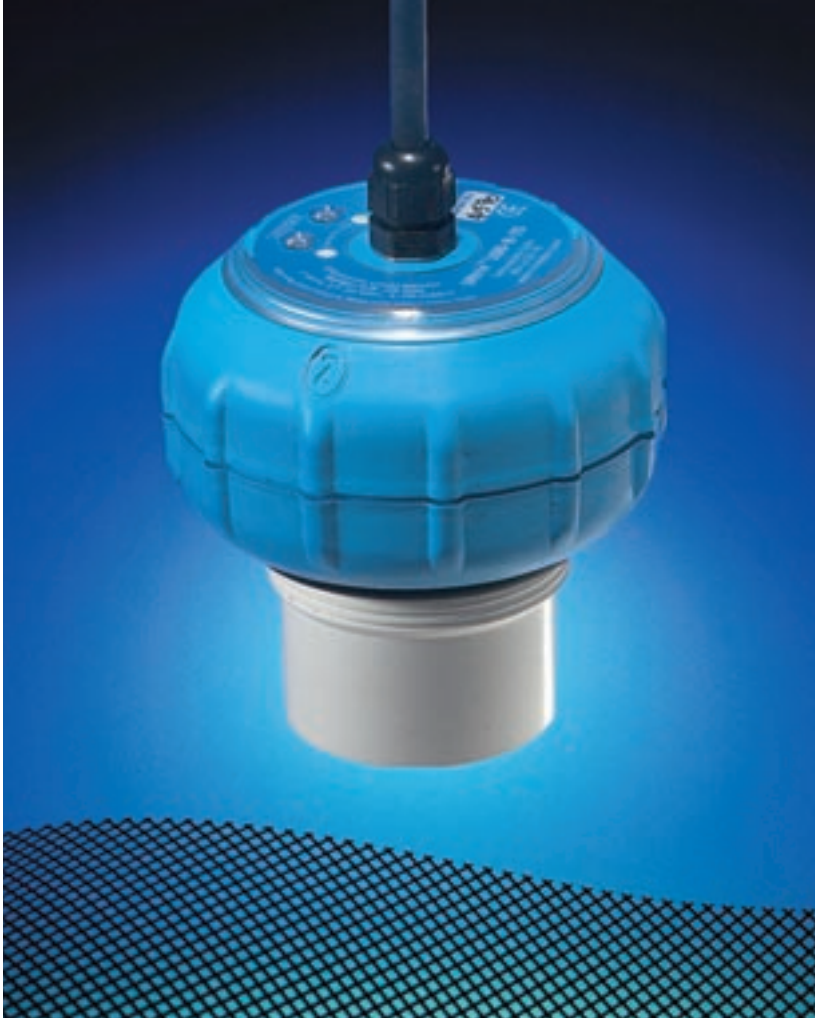

ULTRASONIC LEVEL TRANSDUCER



ULTRIX™ 100

FEATURES

- Loop powered, two-wire 4-20 mA output
- Choice of ranges up to: 10, 17, 26, 33 or 50 feet
- Intrinsically safe versions
- Chemically resistant Teflon® nose section
- NEMA 6 submersible, IP68
- CE certified

APPLICATIONS

- Liquid and solid level sensing
- Open and closed tanks
- Filter beds
- Wet wells/lift stations
- Bulk storage tanks
- Waste sumps
- Flumes and weirs

Contegra's ULTRIX™ 100 is a two-wire ultrasonic level transmitter that provides non-contact measurement suitable for a wide range of media such as liquids, pastes, slurries, and solids. The ULTRIX transmits short ultrasonic pulses toward the sensed media. The time taken for the echoes to return to the sensor is calculated and converted into a 4-20 mADC output that is proportional to the measured distance. The ULTRIX 100 sensors are self-contained, easy to install, accurate, reliable, and maintenance free. Thousands of these sensors have been applied in a broad range of applications.

The ULTRIX 100 transmitters are unique; they can be directly suspended from their signal cable and are NEMA 6. Additionally, they come with a Teflon® nose section for high chemical resistance and NPT threading for mounting on flanges or tanks.

