



CONTROL SIGNAL

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Siemens Radar Level Transmitter for Virtually any Solid Medium

The Sitrans LR260 is the new 2-wire radar continuous level transmitter from Siemens Industry Automation division. Featuring Process Intelligence echo processing and 25 ghz pulse technology, the new device is easy to install and configure. Sitrans LR260 is particularly suitable for level measurement of virtually any solid medium, including cement powder, fly-ash, coal, gypsum, flour, grain, aggregates and plastics. The new transmitter reliably measures up to a distance of 99 feet even in environments with extreme dust load and high temperatures up to 392 degrees



Fahrenheit.

The Quick Start Wizard guides through the programming of the transmitter and has Sitrans LR260 measuring in minutes. The transmitter can be pro-

grammed locally via the intrinsically safe infrared handheld programmer, or remotely using Simatic PDM Windows based software via Hart or Profibus PA. The new graphical local user interface (LUI) displays echo profiles and diag-

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Clamp-on Ultrasonic Flowmeters from Siemens

Siemens has selected Gilson Engineering as the exclusive representative for their ultrasonic flow meters in Western Pennsylvania, Ohio, and West Virginia.

The patented Wide-Beam® technology of these transit-time ultrasonic flowmeters makes it possible to combine the advantages of the non-intrusive Clamp-On technology with high measuring accuracy and temperature independence.

These ultrasonic flowmeters are the most accurate and application friendly flowmeters available for the Oil & Gas, HVAC & Power, Water &

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Hot New Products

Low Cost Rugged Confined Space Monitor from MSA

MSA's new ALTAIR 4 Multigas Detector for LEL, CO, H2S, and O2 raises the standard for personal multigas detectors by offering a combination of features you won't find in competitive models.

The ALTAIR 4 Multigas Detector is as tough and functional as it looks, offering distinctly ribbed rubber housing for secure grip and unsurpassed durability. A high-contrast display and three large, rubberized buttons enable easy operation in low-light conditions. The ALTAIR 4 Multigas Detector is the only portable gas detector with an optional MotionAlert™ feature if a user should become disabled due to unforeseen hazards. When enabled, the MotionAlert feature will activate if the instrument



does not detect motion for 30 seconds, and is ideal for confined space entry applications. This unique gas detector function can be deactivated by the user. This unit's InstantAlert feature also

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Sitrans FUS1010 can operate in transit time, or doppler mode

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Employee Profile

Introducing Gilson Engineering's newest Outside Sales Engineer, Dave Snyder. Dave began his professional career with Gilson in 2005 as the company's first co-op engineering intern. One day, he showed up at the office and asked Chris Gilson, the President, for a summer engineering internship. Chris admired his ambition and gave him a chance. "On my first day, when I was handed a big red Gilson binder and was told to begin to learn the products, I had no idea what I was reading. Most schools do not teach theories of instrumentation." However, Dave was a fast learner and quickly became a valuable asset to the company as an applications engineer.

In May 2007, he graduated Magna Cum Laude with a degree in Mechanical Engineering from Gannon University in Erie, PA. Dave was pleased to accept a full time position with Gilson Engineering as an Applications Engineer, where he enhanced his knowledge of the products. In February 2008, Dave was promoted to Outside Sales Engineer,



covering Butler County and parts of Allegheny County in Western PA. "I take pride in learning quickly and providing honest, reliable assistance to all of my customers. For me, the best part of this job is that I am not removed from the people who actually use our products, like so many other engineers. I get to meet with them and see our work in action, so I understand what they really need."

When not working, Dave is an active volunteer firefighter with the Perysville Volunteer Fire Company, where he currently serves as 2nd Lieutenant. In August 2008, Dave will take on his next major role, as husband, when he marries his high school sweetheart, Sarah.

Gilson Engineering Offers Courses for Continuing Education

Gilson Engineering offers several courses in the field of measurement and controls. These courses will be of particular interest to Professional Engineers that require continuing education in order to maintain their licenses. Courses will last 1-1.5 hours. Attendees will be provided with a course outline and Certificate of Completion, verifying that the attendee has completed 1 CPD hour. Current course offerings are as follows:

Basics of Flow Measurement: Introduction to selection and installation of various flow meters. Also discuss Pros and Cons of each technology.
Cost: \$75.00/person

Basics of Level Measurement: Cover various technologies used for point and continuous level measurement. Discuss Pros and Cons of each technology.
Cost: \$75.00/person

Application and Installation of Electromagnetic Flow Meters in the Water and Wastewater Industry: Look at basics of magmeter theory of operation, applications, and installation issues.
Cost: \$75.00/person

Introduction to Wireless I/O: Topics include radio frequency selection, update times, integration to supervisory control system. Participants receive "Industrial Wireless Handbook."
Cost: \$90.00/person

Fundamentals of Gas Detection: Discussion of fixed gas detection in industrial and municipal environments. Topics include measurement ranges, sensor placement, calibration and maintenance requirements. Participants receive "Gas Detection Handbook".
Cost: \$100.00/person

Siemens Process Device Management Software: PDM is a universal tool for configuration, parameter assignment, commissioning, diagnostics and maintenance of intelligent field devices and automation components. For more info, go to:

<https://pcs.khe.siemens.com/index.aspx?nr=3695>

Participants receive copy of single tag version of PDM software.
Cost: \$200.00/person

A minimum of 5 attendees are required for each seminar.

