

# Level meter

## Model 5730

WIKA data sheet LM 70.05

### Applications

- Conductive liquids – water, acid, alkalis
- Non-conductive liquids – oil, lubricants
- Solids – free flowing fine powder
- Tank fill and drain functions
- Pump control

### Special features

- Wide differential option
- Analog and digital output
- Relay outputs for alarm sequence control



Fig.: Left: Probe head, style GN enclosure

Fig.: Right: Remote control unit, style RC enclosure

### Description

The model 5730 has been developed for monitoring and control of process level by using the principle of R.F. Capacitance.

These instruments are suitable to measure liquids, slurries and bulk solid applications. Compact size and ease of installation combined with accurate sensing of level in both hazardous and non-hazardous locations render these level switches the most versatile.

These are simple in design, rugged in construction. The sensing probes are available for both conductive

and non-conductive processes. A variety of configuration and mounting styles are available to meet wide range of process requirements.

Model 5730 Flexicap level meter is a micro-controller based level instrument having variety of features, such as 4 Alarm Relays, Current & Voltage outputs and adjustable Time Delay.

## Specifications

Basic information	
Model	5730 - Level meter
Enclosure	<ul style="list-style-type: none"> <li>■ Weather proof - Style GN Die cast aluminium epoxy power coated for probe head</li> <li>■ Weather proof - Style RC Polystyrene for control unit</li> </ul>
Process connection	<ul style="list-style-type: none"> <li>■ Screwed</li> <li>■ Flanged</li> </ul>

Mounting	
Orientation	Vertical
Remote version	<ul style="list-style-type: none"> <li>■ Probe head - Online</li> <li>■ Control unit - Wall</li> </ul> <p>Max. distance of separation between probe and control unit is 1500 meters</p>

Probe	
Type	<ul style="list-style-type: none"> <li>■ Single Rigid rod</li> <li>■ Dual Rigid Rod</li> <li>■ Stillwell 1/4" dia rod with 19 mm OD tube</li> <li>■ Stillwell 22 mm dia probe with 33 mm OD tube</li> <li>■ Single Flexible rope</li> <li>■ Dual Flexible rope</li> </ul>
Counter weight (applicable only for flexible probe)	<ul style="list-style-type: none"> <li>■ 35 mm dia × 200 mm long (inactive length is 300 mm)</li> <li>■ 55 mm dia × 100 mm long (inactive length is 200 mm)</li> </ul>
Counter weight material	<ul style="list-style-type: none"> <li>■ 316 SS</li> <li>■ 316 SS with Teflon lined</li> </ul>
Probe material	<ul style="list-style-type: none"> <li>■ SS 304</li> </ul>
Insulation	Teflon FEP (Fluorinated ethylene propylene) Not applicable for Stillwell 22 mm dia probe with 33 mm OD tube
Length	<ul style="list-style-type: none"> <li>■ 300 ... 2000 mm for rigid rod type &amp; stillwell type</li> <li>■ 2 ... 10 meters for flexible rope type</li> </ul>

Display	
Type	10.7 mm character single row Alphanumeric backlit LCD
Programme data	8 Characters
Process value	999 counts maximum displayed in 3 digits

Input & Output signals	
Input	0 ... 10000 pF
Minimum hysteresis	50 pF
Power supply	<ul style="list-style-type: none"> <li>■ 100 to 240 V AC</li> <li>■ 18 to 32 V DC</li> </ul>

Response time	<1 second
Setpoint count	4
Setpoint range	0 ... 999 counts
Relay output	4, one SPDT relay for each set point
Relay sequence	5, Programmable sequences
Contact rating	5A, 250 V AC / 28 V DC for Weather proof enclosure
Analogue output	4 ... 20 mA & 1 ... 5 V DC
Time delay	0 ... 250 sec. Adjustable
Relay mode (Programmable)	<ul style="list-style-type: none"> <li>■ Normal</li> <li>■ Failsafe</li> </ul>
Dead band	0 ... 999 units Fully programmable
Alarm mode (Programmable)	<ul style="list-style-type: none"> <li>■ Low</li> <li>■ High</li> </ul>
Units	%, mtr, inch, cm, mm & feet
Status Indicating LED	<ul style="list-style-type: none"> <li>■ Power ON - Red</li> <li>■ Relay ON - Yellow</li> </ul>

Electrical entry	
Probe head	1/2" NPT(F) per ASME B1.20.1 (1 no)
Remote head	<ul style="list-style-type: none"> <li>■ PG 9 (1 no)</li> <li>■ PG 11 (2 nos)</li> <li>■ PG 13.5 (1 no)</li> </ul>

Operating condition	
Ambient temperature range	10°C ... +50°C
Medium temperature range	<ul style="list-style-type: none"> <li>■ 10°C ... +125°C</li> <li>■ Heat sink applicable for media temperature from 85 to 125°C</li> </ul>
Operating pressure	10 bar
Ingress protection	IP65
Weight	5 Kgs. approx.

