

SECTION 13423 - LEVEL MEASUREMENT

PART 1 - GENERAL

SUMMARY

Section Includes.

- Cord type float switch.
- Submersible level sensor.

SUBMITTALS

Shop Drawings. Submit in accordance Basic Instrumentation Requirements.

PART 2 - PRODUCTS

MANUFACTURERS

Subject to compliance with specified requirements, manufacturers offering products which may be incorporated in Work include:

1. Cord Type Float Switch:
 - a. Anchor Scientific, Inc.
 - b. Consolidated Electric Co.
2. Submersible Level Sensor:
 - a. Omega.
 - b. Siemens.
 - c. Endress Hauser.
 - d. Drexelbrook

FLOAT SWITCH (CORD TYPE)

Direct acting float switch shall be furnished to automatically detect liquid level change. Liquid rise of 1 inch from rest position shall operate float switch and reset will occur when liquid level drops 1 inch. Mounting shall be to a 1-inch vertical pipe for multiple float applications or to a flange for a single float application as shown. Free cable hanging floats with weights shall not be acceptable.

Float switch shall consist of 316 type stainless steel housing, mounting clamp for 1-inch-diameter pipe, flexible 3-conductor cable with a synthetic rubber jacket, and mercury-free switch. Inside float housing will be a (normally open/closed) mercury-free switch potted in epoxy. Electrical load for switch contacts shall be rated 115 volt AC at 0.5 horsepower inductive load.

Three-conductor cable shall be 14 AWG with 105 strands per conductor made for heavy flexing service and underwater use. A green grounding wire shall connect internally to float housing.

SUBMERSIBLE LEVEL SENSOR

Submersible level sensor shall measure liquid depths using a fully submerged differential pressure transducer suspended in measured medium by electrical cable. Transducer shall be supplied with cable required to reach control unit from sensor location.

An electronic control unit shall be provided for transducer. Control unit shall provide proper power source for transducer as well as conditioning circuits for converting the output signal into a useful format. Unit shall have zero and span adjustments. Output from control unit shall be 4-20 mA DC into 500 ohms, and 4 amp rated relay contacts. Adjustable set points and an LED status indicator shall be provided for each output relay.

Control unit shall be housed in a NEMA 4 enclosure and shall operate on 120 volt AC, plus or minus 10 percent, 60 Hertz power. The unit shall contain a LCD digital indicator. Sensor shall be intrinsically safe as required by application shown on Contract Drawings.

PART 3 - EXECUTION

NOT USED.

END OF SECTION 13423