  
[siemens.com/sitransRD150](http://siemens.com/sitransRD150)  
[siemens.com/sitransLT500](http://siemens.com/sitransLT500)



#### SIMATIC RTU3000C family

A battery-powered or powered option for remote locations:

- data collection and logging
- capture and report alarm events via cellular modem
- remote configuration and diagnostics of connected transmitters via SIMATIC PDM

For more information:  
[siemens.com/simaticRTU3030](http://siemens.com/simaticRTU3030)



#### SITRANS mobile IQ App

SITRANS mobile IQ is a Bluetooth app that provides an intuitive interface to quickly configure, set up and monitor SITRANS LR100 series (available for Android, Apple and Windows devices).

For more information:  
[siemens.com/mobileIQ](http://siemens.com/mobileIQ)



#### SIMATIC PDM (Process Device Manager)

Easy device integration and flexible tool for operation of more than 4,000 different field devices and other automation components over the life cycle of your plant.

For more information:  
[siemens.com/simaticPDM](http://siemens.com/simaticPDM)



## Added value

Information at your fingertips and accessories for mounting and installation ease—that little bit extra to make your life easier. What could be better?



### Device-specific information at your fingertips

QR code on the transmitter provides instantaneous access to key information:

- user manual
- certificates
- serial numbers
- installation drawings



### Mounting accessories

Pre-engineered mounting brackets remove the need for custom designs and allows quick and easy installation on liquids applications.

For more information:  
[siemens.com/radaraccessories](https://www.siemens.com/radaraccessories)

### Easy Aimers

Accurately positioning the transmitter at the correct angle for solids level measurement is easy with these Easy Aimers.

For more information:  
[siemens.com/radaraccessories](https://www.siemens.com/radaraccessories)

# Ready for digitalization

So, what do you want from your process instrumentation?



## Digitalization-ready devices

SITRANS LR100 series of transmitters offers connection to SCADA and control systems via HART or Modbus RTU.

Integrating critical level readings or process control data into your operation can unlock new opportunities to react to safety concerns, analyze processes and identify areas for improvement. You can also monitor level measurements or diagnostic and maintenance information from the comfort of the control room or connect to MindSphere, Siemens' open cloud solution for Industry. Siemens is dedicated to bringing connectivity to all, from small remote sites to massive processing plants.

Thanks to modern fieldbus communication, field devices can be optimally integrated into any kind of digitalization solution. An additional benefit: when devices are integrated into PCS 7 Asset Management or TIA portal, users can access diagnostic information at all times, thereby optimizing maintenance and preventing downtime. If desired, the data can be uploaded to MindSphere for comprehensive analysis.



	SITRANS LR100	SITRANS LR110	SITRANS LR120	SITRANS LR140	SITRANS LR150
	7ML530	7ML531	7ML532	7ML533	7ML5340
	Basic measurement to 8 m with cable	With communications, hazardous approvals options, and range to 15 m	With communications, longest range to 30 m, and optional submergence shield for flooding protection	Basic measurement to 8 m	With communications, hazardous approvals, HMI options, and range to 15 m
<b>Measuring principle</b>	78-82 GHz, FMCW	78-82 GHz, FMCW	78-82 GHz, FMCW	78-82 GHz, FMCW	78-82 GHz, FMCW
<b>Measuring range</b>	8 m (26 ft)	15 m (49 ft)	30 m (98 ft)	8 m (26 ft)	15 m (49 ft)
<b>Process connections</b>	Thread 1 1/2" and 1"	Thread 1 1/2" and 1"	Thread 1"	Thread 1 1/2"	Thread 1 1/2"
<b>Process pressure</b>	-1 to 3 bar	-1 to 3 bar	-1 to 3 bar	-1 to 3 bar	-1 to 3 bar
<b>Process temperature</b>	-40 to 60 °C (-40 to 140 °F)	-40 to 80 °C (-40 to 176 °F)	-40 to 80 °C (-40 to 176 °F)	-40 to 60 °C (-40 to 140 °F)	-40 to 70 °C (-40 to 158 °F)
<b>Accuracy</b>	5 mm (0.2")	2 mm (0.08")	2 mm (0.08")	5 mm (0.2")	2 mm (0.08")
<b>Beam angle</b>	8°	8°	4°	8°	8°
<b>mA/Loop, Communications</b>	2-wire, 4 to 20 mA	2-wire, 4 to 20 mA/ HART or 4-wire, Modbus	2-wire, 4 to 20 mA/ HART or 4-wire, Modbus	2-wire, 4 to 20 mA	2-wire, 4 to 20 mA/ HART
<b>Ex approvals</b>	no	Gas and dust	Gas and dust	no	Gas
<b>Optional HMI</b>	no	no	no	no	Yes, with Quick Start Wizard and diagnostic support
<b>Bluetooth</b>	yes	yes	yes	yes	yes

Measuring everything that matters:

[usa.siemens.com/pi](http://usa.siemens.com/pi)

Siemens Process Instrumentation offers best-in-class measurement and seamless integration into your automation system. We are the total solution provider for flow, level, pressure, temperature, weighing, positioners and more.

**Legal Manufacturer**

Siemens Industry, Inc.  
100 Technology Drive  
Alpharetta, GA 30005  
United States of America

Telephone: +1 (800) 365-8766  
[usa.siemens.com/pi](http://usa.siemens.com/pi)

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