The ULTRIX 100 uses a simple two step "magnetic key" calibration. The calibration data is held in non-volatile memory.

Contegra

ULTRIX™ 100

Typical Installations

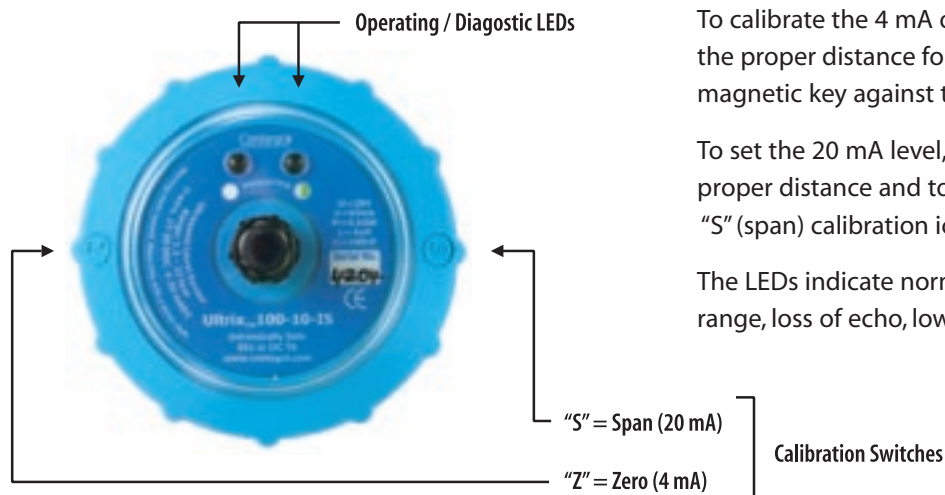
The Ultrix 100 can be flange mounted atop a closed tank (right) or secured to a bracket (below). Additionally, and uniquely, the Ultrix can be suspended by its signal cable.



These two-wire, 4-20 mA transmitters operate up to 50 feet!

NEMA 6 construction, cable suspension mounting, and a narrow beam angle make the Ultrix ideal for use in demanding applications.

Sensor Calibration



To calibrate the 4 mA output, hold the transmitter at the proper distance for the 4 mA level and touch the magnetic key against the "Z" (zero) calibration icon.

To set the 20 mA level, hold the transmitter at the proper distance and touch the magnetic key to the "S" (span) calibration icon.

The LEDs indicate normal operation, invalid media range, loss of echo, low power, and signal verification.