## Accessories

See Data sheet AC 10.82

## Certificates (option)

Certificates	
Production certificates	2.2 test report 3.1 inspection certificate

## Ordering matrix

### Basic model

Level meter, remote version, weatherproof IP65 ————— 5730

### Power supply

100 to 240V AC ————— L

18 to 32V DC ————— P

### Probe type

Single rigid rod, 1/4" dia ————— 1

Single rigid rod, 1/2" dia ————— 2

Dual rigid rod, 2 X 1/4" dia ————— 3

Stillwell 1/4" dia rod with 19 mm OD tube ————— 4

Stillwell 22 mm dia probe with 33 mm OD tube ————— 5

Single flexible rope with counter weight, 1/4" dia ————— 8

Dual flexible rope with counter weight, 2 X 1/4" dia ————— 9

### Probe insulation

Required for conductive medium ————— R

Not required for non-conductive medium ————— N

### Probe length (specify length)

300 ... 2000 mm (incremental of 50) ————— ☐

2500 ... 10000 (incremental of 500) ————— ☐

### Process temperature

Above 85°C below 125°C with heat sink 316 SS ————— H

Below 85°C without heat sink ————— N

### Process connection

3/4"NPTM, ASME B1.20.1 ————— P8

3/4" BSPM, ISO 228/1 ————— P13

1" NPTM, ASME B1.20.1 ————— P12

1" BSPM, ISO 228/1 ————— P11

Screwed, 1½" NPTM, ASME B1.20.1 ————— P10

Screwed, 1½" BSPM, ISO 7-1 ————— P9

Flange, 1½" Ansi 150 RF ————— F5

Flange, 2" Ansi 150 RF ————— F7

Flange, 2 1/2" Ansi 150 RF ————— F9

Flange, 3" Ansi 150 RF ————— FB

Flange, 4" Ansi 150 RF ————— F13

Please specify ————— ☐☐

### Process connection material

Mild steel ————— C

304 SS ————— 4

