REFERENCE

CERTIFICATE

ISO 9001 : 2008
ISO 14001 : 2004
BS OHSAS 18001 : 2007

1 WARNING

Warnings identify potentially dangerous situations or serious hazards. In this manual, a warning indicates an imminently hazardous situation which, if not avoided, could result in serious injury or death.

For efficient working of your Level switch, please read all instructions carefully before attempting to installation and Operation.

In hazardous area, do not power the unit until the cable gland is sealed and the enclosure cover is screwed down securely.

Do not attempt to unscrew the cover of Flame proof housing before loosening locking screw in the base housing. Always re-tighten the locking screw after replacing cover.

Before attempting any work on the control, be certain to pull disconnect switch or otherwise assure that electrical circuit(s) through control is deactivated, close operating medium supply valve on controls equipped with pneumatic switch mechanisms.

After increasing differential adjustment, be certain to check carefully for proper operation of switch mechanism. Magnet must “snap' clearly with additional float movement available after magnet snaps. With Electrical power 'on', care should be taken to avoid contact with switch leads and connections at terminal block.

When in doubt about the condition or performance of a ITEC Level switches, return it to the factory.

Supply voltage should not exceed switch rating. For higher voltages, the use of relay circuit is recommended.

2 GENERAL

ITEC Side mounting level switch mount horizontally to any tank or vessel through a treaded or flanged pipe connection. Standard models are normally equipped with a single switch mechanism for high or low level alarm or control applications. The Side Mounted Level switch is available with two switch mechanisms for two level stage applications, providing the operating functions of two separate instruments such as high and low level alarm.

3 OPERATING PRINCIPLE

Side mounting units employ permanent magnetic force as the only link between the float and the switching element. As the pivoted float follows, liquid level changes, it moves a magnetic sleeve into or out the field of a switch actuating magnet causing switch operation. A non-magnetic barrier tube effectively isolates the switch mechanism from the controlled liquid.

4 INSTALLATION

To ensure safe working during installation and servicing, suitable shut-off valves must be installed in the plant, enabling the device:

- To be depressurized or taken out of operation,
- To be disconnected from the mains supply,

Before assembling the level switch to tank or vessel, check threaded or flanged mounting nozzle for the following:

1) Nozzle length and inside diameter must be sized correctly to allow for switch actuation at design levels within the maximum differential available.

2) Nozzle should be checked for horizontal alignment. Finished mounting must allow control switch Housing to be within 4° degrees of vertical for proper operation. A four degree slant is noticeable by eye, but installation should be checked with a spirit level.

3) On High Temperature application the Head must to use with cooling provision, the wires should be used between level switches control and first junction box .

4) To gain access to switch mechanism removes switch cover.

5) Pull in supply wires and connect to proper terminals. Be certain that excess wire does not interfere with switch and that adequate clearance exists for replacement of switch housing cover.

6) Connect power supply to level switch and test switch action by varying the liquid level in the tank or Vessel.

MAINTENANCE

All the Level switches should be checked regularly for wear and tear, accuracy, and proper functioning. Replace all broken or damaged parts immediately.

Never leave switch housing cover off the control. This cover is designed to keep dust and dirt from interfering with switch mechanism operation. In addition, it protects against damaging moisture and acts as a safety feature by keeping bare wires and terminals rom being exposed. Should the housing cover become damaged or misplaced, order a replacement immediately.

ITEC Level Switches may sometimes be exposed to excessive heat or moisture. Under such conditions, insulation on electrical wires may become brittle, eventually breaking or peeling away. The resulting "bare" wires can cause short circuits. Check wiring carefully and replace at first sign of brittle insulation. Vibration may sometimes cause terminal screws to work loose. Check all terminal connections to be certain that screws are tight. Air (or gas) operating medium lines subjected to vibration may eventually crack or become loose at connections causing leakage. Check lines and connections carefully and repair or replace, if necessary.