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# SUBMERSIBLE LEVEL TRANSDUCER

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## MODEL SLX 220a

### FEATURES

- Loop powered 4-20 mADC output
- Choice of ranges:  
0-2 feet to 0-60+ feet
- Rugged construction:  
Lightning & transient protection  
Chemical resistance
- Field calibration circuit
- Large 2.5" Teflon® diaphragm
- Sealed breather system

### APPLICATIONS

- Sewage Wet Wells
- Sludge Sumps
- Ground Storage Tanks
- Clearwells
- Process Sumps

CONTEGRA'S Model SLX 220a submersible level transducer reliably measures the level of water, wastewater, or other liquids based upon the hydrostatic pressure of the liquid above the submerged sensor's diaphragm. The transducer provides a 4-20 mADC output signal that is directly proportional to the sensed level.

The Model SLX 220a provides superior service in demanding level sensing applications such as sewage wet wells, treatment plant level monitoring, etc. Its PVC, Teflon®, PVDF, and Viton® wetted parts provide strong chemical resistance.

The isolated, loop powered 4-20 mADC transmitter is accurate and reliable.

The Model SLX 220 provides convenient signal spanning and offsetting and in-circuit calibration.

The T420 is shown. It is provided with the SLX 220.  
The T425 is provided with the SLX 220a.  
The SLX 100 is shown. The SLX 130 is provided.



# MODEL SLX 220a

## Specifications

### Sensing Element Pressure Ranges (PSI):

- 5 (0 - 11.5 ft.)
- 15 (0 - 34.6 ft.)
- 30 (0 - 69.3 ft.)

Consult factory for other ranges.

**Accuracy:** 0.25% over the full-scale pressure range including nonlinearity, hysteresis, and repeatability.

**Overpressure:** 4X @ 5 PSI, all others 3X

**Compensated Temperature:**  
+32° to +180° F (0° to +82°C) non-freezing.

**Wetted parts:** PVC body, Teflon® signal cable and diaphragm, Viton® and PVDF sealing components.

**Signal Cable:** Teflon® jacket, shielded, Kevlar® support member, breather tube for sealed breather system.

**Input/Output:** Loop powered 4-20 mA output, 12-28 VDC Class 2 supply into 0-1000 ohms.

Lead reversal protection.

### Span Adjustment:

SLX 220a: From 25-100 % of range  
SLX 220: From 10-100% of range. See T420 specifications for additional features.

**Sensor Mechanical:** Height - 9",  
Diameter - 3.8", Cable Diameter - 0.26"

**Electrical Connections:** Cage clamp-type barrier terminals for AWG #12-22

**Transmitter Enclosure (option):**  
Nema 4 FRP, lockable

### Approvals:

Submersible is UL Listed 508  
The SLX 220 submersible is optionally UL 913 Intrinsically Safe for Class I Groups A,B,C,D Class II Groups E,F,G; when installed with a listed barrier and appropriate control drawing.

Refer to [www.Contegra.com](http://www.Contegra.com) for further specifications and updates including: range availability, entity parameters and barrier information.

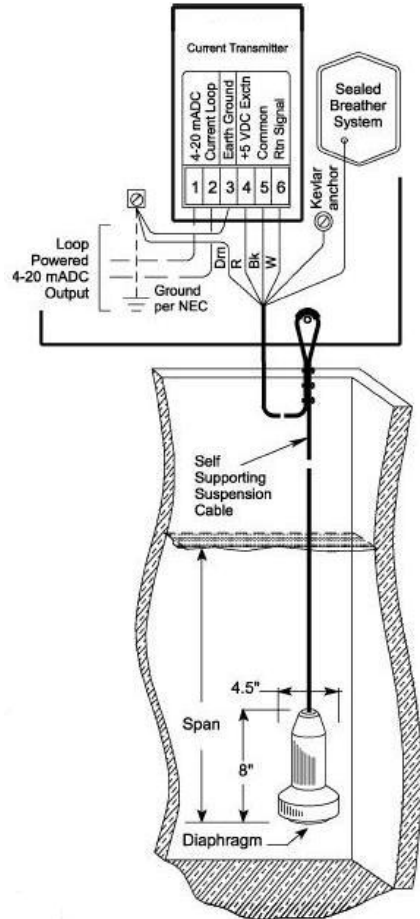
## Engineering Specifications

A submersible level transducer 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 mADC, 2-wire, 12 to 40 VDC loop-powered type with its output signal directly proportional to the measured level excursion. The transducer shall be UL Listed.

The transducer housing shall be fabricated of PVC with a 2.5" diameter Teflon® diaphragm. Silicone oil shall be used as a hydraulic fill. The sensor shall provide an output signal directly proportional to the sensed pressure. The sensor shall be mounted using its signal cable and have 3/4" NPT pipe threading for pipe mounting.

The internal air pressure of the sensor assembly shall be relieved to atmospheric pressure through a sealed breather system.

The transmitter shall contain easily accessible calibration and ranging adjustments. Span shall be adjustable from 25-100% of the sensor range. The transmitter shall provide three levels of transient protection on the 4-20 mA loop: a gas tube arrestor for suppression of high voltages, transorbs, and varistors for fast clamping of lower voltage transients. The transmitter's output shall be measurable without disconnecting the loop power. The transducer shall be a CONTEGRA Model SLX 220a.



## Ordering Information (SEE EXAMPLE BELOW\*\*)

Model	Suffix	Pressure Sensor	Feet of cable	Calibrated Range	Options (not part of UL Listed product)
SLX 220	A = T425 None = T420	XX 5 15 30	XXX 20 ft. minimum 10 ft. increments	XX Specific gravity of 1.0 (water)	ENCLOSURE A = Nema 4X (w/ breather) B = Breather w/o enclosure OTHER M4 = Meter (door mtd. digital) EIS = SLX 130 w/ UL 913

Consult your Contegra representative, the factory, or [www.Contegra.com](http://www.Contegra.com) for additional options

### \*\* A typical model number is SLX 220a-15-50-16-A

This includes a SLX 130 submersible level transducer with a 15 PSI sensor 50 feet of cable, a Nema 4X enclosure with a T425 transmitter calibrated 4-20 mA over 0-16 feet and a sealed breather system.

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