

INSTRUCTION MANUAL

MINI LEVEL SWITCH





Warning

Read all warnings and instructions before performing installation or maintenance. Safety glasses and gloves should be worn at all times when working with or examining water gauge glass and connections

Danger

Improper installation or maintenance of gauge glass and connections can cause immediate or delayed breakage resulting in bodily injury and/or property damage.

Installation

1. INSTALLATION

- Qualified experienced personnel who are familiar with this equipment and have read and understood all the instructions in this manual should undertake installation.
- The user should refer to NK Instruments product proposal to obtain over all dimensional information.
- Always check the float magnet is clean before final installation.
- Unpack the mini level switch from its box and remove all packing pieces, tie strings and tape.
- The gasket supplied with this product is a non-asbestos composite and must be handled with care to avoid damage.
- Mini Level Switches may be installed through the side wall of a tank or from the top of the tank. The mini level switches has dual male 1/2" NPT threads for installation from the outside of the tank in or the inside of the tankout. If the Level Switch is installed in the Outside-In method, then the outer threads may be used for connection to conduit.
- The level switch should be positioned so that the float may move freely over its full travel and not foul the sides, bottom or top of the tank etc., in which it is mounted.
- Positions where turbulence may be caused by agitators or by inlet connections should be avoided.
- The plant should be clear of any loose materials or metallic particles which might accumulate round the float magnet and interfere with the operation of the switch. Where the liquid may contain sediment or solid particles, particular attention must be given to keeping these free of the float assembly.
- A suitable mounting bracket is required for mounting the switch over open top tanks and sumps.
- The switch should be conveniently positioned at a point of access for both installation and
- Maintenance. Care should be taken to ensure that condensation can not drain down the conduit in to the switch head.

2. ELECTRICAL CONNECTION

The electrical connection must comply with the safety regulations for installing electrical systems and equipment that apply in the country where the unit is installed and this work may only be undertaken by qualified personnel. The mini float switch is to be connected in the junction box or to the connecting cable, as indicated on the connection plan. For units with the junction box, the cable is passed through the cable gland and sealed. Ensure the lid of the junction box is properly sealed.



3. CAUTION

The user has to ensure, that instruments, which have an earthing connection, are properly earthed. Instruments with connecting cable are not earthed and in case of malfunction they can be comelive. Those instruments must be operated with extra -low voltage. Instruments which are used in plants and have an inside coating, have to be provided with a earthing bracket or a screw outside the terminal box, with which can be hold a earthing connection to the plant. If the switch is connected to an inductive load, it may be damaged beyond repair. A protective circuit with an RC elementor a free wheeling diode should be provided. If the switch is connected to a capacitive load, a protective resistor is to be connected in series to limit the peak current. Electrical over loading may result in the switch being damaged beyond repair. This will cause the magnetic float switch and the control connected in the outgoing circuit to malfunction, which may result in damage to property and injury to persons. Maximum electrical switching capacities must be complied with. The power supply should be adequate and correct for the application

Product Warranty

NK Instruments, warrants its products as designed and manufactured by NK Instruments to be free of defects in material and workmanship for a period of one year after the date of installation or eighteen months after the date of manufacture, whichever is earliest. NK Instruments will, at its option, replace or repair any products which fail during the warranty period due to defective material or workmanship.

Prior to submitting any claim for warranty service, the owner must submit proof of purchase to NK Instruments and obtain written authorization to return the product. There after, the product shall be returned to NK Instruments with freight prepaid.

This warranty shall not apply if the product has been disassembled, tampered with, repaired or altered outside of the NK Instruments factory, or if it has been subjected to misuse, neglect or accident.

NK Instruments responsibility here under is limited to repairing or replacing the product at its expense. NK Instruments shall not be liable for loss, damage, or expenses directly or indirectly related to the installation or use of its products, or from any other cause or for Consequential damages. It is expressly understood that NK Instruments is not responsible for damage or injury caused to other products, building, property or persons, by reason of the installation or use of its products.

THIS IS NK INSTRUMENTS SOLE WARRANTY AND IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED WHICH ARE HEREBY EXCLUDED, INCLUDING IN PARTICULAR ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This document and the warranty contained here in may not be modified and no other warranty, expressed or implied, shall be made by or on behalf of NK Instruments unless modified or made in writing and signed by the Proprietor of NK Instruments.

Warning

Read all warnings and instructions before performing installation or maintenance. Safety glasses and gloves should be worn at all times when working with or examining water gauge glass and connections



Danger

Improper installation or maintenance of gauge glass and connection can cause immediate or delayed breakage resulting in bodily injury and/or property damage.

USE And Care

- DO NOT's
- DO NOT use glass if it contains any scratches, chips, or any other visible signs of damage.
- DO NOT reuse any glass packing.
- DO NOT subject gauge glass to bending or torsional stresses.
- DO NOT overtighten glass packing nuts.
- DO NOT allow glass to touch any metal parts.
- DO NOT exceed there commended pressure of the gauge or gauge glass.
- DO NOT clean the gauge or gauge glass while pressurized or in operation.

DO's

- DO verify proper gauge has been supplied.
- DO examine gauge and packing carefully for damage before installation.
- DO install protective guards and utilize automatic ball checks where necessary to help prevent injury in case of glass breakage.
- DO inspect the gauge daily, keep maintenance records, and conduct routine replacements.
- DO protect glass from sudden changes in temperature such as drafts, water spray, etc.

General Maintenance

Examine the gauge regularly for any signs of clouding, scratching, erosion, or corrosion. This will help establish the routine inspection and routine replacement schedules.

Inspection

Examine the surface of the gauge for scratches, corrosion, chips, cracks, surface flaws, or nicks.

Storing

Keep the gauge in original packaging until ready to install.

Wires Colour Code

NO	NC	Common
Black	Red	White

Manufacturer & Marketed by:



NK Instruments Pvt. Ltd.

B-501/504, 5th floor, Raunak Arcade, Near THC Hospital, Gokhale Road, Naupada,
Thane(W) 400602. Maharashtra INDIA Telefax Nos.: 91-22-25301330 / 31 / 32
E-Mail: sales@nkstruments.com Web: <http://www.nkstruments.com>
Skype: nitinkelkarskype Gtalk: nkstruments2006