Test your Tech Knowledge

Problem:

You have a thermocouple wired to a panel meter, but the indicated temperature on the display is incorrect. You have checked the configuration of the panel meter for thermocouple type, range, etc. and everything checks out. What can the problem be?

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General News, Schedule of Events

Florida

The Gilson Florida offices are now the exclusive representatives for Toshiba magnetic flowmeters

PA, OH, WV

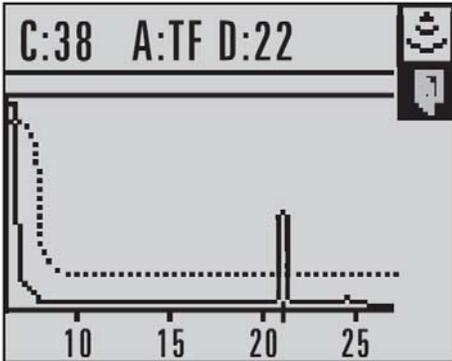
Siemens has selected Gilson Engineering as the exclusive representative for their clamp-on ultrasonic flow meter product line (formerly Controlotron) in Western PA, Ohio, and West Virginia.

www.gilsoneng.com

(LR260 radar, continued from page 1)

nostic information allowing the user to determine dynamics in the silo at a glance. Sitrans LR260 includes self-diagnostics that communicate to the local display and across the mA loop or network. For example, a timer can be preset to alert the user of a required maintenance or a scheduled quality check.

The new 'Process Intelligence' signal processing evaluates dynamic



LR260's integral display indicating echo returns

echo signals. It applies algorithms (based on field data collected from over one million level measurement applications) to raw echoes producing accurate and reliable level measurement readings. It is the signal processing behind the more advanced features such as Quick Start Wizard, diagnostic tools, and Auto False-Echo Suppression. This latter feature can automatically ignore false echoes created from internal obstructions.

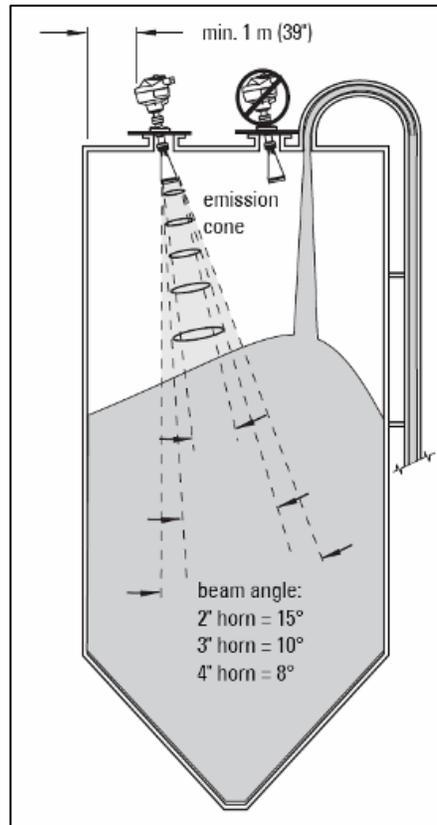
With the built-in Easy Aimer universal flange feature, the transmitter is simple to install and to orient for optimal



LR260 on asphalt tank

signal reception relative to the sloped surface of the material, improving the return signal quality. Ample room for wiring and rugged screw terminals allows for fast and easy installation. The encapsulated design protects the electronics from extreme vibration, shock and environmental elements. Optional self-cleaning purging connection and dust covers are available to prevent material build-up inside the antenna.

25 ghz technology allows for a



Easy-aimer allows sensor adjustment for optimal signal strength

space-saving small horn antenna for installation in small openings and the concentrated high frequency beam ensures interference from vessel walls is minimal.

The Sitrans LR260 provides the perfect compliment to the recently introduced LR460, 4-wire FMCW continuous level radar transmitter. There is now a less expensive option for those ranges under 100ft. If, however, you need a longer range, the 328ft capability of the LR460 will fit the bill.

(MSA Altair 4, Continued from page 1) allows users to manually alert others to a potentially hazardous situation.

