

# Level Measurement

## Continuous level measurement – Ultrasonic controllers

### SITRANS LUT400 series

Selection and Ordering data	Article No.	Selection and Ordering data	Order code
<b>SITRANS LUT420 and LUT430</b> Compact ultrasonic level controllers for continuous short to long-range level or volume measurement of liquids, slurries, and solids. Both units include basic relay functions for pumps, alarms, and other controls, plus onboard data logging. LUT430 offers additional advanced pump control and alarm functionality, open channel flow monitoring, and basic flow data logging capability. Functionality varies by model.	<b>7ML5050-</b> 	<b>Further designs</b> Please add <b>*-Z*</b> to Article No. and specify Order code(s).	
<b>Model</b> SITRANS LUT420 - Level controller <b>A</b> SITRANS LUT430 - Level, Pump & Flow controller <b>B</b>		Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000 <b>C11</b> Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]; Measuring-point number/identification (max. 27 characters) specify in plain text <b>Y15</b> Namur NE43 failsafe setting - device preset to failsafe < 3.6 mA <b>N07</b>	
<b>Enclosure display options</b> With display <b>A</b> With remote panel mount display [Includes panel mount cable extension, 2.5 m (8.2 ft)] <b>B</b> No display (blank lid provided) <b>C</b> Note: Enclosure includes back-plate for wall and pipe mounting, and an integrated clip for DIN-rail mounting. DIN-rail mounting for standard TS35 x 7.5 and TS35 x 15 mm DIN-rail to IEC 60715, EN 60715		<b>Operating Instructions</b> English <b>7ML1998-5MV01</b> French <b>7ML1998-5MV11</b> Spanish <b>7ML1998-5MV21</b> German <b>7ML1998-5MV31</b> Italian <b>7ML1998-5MV51</b> Multi-language compact operating instructions Note: The operating instructions should be ordered as a separate line item on the order. <b>7ML1998-5XU81</b>	Article No.
<b>Input voltage</b> 100 ... 230 V AC ± 15 % <b>1</b> 10 ... 32 V DC <b>2</b>		<b>Communications Manual</b> English <b>7ML1998-5NE01</b> French <b>7ML1998-5NE11</b> Spanish <b>7ML1998-5NE21</b> German <b>7ML1998-5NE31</b> Italian <b>7ML1998-5NE51</b> Note: The communications manual should be ordered as a separate line item on the order.	
<b>Cable inlet</b> 3 cable inlets, cable glands not supplied <b>1</b> 3 cable inlets, 3 M20 plastic cable glands supplied <b>2</b>		<b>Accessories</b> Tag, stainless steel, 12 x 45 mm (0.47 x 1.77 inch), one text line, suitable for enclosure <b>7ML1930-1AC</b> TS-3 Temperature Sensor - see TS-3 in catalog <b>7ML1813</b> Panel mount cable extension, 2.5 m (8.2 ft) <b>7ML1930-1GF</b> Qty 3 cable glands and retaining nuts <b>7ML1930-1GB</b> USB cable, 2 m (6.56 ft) - Standard USB-A to USB-mini B <b>7ML1930-1GD</b> HART modem/RS-232 (for use with a PC and SIMATIC PDM) <b>7MF4997-1DA</b> Hart modem/USB (for use with a PC and SIMATIC PDM) <b>7MF4997-1DB</b> Sunshield, 304 stainless steel <b>7ML1930-1GE</b> SITRANS RD100 Remote display - see Chapter 7 SITRANS RD200 Remote display - see Chapter 7 SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7 <b>7ML5750-1AA00-0</b>	
<b>Number of measurement points</b> Single point system (includes one transducer input, one mA output, and one external temperature sensor input) <b>1</b>		<b>Spare parts</b> Panel mount retrofit kit (convert standard unit with display to panel mount version) <b>7ML1830-1PA</b> Terminal block replacement kit (5 piece kit with one of each removable terminal) <b>7ML1830-1PB</b> Wall/Pipe mount plate <b>7ML1830-1PC</b> Enclosure (include blank label) <b>7ML1830-1PD</b> SITRANS LUT400 Lid (with Display) <b>7ML1830-1PE</b> SITRANS LUT400 Lid (blank) <b>7ML1830-1PF</b> Fuse - AC (0.25 A, 250 V, Slow Blow) <b>7ML1830-1PG</b> Fuse - DC (1.6 A, 125 V, Slow Blow) <b>7ML1830-1PH</b> Battery BR2032 <b>7ML1830-1PJ</b> Panel mount gasket and fastener kit <b>7ML1830-1PK</b> DIN-rail clip <b>7ML1830-1PL</b>	
<b>Communications and I/O</b> HART, 2 discrete inputs, 3 relays <b>D</b>			
<b>Approvals</b> General purpose CE, FM, CSA <sub>US/IC</sub> , UL, C-TICK <b>A</b> Hazardous locations CSA Class I, II, III, Div. 2 (Groups A, B, C, D, F, G) <b>C</b>			
We can offer shorter delivery times for configurations designated with the Quick Ship Symbol . For details see page 9/5 in the appendix.			

