

LXT 330 & LXT 380

Universal Liquid Transmitters



- HART Communication Protocol
- Single or Dual Sensors per Transmitter
- Intelligent Pre-Calibrated Digital Sensors
- 4-20 mA and Modbus-RTU standard
- Back-lit Display on AC & DC Units
- Microprocessor-based electronics



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LXT 330



LXT 380

LXT 330 Universal Transmitter

The LXT 330 liquid transmitter is a single or dual channel, universal, multi-parameter transmitter, designed for continuous online liquid measurements. It is paired with SP3 smart sensors and is intended for use in non-hazardous, industrial process water application. The SP3 sensor platform covers a wide range of liquid analytical measurements, such as: pH, ORP, specific ion (pION), dissolved oxygen, free chlorine, total chlorine, conductivity, resistivity and turbidity. The LXT 330 can be used with any SP3 smart sensors without additional reconfiguration. The universal transmitter and smart sensor loop philosophy remove the need for stock of multiple instrument types. The process parameter, sensor details, serial number and calibration history are stored in the sensor's main memory, facilitated by two-way digital communication between the sensors and transmitter. The LXT 330 universal transmitter allows for up to two SP3 sensors per transmitter (contact factory for available combinations)



Configuration Builder

LXT 330	A	B	C	D	E
1st Channel	1 SP3 Digital Sensor (pH, ORP, pION, DO*, ppb DO, Conductivity, Resistivity, TSS, ODO)				
	4 Internal Pre-Amp, Digital to SGTC Conductivity/Resistivity (High Temperature)				
	2nd Channel	0 No Second Channel			
		1 SP3 Digital Sensor (pH, ORP, pION, DO*, ppb DO, Conductivity, Resistivity, TSS, ODO)			
		Power & Relays	00 Loop 2 Wire - Single Channel Only (not available for TSS & ODO sensors)		
			10 DC Power, No Relays		
			11 DC Power, (3) Relays		
			20 110/220 VAC Power, No Relays		
			21 110/220 VAC Power, (3) Relays		
			Outputs	0 4-20 mA and Modbus**	
				1 HART	
				2 2 x 4-20 mA and Modbus**	
				3 2 x 4-20 mA and HART	
				Mounting	00 No Mounting Hardware
					01 Universal Mounting Hardware
					02 Panel Mounting Hardware
					03 Handrail Mounting Hardware
					04 Polyester Sun-Shield with Pole Mount
					05 Polyester Sun-Shield with Rail Mount

* Galvanic DO must be single channel due to solution ground interference

** Modbus - AC/DC version only

LXT 380 Universal Transmitter

The LXT 380 transmitter is a single or dual channel, intelligent, multi-parameter transmitter designed for the online continuous measurement of pH, ORP, specific ion (pION), dissolved oxygen, free chlorine, total chlorine, conductivity and resistivity. It digitally communicates with the SP3X digital sensor, automatically configuring the transmitter's menus and display screens to the measured parameter. The standard configuration has a 4-20 mA and a serial communication port with MODBUS RTU output. The LXT 380 can be either loop powered or DC powered. An alarm relay option is only available in the DC powered transmitters. The loop powered transmitters are available in FM, ATEX and IECEx certifications.



Configuration Builder

LXT 380	A	B	C	D	E	F
1st Channel	1	SP3X Digital Sensor, pH, ORP, pION, DO*, ppb DO, Conductivity, Resistivity, Free Chlorine, Chlorine Dioxide				
	2nd Channel	0	No Second Channel			
		1	SP3X Digital Sensor, pH, ORP, pION, DO*, ppb DO, Conductivity, Resistivity, Free Chlorine, Chlorine Dioxide			
		Power	0	(LOOP) 2 Wire - Single Channel Only (not available for TSS & ODO sensors)		
			1	DC Power		
		Relays	0	No Relay		
			1	3 Relays - DC Power Only		
			Outputs	0	4-20 mA & MODBUS**	
				1	HART®	
				2	2 x 4-20 mA & MODBUS**	
				3	2 x 4-20 mA & HART®	
			Approvals	00	SS316 No Approval	
				01	SS316 FM Approval	
				02	SS316 ATEX/IECEx Approval - Single Channel	
				03	SS316 ATEX/IECEx Approval - Dual Channel	

* Galvanic DO must be single channel due to solution ground interference

** Modbus - AC/DC version only



	LXT 330	LXT 380
Input Sensors	SP3 Smart Sensor	SP3 or SP3X Smart Sensor
Input Ranges	pH: -1.00 to 15.00 pH ORP: -1,500 mV to 1,500 mV pION: 000.1 to 999.9, Auto Ranging: ppb, ppm, ppt DO: 000.1 to 999.9, Auto Ranging: ppb, ppm %SAT, mg/L Conductivity: 0.055 to 2.00, Auto Ranging: μ S, mS, S Resistivity: 0.001 to 20.00 meg-ohms Turbidity: 000.0 to 4,000, Auto Ranging: NTU, FNU, mg/L, ppm, %Solids	
Temperature	-22° to 284°F (-30° to 140°C)	-4° to 185°F (-20° to 85°C)
Accuracy	pH: 0.02 pH ORP: \pm 1 mV pION: Contact factory for pION specification sheet DO: 2% of calibrated range Conductivity: 2% of calibrated range Resistivity: 2% of calibrated range Turbidity: 4% of calibrated range Temperature: \pm 0.54°F (0.3°C)	
Enclosure	Polycarbonate, IP65, Weather-proof 5.7" L x 5.7" W x 3.5" D (14.48 x 14.48 x 8.89 cm) 1.6 lbs (0.75 kg)	Electro Polished SS316, Type 4X, IP66, Weather-proof 5.5" L x 5.1" W x 5" D (13.97 x 12.95 x 12.7 cm) 5.5 lbs (2.5 kg)
Interface Ports	1/2" Glands, 3 nos.	1/2" FNPT, 3 nos.
Environmental Conditions	Ambient Temp: DC & Loop: -4° to 158°F (-20° to 70°C) AC: -4° to 140°F (-20° to 60°C) Storage Temp: -22° to 185°F (-30° to 85°C) Relative Humidity: 0 to 80% non-condensing	Ambient Temp: -4° to 131°F (-20° to 55°C) Storage Temp: -22° to 185°F (-30° to 85°C) Relative Humidity: 0 to 80% non-condensing
Display	2.75" x 1.5" (264 x 144 px) LCD, Black/Grey background on loop powered units Blue/White background LED back-lit on AC and 4-wired DC units	2.0" x 1.1" (192 x 105.6 px) LCD, Black/Grey background on loop powered units Blue/White background LED back-lit on 4-wire DC units
Menu Selection	Soft Key Buttons	Magnetic Pen
Input Power	Loop Powered, 24 VDC, 600 ohm max load (18-36 VDC @ 35 mW minimum) 4-wired 24 VDC (18-36 VDC @ 250 mW minimum) AC (110-250 VAC, 50/60 Hz)	Loop Powered, 24 VDC, 600 ohm max load (18-36 VDC @ 35 mW minimum) 4-wired 24 VDC (18-36 VDC @ 250 mW minimum) AC Not Available
Signal Outputs	4-20 mA, Fault Condition: 3.5 mA, 22mA or none MODBUS-RTU HART® (optional) Alarm Relays (optional): 3 x SPDT Form C, 250 VAC, 3 AMP resistive maximum relays (user configurable as Hi/Lo or Fault Alarms)	



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