316 SS ————— 2

### Teflon lining for counter weight

Not applicable ————— Z

Counter weight with teflon lining ————— 1

Counter weight without teflon lining ————— 2

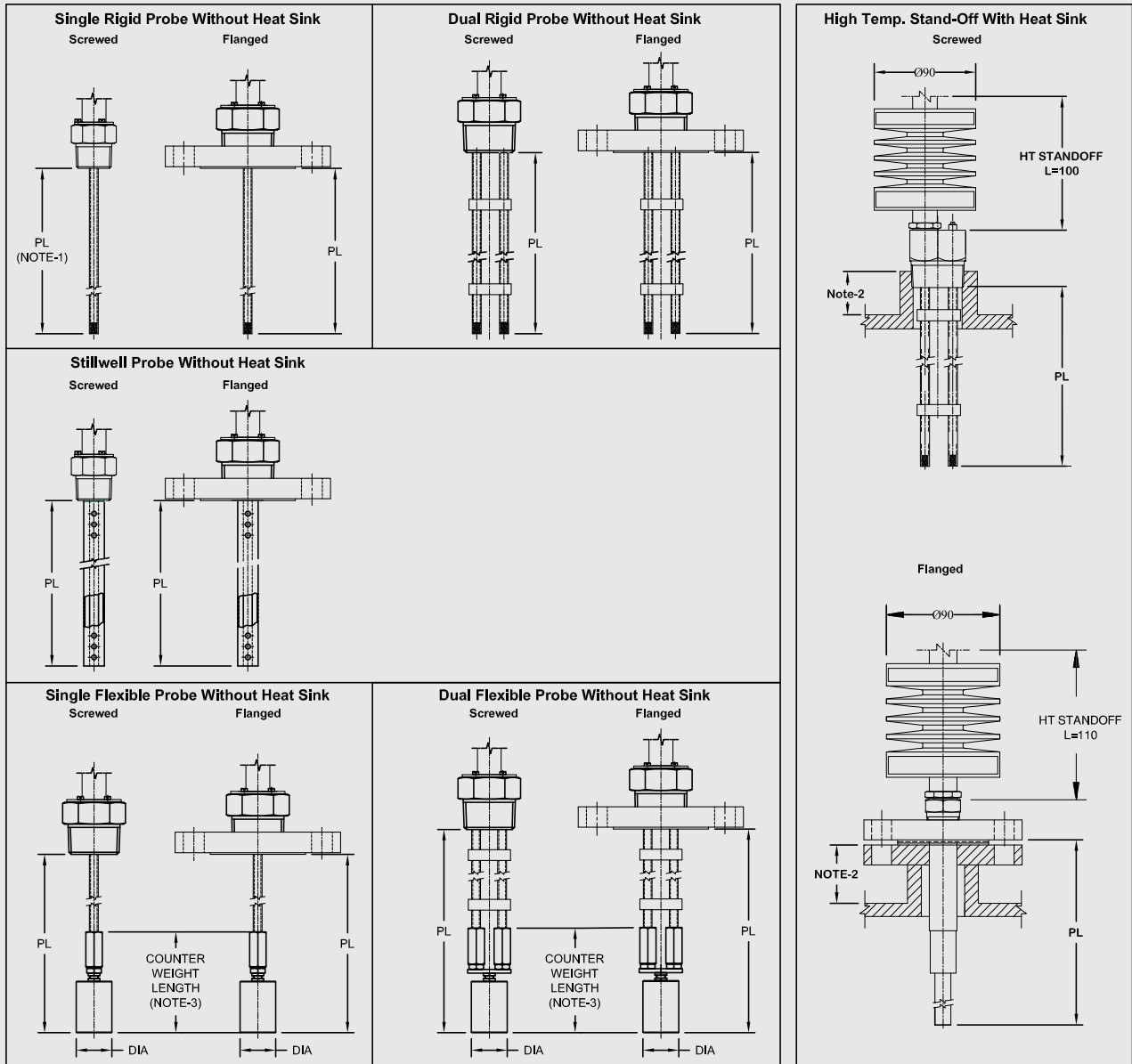
### Teflon lining for flanges

Flange with teflon lining ————— A

Flange without teflon lining ————— B

Screwed without teflon lining ————— C

## Probe types



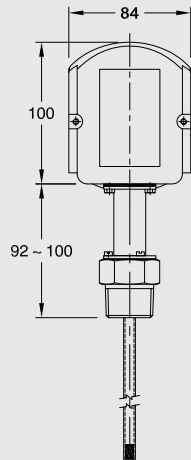
### Notes:

1. 'PL' represents the complete probe length, which will be considered for manufacturing.
2. Customer to consider the necessary length additions, due to the vessel spouts / spacers / flange over the vessel surface and to be included into probe length.
3. Counterweight dimension: probe length (PL) is inclusive of counterweight length for flexible rope type probes.
  - i) 35 mm Ø × 200 mm long for screwed process connection
  - ii) 55 mm Ø × 100 mm long for flanged process connection

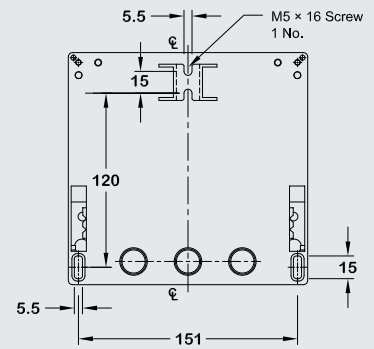
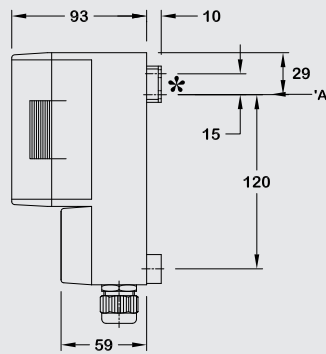
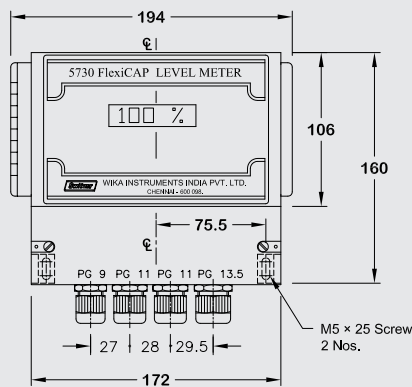
## Dimensions in mm

### Weatherproof remote configuration

#### a) Probe Head – GN-Online mounting



#### b) Remote control unit – "RC" polystyrene with polycarbonate lid



### Ordering information

Basic model / Power supply / Probe type / Probe insulation / Probe length / Process temperature / Process connection / Process connection material / Teflon lining for counter weight / Teflon lining for flanges

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