

## DRUM SCALE INDICATOR (LIQUID LEVEL INDICATOR FOR DRUMS & BARRELS) - DSI

Shridhan “Drum Scale” liquid level indicator is a mechanical device to measure the level of liquids stored in a standard drum of 210 liters (45 Gallons drum).

### CONSTRUCTION

A hollow stainless steel pipe, sealed at bottom (stem) is fixed to the drum such that it dips through its depth. A spherical magnetic float slides onto the pipe co-axially from outside and floats on the surface of the liquid.

A square aluminium rod is placed inside the hollow pipe with a magnetic tip, on which are inscribed graduations in centimeters, liters, and mere decimal scale indicating percentage 0-100%. A stainless steel cap, secured by a small chain serves to close the assembly after use, in order to protect the graduated scale from atmosphere.

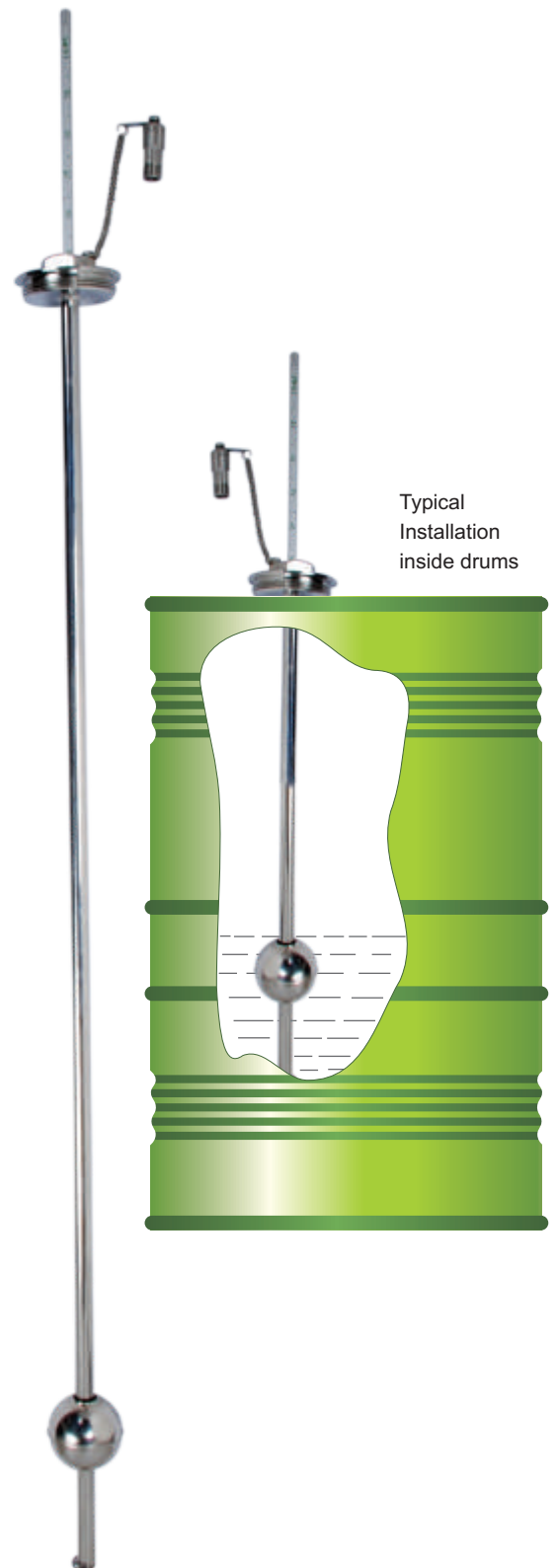
### OPERATION

The float inside the drum slides over the stem, up and down, with the level of liquid rising and falling respectively. Level of liquid can be ‘felt’ by opening the screw cap at the top and by slowly inserting the graduated rod scale back into the stem, until its magnetic tip interlocks with the magnetic float, which incidentally is on the liquid surface. The scale is held at this point and the barrel contents can be read off the scale, where the square rod aligns with the mounting unit. The three surfaces of the rod are marked either in Cms, Liters, on third side in percentage.

After taking the reading, the graduated rod scale is carefully lowered into the stem and secured by closing the screw cap.

### ADVANTAGES

- Ideal for quick checking of liquid level without opening the drum every time.
- No electricity is required for measurement.
- Simple to operate merely lift the scale, ‘feel’ the interlock and read the level or quantity.
- High degree of realibility and accuracy.
- Compatible with many liquids, such as water, fuels, edible oils, petrochemicals, mild chemical solutions, which are compatible with stainless steel.
- Tank content can be measured as level in Cm or as percentage of the full value or even in liters.
- **Maintenance Free** : If used carefully, as indicated in our manual, the gadget should last very long.
- Can be shifted from drum to drum after the pipe and float are thoroughly cleaned and dried.