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### SITRANS LUT400 series

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<b>SITRANS LUT440</b> The SITRANS LUT440 is the most accurate and featured model in the LUT400 series. It includes high accuracy open channel monitoring, relay functions for external samplers, totalizers, alarms, and enhanced data logging, as well as all pump and control functions available with other models in the LUT400 series.	<b>7ML5050-</b> 	<b>Further designs</b> Please add <b>*-Z*</b> to Article No. and specify Order code(s).	
<b>Model</b> SITRANS LUT440 - High accuracy Open Channel Monitor <sup>1)</sup>	<b>C</b>	Manufacturer's test certificate M to DIN 55350, Part 18 and to ISO 9000	<b>C11</b>
<b>Enclosure display options</b> With display With remote panel mount display (Includes panel mount cable extension, 2.5 m (8.2 ft)) No display (blank lid provided) Note: Enclosure includes back-plate for wall and pipe mounting, and an integrated clip for DIN-rail mounting. DIN-rail mounting for standard TS35 x 7.5 and TS35 x 15 mm DIN-rail to IEC 60715, EN 60715	<b>A</b> <b>B</b> <b>C</b>	Stainless steel tag [69 x 50 mm (2.71 x 1.97 inch)]; Measuring-point number/identification (max. 27 characters) specify in plain text	<b>Y15</b>
<b>Input voltage</b> 100 ... 230 V AC ± 15 % 10 ... 32 V DC	<b>1</b> <b>2</b>	Namur NE43 failsafe setting - device preset to failsafe < 3.6 mA	<b>N07</b>
<b>Cable inlet</b> 3 cable inlets, cable glands not supplied 3 cable inlets, 3 M20 plastic cable glands supplied	<b>1</b> <b>2</b>	<b>Operating Instructions</b> English French Spanish German Italian Note: The operating instructions should be ordered as a separate line item on the order.	Article No. <b>7ML1998-5MV01</b> <b>7ML1998-5MV11</b> <b>7ML1998-5MV21</b> <b>7ML1998-5MV31</b> <b>7ML1998-5MV51</b>
<b>Number of measurement points</b> Single point system (includes one transducer input, one mA output, and one external temperature sensor input)	<b>1</b>	<b>Communications Manual</b> English French Spanish German Italian Note: The communications manual should be ordered as a separate line item on the order.	<b>7ML1998-5NE01</b> <b>7ML1998-5NE11</b> <b>7ML1998-5NE21</b> <b>7ML1998-5NE31</b> <b>7ML1998-5NE51</b>
<b>Communications and I/O</b> HART, 2 discrete inputs, 3 relays	<b>D</b>	<b>Accessories</b> Tag, stainless steel, 12 x 45 mm (0.47 x 1.77 inch), one text line, suitable for enclosure TS-3 Temperature Sensor - see TS-3 in catalog Panel mount cable extension 2.5 m (8.2 ft) Qty 3 cable glands and retaining nuts USB cable 2 m (6.56 ft) - Standard USB-A to USB-mini B HART modem/RS-232 (for use with a PC and SIMATIC PDM) HART modem/USB (for use with PC and SIMATIC PDM) Sunshield, 304 stainless steel SITRANS RD100 Remote display - see Chapter 7 SITRANS RD200 Remote display - see Chapter 7 SITRANS RD500 web, datalogging, alarming, ethernet, and modem support for instrumentation - see Chapter 7	<b>7ML1930-1AC</b> <b>7ML1813</b> <b>7ML1930-1GF</b> <b>7ML1930-1GB</b> <b>7ML1930-1GD</b> <b>7MF4997-1DA</b> <b>7MF4997-1DB</b> <b>7ML1930-1GE</b> <b>7ML5750-1AA00-0</b>
<b>Approvals</b> General purpose CE, FM, CSA <sub>US/CA</sub> , UL, C-TICK Hazardous locations CSA Class I, II, III, Div. 2, (Groups A, B, C, D, F, G)	<b>A</b> <b>C</b>	<b>Spare parts</b> Panel mount retrofit kit (convert standard unit with display to panel mount version) Terminal block replacement kit (5 piece kit with one of each removable terminal) Wall/Pipe mount plate Enclosure (include blank label) SITRANS LUT400 Lid (with Display) SITRANS LUT400 Lid (blank) Fuse - AC (0.25 A, 250 V, Slow Blow) Fuse - DC (1.6 A, 125 V, Slow Blow) Battery BR2032 Panel mount gasket and fastener kit DIN-rail clip	<b>7ML1830-1PA</b> <b>7ML1830-1PB</b> <b>7ML1830-1PC</b> <b>7ML1830-1PD</b> <b>7ML1830-1PE</b> <b>7ML1830-1PF</b> <b>7ML1830-1PG</b> <b>7ML1830-1PH</b> <b>7ML1830-1PJ</b> <b>7ML1830-1PK</b> <b>7ML1830-1PL</b>

<sup>1)</sup> Compatible with all EchoMax Transducers. High accuracy OCM performance with the use of an XRS-5 transducer and TS-3 temperature sensor (each sold separately).

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