

Flotation cell control with ultrasonic technology

million
in one

SITRANS Probe LU

- Reliable continuous ultrasonic level monitoring
- Low maintenance
- Unbeatable accuracy of 0.15%
- Field proven Sonic Intelligence® echo processing for superior reliability
- Digital communications — HART® or PROFIBUS PA
- FM and CSA approved for hazardous environments

Float assembly

- Reliable measurement of the liquid level through a layer of foam
- Stainless steel mechanical float
- Complete with mounting plate

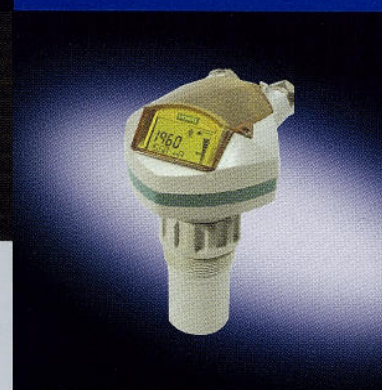
solution

Reliable measurement of flotation cells in the mining industry is critical to ensure proper mixing of reagents in the frothing foam to optimize the right mixture for extracting minerals. Control of these levels directly saves money.

Ensure accurate measurement of your flotation cells with the field proven Siemens flotation cell solution. Two SITRANS Probe LU ultrasonic level transmitters are bundled with a stainless steel float assembly to provide continuous measurement: one Sitrans Probe LU measures the level of the froth and the second measures the level of the pulp with the assistance of the float at the interface of the froth and the pulp. The differential level between the two provides an accurate and reliable measurement of the froth thickness.

SITRANS Probe LU flotation cell solution – a million in one.

www.siemens.com/level



SIEMENS

Technical Specifications

SITRANS Probe LU	
Power	
HART® version	<ul style="list-style-type: none"> ■ Nominal 24 V DC with max. 550 Ω loop resistance ■ Maximum 30 V DC ■ 4 to 20 mA
PROFIBUS PA version	Bus powered, as per IEC 61158-2; 12, 13, 15 or 20 mA depending on programming (General Purpose or Intrinsically Safe version)
Performance	
Measurement range	6 m (20 ft) model: 0.25 to 6 m (10" to 20 ft) 12 m (40 ft) model: 0.25 to 12 m (10" to 40 ft)
Accuracy	± the greater of 0.15% of range or 6 mm (0.24")
Repeatability/Resolution	≤ 3 mm (0.12")
Frequency	54 KHz
Update time	HART version: ≤ 5 seconds at 4 mA PROFIBUS PA version: ≤ 4 seconds at 15 mA current loop
Interface	
Display	Built-in alpha-numeric display - visible through transparent lid
Communication	<ul style="list-style-type: none"> ■ HART ■ PROFIBUS PA
Programming	<ul style="list-style-type: none"> ■ Patented infrared handheld programmer ■ SIMATIC® PDM
Outputs	HART version: 4 to 20 mA range, ± 0.02 mA accuracy PROFIBUS PA version: Profile 3, Class B
Mechanical	
Enclosure	<ul style="list-style-type: none"> ■ PBT (polybutylene terephthalate) body ■ PEI (polyether imide) lid ■ Type 4X/NEMA 4X, Type 6/NEMA 6/IP67/IP68 enclosure ■ Cable inlet: 2 x M20 x 1.5 conduit gland or 2 x 1/2" NPT thread
Process connection	<ul style="list-style-type: none"> ■ Threaded connection: 2" NPT, BSP or G/PF ■ Flange connection: 3" (80 mm) universal flange ■ Other connection: FMS 200 mounting bracket
Sensor	Transducer options: ETFE (ethylene tetrafluoroethylene) or PVDF (polyvinylidene fluoride)
Process conditions	
Ambient temperature	-40 to 80 °C (-40 to 176 °F)
Process temperature	-40 to 85 °C (-40 to 180 °F)
Pressure (vessel)	0.5 bar (7.25 psi g)
Approvals	
	CE, CSA _{USIC} , FM, ATEX HART version: Lloyd's Register of Shipping, ABS Type approval

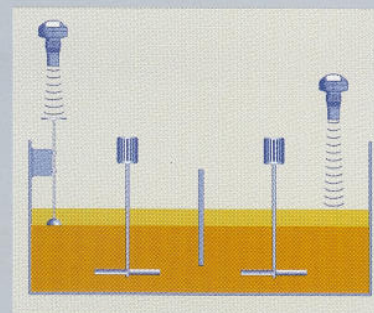
To order your flotation cell solution contact your local Siemens representative.

Sonic Intelligence is a registered trademark of Siemens Milltronics Process Instruments Inc.
SITRANS is a registered trademark of Siemens AG.
HART is a registered trademark of HART Communication Foundation.
Specifications are subject to change without notice.
© Siemens Milltronics Process Instruments Inc. 2005.



www.siemens.com/level

SITRANS Probe LU sets the new standard for ultrasonic level measurement. It's a 2-wire, loop powered ultrasonic transmitter for level/volume/flow monitoring of liquids and slurries in storage vessels, filter beds, flotations cells, and in open channels. Its unbeatable accuracy of 0.15% is due to enhancements in the Sonic Intelligence echo processing software that compensate for echo attenuation and noise floor increases. It also features Auto False-Echo Suppression for fixed obstruction avoidance. Both features result in superior accuracy and reliability, making it ideal for flotation cell control.



Two SITRANS Probe LU transmitters with a stainless steel float assembly measure the froth thickness: one unit measures the level of the froth and the second measures the level of the pulp with the assistance of the float at the interface of the froth and the pulp.

Million in one

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 why these instruments carry so many patents. With Siemens Milltronics you get the experience of a million applications in one instrument.

7ML1996-5FH03

Printed in Canada