Mess-, Regel- und
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Operating instructions

Mechanical level indicator

Unimes

☞ Read instructions before using device!

☞ Observe all safety information!

☞ Keep instructions for future use!

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1 Product description

The mechanical level indicator UNIMES displays the level in tanks.

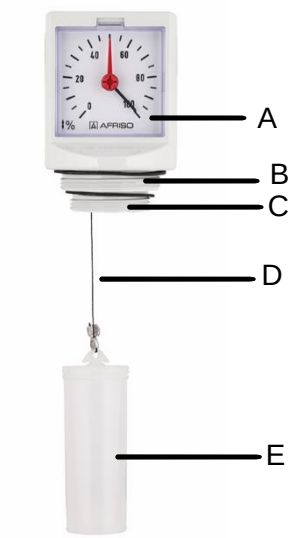
The mechanical level indicator UNIMES is only suitable for level measurement of the following liquids:

- Fuel oil EL as per DIN 51603-1 and as per DIN SPEC 51603-6 with 5-100 % fatty acid methyl ester (FAME) as per EN 14214
- Diesel fuel as per EN 590 with up to 7 % fatty acid methyl ester (FAME) as per EN 14214
- Biodiesel with up to 100 % fatty acid methyl ester (FAME) as per EN 14214
- Paraffinic fuels (such as HVO/GTL) proportionately with 0 - 100 %
- Liquids which are compatible with the materials used

2 Technical data

Parameter	Value
General specifications	
Material	ABS, impact-resistant
Washer	SAN
Measuring range	0 … 200 cm
Tank height	90 … 200 cm
Indication	0 … 100 % liquid level
Connection thread	G1½ G2
Float	
Material	PE-HD
Diameter	41 mm

3 Mounting



A) Display unit
B) Thread G2
C) Thread G1½
D) Float wire
E) Float

3.1 Adjusting the float

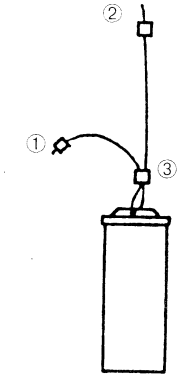


Fig 1: Float adjustments

The float wire has 3 seals. Seals 1 and 2 are fixed. Seal 3 is fixed when the float is at the height to be adjusted.

3.1.1 Tank without manhole or flange connection piece

1. Move the float to seal 2.
2. Fix seal 3.

3.1.2 Tank with manhole or flange connection piece

1. Measure the height of the manhole or the flange connection piece.
2. Plot the measure of the projection of the manhole or the flange connection piece to the length of the float line from seal 2 towards seal 1.
3. Mark the position.
4. Slide the float to the mark.
5. Fix seal 3.

3.2 Adjusting the measuring range

The mechanical level indicator UNIMES is factory-adjusted to the maximum tank height.

3.2.1 Changing the settings

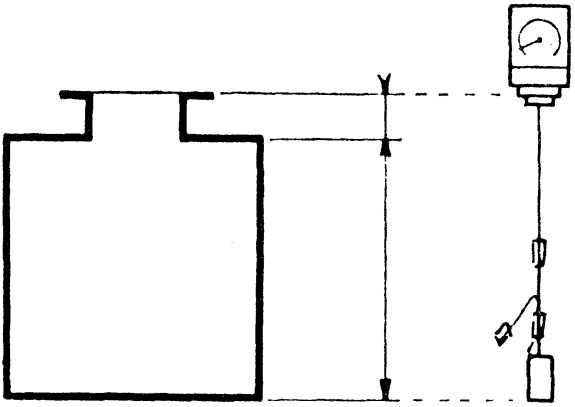


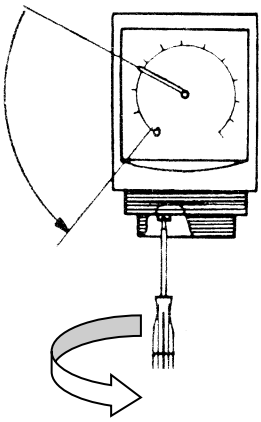
Fig. 2: Adjusting the measuring range

1. Pull out as much float wire as required by the height of the tank.

   ☑ Take into account the projection of the manhole or the flange connection piece when doing so.

2. Measure from the bottom end of the float to lower end of the G2 thread.
3. Turn the adjustment screw at the display unit to the right

   ↳ The pointer is set to zero.



4 Conversion % to litres

4.1 Rectangular tanks

1. Read the value on the display unit.
2. Multiply the capacity of your tank with the amount displayed.

   ↳ Result = litres

   Example:

   Display unit = 23 %

   5200 l (capacity) x 23 % = 1196 litres

4.2 Cylindrical or oval tanks

1. Read the value on the display unit.
2. Refer to the table for the content of your tank (cylindrical or oval).
3. Multiply the capacity of your tank with the amount displayed.

   ↳ Result = litres

Example with a cylindrical tank:

Display unit = 20 %

Content according to the table = 14.2 %

5200 l (capacity) x 14,2 % = 738.4 litres

Display unit in %	Content cylindrical tank in %	Content oval tank in %
10	5.2	6.6
15	9.3	11.6
20	14.2	16.8
25	19.4	22.2
30	25.2	27.8
35	31.1	33.3
40	37.2	38.9
45	43.6	44.5
50	50	50
55	56.4	55.5
60	62.8	61.1
65	68.9	66.7
70	74.8	72.2
75	80.6	77.8
80	85.8	83.2
85	90.7	88
90	94.8	93.4

The level in cm is calculated as follows:

Height in cm = indicated height in % multiplied by tank height in cm = height of liquid level in in cm.

5 Addresses

The addresses of our worldwide representations and offices can be found on the Internet at www.afriso.com.