## HOW TO USE (Refer fig.1 & 2 as below)

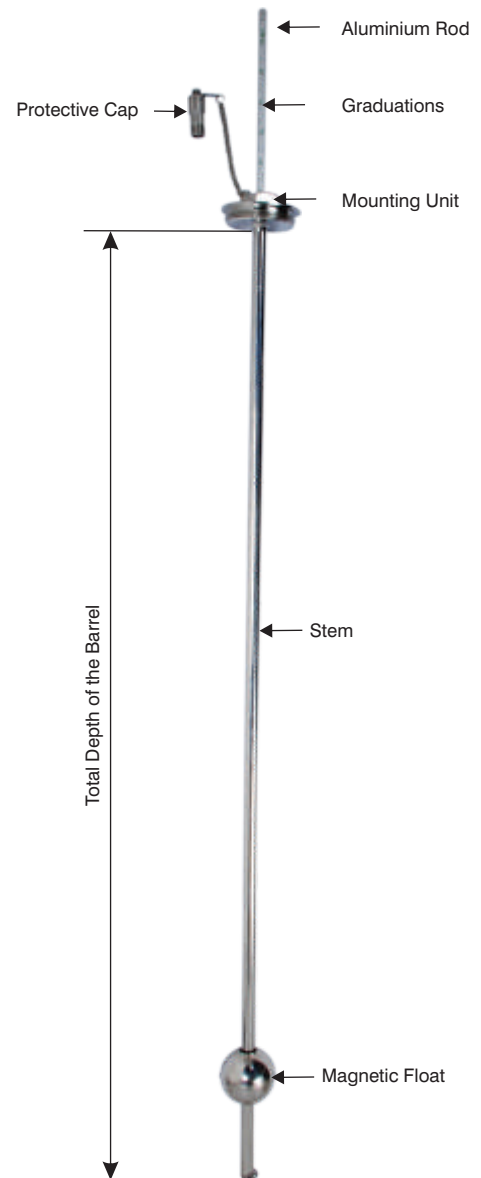
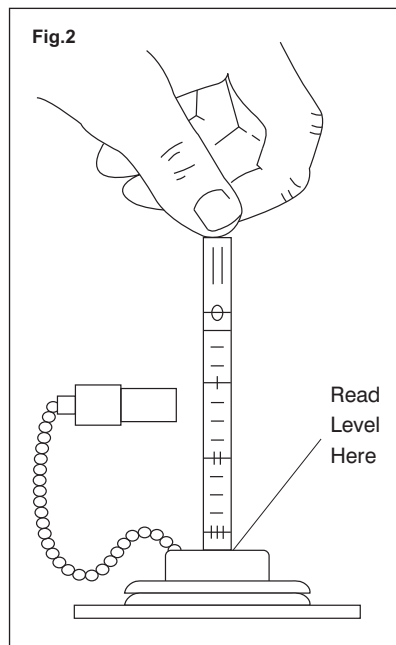
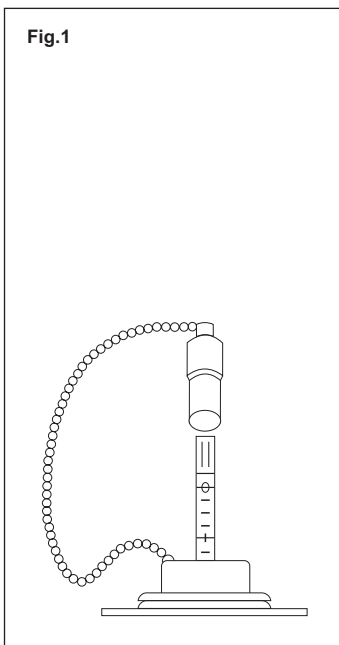
- Unscrew and remove the protective cap.
- Lift the indicator fully till the top mounting unit and insert it back into stem slowly until slight pull is felt, as indicator magnetically locks at float and stops.
- Read level on indicator where it align with top of mounting unit.
- Lower the indicator back into unit, replace protective cap.

## TECHNICAL SPECIFICATIONS

Mounting	: 2" BSP Male screw fits standard drum opening
Material of construction	: Wetted parts SS304 (Can supply also in SS-316)
Graduated Scale	: Aluminium Alloy
Operating Conditions	: Temperature limits-40C to + 70C
Pressure	: Up to maximum of 3 Kg/cm <sup>2</sup>
Accuracy	: + 1% of full scale

## LIMITATIONS

1. When the drum level is below 30 mm, accurate indication is not available owing to the float resting on bottom stopper.
2. The drum scale may not work, when the liquid stored inside the drum solidifies, freezes, crystalizes or forms scales on the stem.
3. Not suitable for solvent based solutions like varnishes, paints and other liquids which are film-forming upon and drying up.



### NOTE:

1. Standard product is for 45 Gallon Drum (210 liter barrel) but we can custom-build the device for other storage vessels.
2. Other materials like PVC can be used in custom made.

## SHRIDHAN AUTOMATION PVT. LTD.,

#B-54, KSSIDC Industrial Estate, Kumbalagodu,

Mysore Road, Bengaluru - 560074

Ph. : 080 - 28437847 / 28437848 ; Fax : 080 - 28437849

Email : info@shridhan.com ; Website : www.shridhan.com

Note: All dimensions in MM, unless otherwise specified.