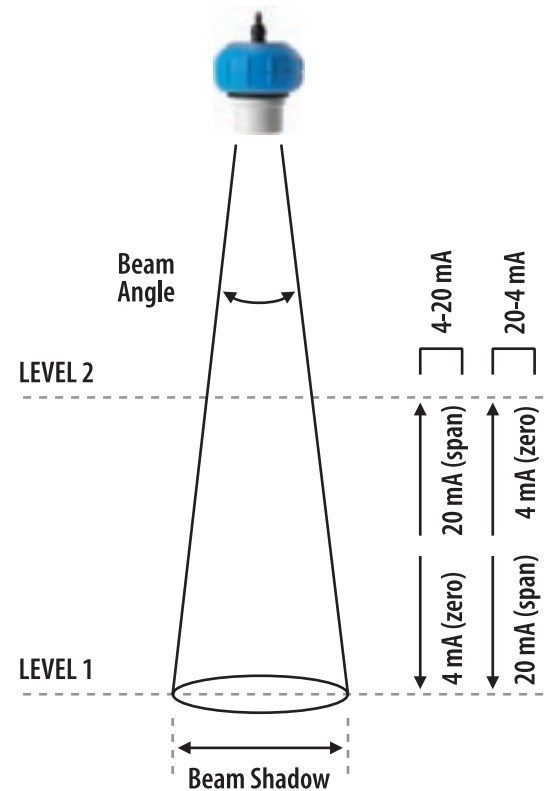
ULTRIX™ 100

Ultrasonic Level Transmitter

SPECIFICATIONS		5	8	10	15	F (flow)
Range:	Liquid = Solid =	0.8-17' 0.8-8'	1.0-26' 1.0-12'	1.3-33' 1.3-16'	1.6-50' 1.6-24'	.8-10' —
Resolution:		.12"	.12"	.12"	.12"	.08"
Beam Angle (included):		7°	8°	10°	11°	7°
Beam "Shadow" Ratio:		1:0.12	1:0.15	1:0.20	1:0.20	1:0.12
Frequency (kHz):		56	52	44	35	56
Treading (NPT):		2"		2.5"		2"
Weight (including cable):		2.2 lbs		3.3 lbs		2.2 lbs



Power:	17 - 30 VDC, 0.48 watts maximum, reverse polarity and transient protection
Output:	4-20 mA (standard) or 20-4 mA
Load:	$R_{max} = (V_{supply} - 17) \times 50$
Accuracy:	0.25% of maximum span (Integral temperature compensation)
Default Output:	3.8/4/22 mA selectable (4 mA std.)
Setup:	Single magnetic key for independent span and offset adjustment (provided) Dual magnetic keys for response rate and default mA adjustment
Memory:	non-volatile EEPROM
Operating Temp:	-3° F to 167° F (104° F for Intrinsically Safe versions)
Mounting:	By the sensor's cable or NPT threading on nose section
Response Rate:	Immediate or 6, 17, 33 or 66 ft/min (adjustable). 17 ft/min is standard. Model F is immediate only (for flow measurement).
Tracking Speed:	12 ft/s approaching, 15 ft/s receding
Maximum Pressure:	14 PSI
Material:	
Housing:	UPVC
Transducer:	Teflon® *
O-ring:	Nitrile
Cable:	PVC (15 ft)
Enclosure Rating:	NEMA 6 submersible, IP68 (epoxy potted interior)
Display:	2 operating/diagnostic LEDs on-board and visible
Ratings:	UL 508 and CE certified (std.), Intrinsically safe models are EEx i, a IIc T6



*The transducers of the Ultrix 100-10 and -15 have PVC sidewalls to enable greater ultrasonic impulse strength.

NEMA 6: For indoor or outdoor use to protect against hose-direct water, temporary submersion and damage from external ice formation.

IP68: Protection against indefinite immersion

Teflon® is a registered trademark of DuPont. ULTRIX™ and CONTEGRA® are trademarks of Contegra Inc. Specifications are subject to change without notice.

See www.contegra.com for additional information

ULTRIX™ 100

Engineering Specifications

An ultrasonic level transmitter shall be provided to sense the liquid level of the _____ at the location as shown on the plan drawings and in accordance with the manufacturer's recommendations. The transmitter shall be a 4-20 mA DC, 2-wire, 17-30 VDC loop powered type with its output signal directly proportional to the measured level excursion. The transducer shall be UL listed.

The transmitter shall be self-contained with a NEMA 6/IP68 housing. The transmitter shall be capable of being suspended by its signal cable. Its nose section shall be made of Teflon® with 2" NPT threading. The upper body shall be of UPVC. The transmitter shall be a CONTEGRA ULTRIX™ 100.

The transmitter shall be third party approved intrinsically safe.



MOUNTING OPTIONS

- Suspended by its cable
- 2" or 2.5" NPT thread on nose section
- Flange (flange sold separately)

Ordering Information (see example below)**

Model	Range	Options	Accessories
Ultrix 100	XXX 5 (0.8-17 ft) 8 (1-26 ft) 10 (1.3-33 ft) 15 (1.6-50 ft) F (0.8-10 ft) flow	IS = Intrinsically Safe rated Cal (4 mA SP, 20 mA SP) Config (Default mA, Response Rate)	U100-Mag Additional Magnet <i>Please consult the factory for more information about meters, power supplies and intrinsically safe barriers.</i>

A typical model number is **ULTRIX 100-5-IS which is an Ultrix 100 with a 17 foot (5 meter) range that is rated intrinsically safe. Accessories are specified as separate line items.



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