The rubber over-molded housing is rated IP67 against dust and water ingress, and passes a 10+ foot drop test. This unit is equipped with a 95+ dB audible alarm and ultra-bright alarm LEDs on both its top and bottom for maximum visibility. Vibrating alarm and data logging are standard features in this very



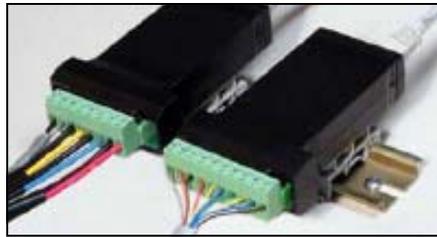
Galaxy auto-calibration and charging system

competitively-priced unit. The unit has a two year warranty.

MSA's ALTAIR 4 Multigas Detector is Galaxy® System compatible for calibration and record keeping; a QuickCheck™ Test Station for fast, easy bump testing is also available. Logged data may be retrieved from the Altair 4 with MSA-Link Windows based software.

New Dual-Line 6-Digit Process Meter

Precision Digital has introduced a new competitively priced 1/8 DIN panel meter with 6 digit dual-line Sunlight Readable LED display. The ProVu series model PD6000 inputs are 20mA, 5VDC and 10VDC. The ProVu meter provides the operator with a more precise and informative view of their process for better overall control. The large main display of 0.6" is complemented by a second line of display of 0.46" which can be configured to read user defined engineering units, custom legends, set points, maximum/minimum PV values, and more. The second display also makes setting up and programming of ProVu more intuitive and user-friendly.



Expansion modules for I/O and communications

The ProVu has expandable external output modules. These modules allow you to add four more relays (for a total of eight), add digital I/O, or add RS-232 or RS-422/485 serial communications at anytime. ProVu comes standard with 24 VDC @ 200mA transmitter power supply. 5VDC and 10VDC transmitter supplies can also be selected.

The input can be easily scaled



Three function keys on the front panel can be configured to acknowledge alarms, reset max/min, disable/enable output relays, and hold outputs. These events can also be triggered remotely using ProVu's digital I/O module. This capability could provide a remote means for disabling all output relays, for example (interlock, safety).

The ProVu has the following options that are mounted internal to the meter: 2 relays, 4 relays and isolated 4-20mA output. The relays and 4-20mA output are available together. The relays have numerous functions including multiple alarm configurations and PUMP ALTERNATION for up to eight pumps (using external 4 relay module). The relays are Form C (SPDT) relays with fail-safe set up configurations.

using front panel buttons, using ProVu's horizontal round tank setup, 32 point linearizer or Weirs and Flumes math functions for open channel flow.

The ProVu meter is tough. The front panel is UV resistant and rated for NEMA 4X/IP65. The ProVu has a wide ambient temperature range of -40 to 65°C and is cULUS Listed and CE marked. The base model is priced at \$289.

Liquid Level Gauges and Auto-pumps from PROMAG

Gilson Engineering is pleased to announce its new line of Magnetic Liquid Level Gauges from PROMAG Ltd.

PROMAG has been manufacturing magnetic liquid level gauges and related accessories since 1989. PROMAG has experience in a wide array of low fluid specific gravity and high-pressure services, but can meet the needs of any customer that needs simple, lower cost solutions.



Liquid level gauge on heater

The PM26, PROMAG's primary magnetic liquid level gauge model, is fabricated using full-penetration welds performed by certified welders. Additionally, PROMAG is an ASME U-Stamp certified welding facility that is capable of fabricating bridles, pressure vessels, and various piping spools.

PROMAG has a large selection of accessories for the PM26. These include two types of liquid level transmitter technologies, two models of electric switches for light and heavy duty, and pneumatic switches that may be constructed of stainless steel and aluminum or all stainless steel. The PM26 may also be supplied with insulation blankets for thermal retention, personnel protection,

(Continued on page 5)

(Promag, continued from page 4)

and cryogenic service. PROMAG can also provide magnetic traps to prevent ferrous particles from reaching the magnetic float, and heat tracing for freeze protection or temperature maintenance within the gauge.

Each PROMAG Magnetic Liquid Level Gauge is custom built to tailor to the customer's individual needs, with pressure ratings up to ANSI CLASS 4500 special class, and temperature ratings up to 1300 degrees F. The units also have a unique fluorescent indicator that can be seen from 50 yards away to eliminate unnecessary trips to check tank levels, and their rotary flag indicator.

Specific Industry Applications include boiler feedwater and condensate pots in Power Plants, Acids, De-Ionized Water, Ammonia, Caustics, and Sodium Hypochlorite. Refinery applications include Benzene, Toluene, Kerosene, Gasoline, Propane and Solvents.

PROMAG also manufactures a line of pressure pumps. The pump operates totally from pneumatic propulsion such as steam, compressed air or gas and therefore requires no electrical installation. There are no moving parts to wear out and no seals to leak. Local indication of the volume of fluid in the tank and the ultimate control of that fluid is all accomplished with the use of Magnetic Field Coupling. Because of this unique design the users PUMP MAINTENANCE COST will be reduced essentially to ZERO. Costly parts inventory typically needed to maintain conventional pumps is ELIMINATED as well. Also, the SAFETY aspect of this AUTO-PUMP



Pneumatically operated Auto-pump with site gauge

cannot be overlooked. The possibility of leaks are eliminated because there are no moving parts such as rotating shafts or links and levers that will require seals.

(Controlotron, continued from page 1)

Wastewater, Aerospace and other industries. The instruments can provide information on flow, temperature, liquid quality, and line pressure information - all from outside the pipe using attachable sensors. These meters can measure liquid on pipe sizes 1/4" - 360" in diameter, and gas pipes, 1" - 60".

Sitrans F US Inline

Ultrasonic flowmeters provide highly accurate measurement of electrically conductive and non-conductive liquids while minimizing installation time and maintenance expenses. In addition, the measurement results are independent of conductivity, viscosity, temperature, density and pressure. The flowmeters deliver great accuracy, simple operation as well as rugged reliability for a wide range of process conditions including district heating, water and treated wastewater and petrochemical processes.

Industrial

Ultrasonic flowmeters suitable for industrial applications can measure both conductive and non-conductive liquids including different types of oils and liquid gases. Main applications



Sono-3100 sensor for industrial applications, including petrochemical

also include the measurement of volume flow within the general, petrochemical and chemical industries, power engineering and water and waste water.

Utility

Ultrasonic flowmeters for the utility industry can be used for the measurement of water flow or water flow in heat meter systems in district heating networks, power plants and chilled water plants. They also offer the possibility for energy calculation in district heating applications, chilled water applications and combined cooling/heating applications. The flowmeters can be delivered with a custody transfer approval.



Sitrans FUE1010 clamp-on energy flowmeter for HVAC applications

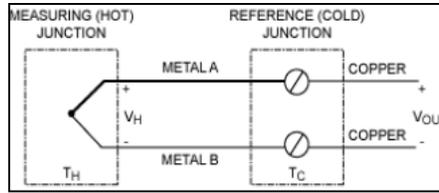
Inline Retrofit

The inline ultrasonic retrofit solution from Siemens can be utilized in numerous applications. Both a direct powered (110/230 V AC or 24 V AC/DC) option and a battery powered option (suitable for irrigation and water supply management) are available and can be retrofitted onto existing pipelines. Retrofitting is generally used for large pipe sizes, and mounting can be on various pipe materials such as steel, concrete, plastic etc. Retrofit Kits are a cost-effective and easy to install solution because all components needed for the installation are included in the package. The construction is solid with no moving parts or obstructions that would cause additional pressure drop.

(Tech knowledge, continued from p. 2)

If the extension wire connecting the thermocouple to the panel meter is copper signal wire, you will likely see an error.

Most panel meters that accept thermocouples have the ability to measure the temperature of their own terminal strip, thereby performing internal cold junction compensation. This is only valid if you use thermocouple wire, or extension grade thermocouple wire to connect the sensor to the panel meter. If copper wire is used as extension wire between the sensor and panel meter, the temperature of that junction must be



junction compensation, few panel meters have this option. If you need a long distance of thermocouple extension wire, you may consider using a 2-wire temperature transmitter at the sensor, and send a 4-20 ma signal across the less expensive copper wire.

Remote terminal block without external cold junction compensation

known so that the display can compensate for the voltage created by this TC-Copper junction.

Although many recorders, PLCs and other multi-channel I/O devices have the ability for external cold



GILSON ENGINEERING SALES, INC. LOCATIONS:

PITTSBURGH, PA

535 Rochester Road
Pittsburgh, PA 15237-1747
412-369-0100 OR 800-860-4499
FAX 412-366-1728

COLUMBUS, OH

2697 Sawbury Boulevard
Columbus, OH 43235-4582
800-860-4499
FAX 614-889-6038

CLEVELAND, OH

2776 Berkshire Rd
Cleveland Heights, OH 44106
440-543-0300
FAX 440-543-1230

CHARLESTON, WV

505 Capitol Street
Charleston, WV 25301-1221
304-342-0012
FAX 304-342-0085

TOLEDO, OH

26953 Mingo Drive
Perrysburg, OH 43551-1071
419-874-1178 OR 800-860-4499
FAX 419-874-5333

ORLANDO, FL

144 Harston Court
Heathrow, FL 32746
800-860-4499
FAX 407-444-0335

TAMPA, FL

828 Walsingham Way
Valrico, FL 33594-4013
800-860-4499
FAX 813-655-3513

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