

High Level by Sound Knowledge



SUMPI
ULTRASONIC LEVEL MEASUREMENT



KAB INSTRUMENTS (PTY) LTD



Principle of Operation

The SUMPI is an Ultrasonic Level Transmitter capable of measuring liquid and solid applications up to a range of 10m. The Transducer is fitted to the top of the silo or tank and faced down towards the material being measured. The microprocessor in the Transmitter fires an electronic pulse which the Transducer converts to an acoustic pulse. This pulse travels to the material and is reflected back from the material. The Transducer then converts this energy back into a signal and stops a counter in the microprocessor which then, knowing the speed of sound through air, can accurately determine the distance. The powerful software removes false echoes and the electronic filter removes ambient noises.

Display

2 LINE 16 CHARACTER ALPHA-NUMERIC DISPLAY

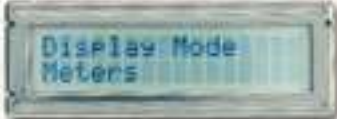
The SUMPI comes with a 2 line alpha-numeric display which allows the user to set up the instrument with ease.



Picture 1 shows the display in the normal run mode. The display shows the Level or Distance. This could be in Meters, Percentage or any Engineering Units (i.e. TON, KG, M3) It also indicates the Relays status.



Picture 2 shows the prompt for the security code. The user must enter this code correctly before any further changes can be made.



Picture 3 shows where a selection can be made. This selection is to set up the SUMPI in Meters.



Picture 4 By pressing the RUN key the display shows the mA output that the SUMPI is giving out and the counter, which counts down, to the loss of echo routine.



Picture 5 By pressing the ENT key the display shows an example of the diagnostic feature being displayed. The user can use this feature when setting up the SUMPI. It shows the instant distance, the echo size, the gain used and the output power levels. It also displays if it is receiving a credible echo.

THIS MAKES THE INSTRUMENT "EAZI" "EAZI" "EAZI"



KAB 10 Transducer together with the SUMPI is being used to measure level in a water tank.



KAB 10 Transducer together with the SUMPI is being used to measure slurry 4 kilometers underground.

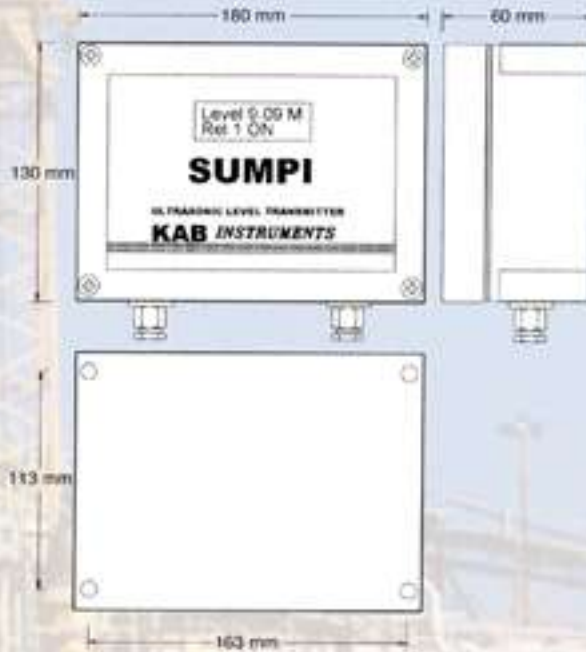




Specifications

- Enclosure
Polycarbonate with smoked lid IP65
- Power Supply
110Vac or 220Vac +/-15% 50/60 Hz 8VA
24Vdc 5VA
- Dimensions
180 mm x 130 mm x 60mm
- Weight
1 kilogram
- Temperature range
-30 to 65°C
- Output Analogue
4-20mA Isolated
Maximum Impedance 750 Ohms
16 Bit resolution
- Relay Output
2 x SPDT relays with 8 Amps 230 VAC
contacts. Fully configurable.
- Range
Up to 10m
- Accuracy
0.25% with temperature compensation
- Local Indication
2 x 16 alpha-numerical display
- Fail-safe
2mA, 4mA, 20mA, 22mA or last reading
- Configuration
5 touch button keys or by KABSCOPE
- Blanking distance
0.3m on KAB 10
- Rate of change
0.1 to 10 m/min
- Approvals
CE compliant to EN 50081, EN 50082

Dimensions



Applications



Solids



Output to PLC

Liquids



Output to PLC

Features

- 21 point lineariser
- Plug in terminals
- Ease of Installation and configuration

Options

- Aiming Kits
- KABSCOPE
- 24Vdc
- Temp compensation

With KAB Instruments It's EAZI, EAZI, EAZI. EAZI to install with the aiming kit. EAZI to configure with the menu display. EAZI to fault find with the KABSCOPE.



The SUMPI is available with the multi-use windows based software package for programming and bin mapping. This versatile package can help set up a SUMPI in seconds.

Aiming Kit

It is advisable to purchase an Aiming kit when a SUMPI is to be used on any solid application. This helps to position the Transducer correctly to maximise the return echo.

Flange Mount Transducer

Specifically designed for corrosive applications. Available in 3" & 4" with Teflon Lining.



Ordering Code

Transducer Ranges

Choose AC or DC power

| | |
|------------|----|
| SUMPI | AC |
| AC Powered | ┌ |
| DC Powered | └ |

KAB 10
Liquids 10m
Solids 5m

KAB 10T
Corrosive
Liquids 10m

KAB 10 F
Solids 10m

P.O.Box 1159
Mondeor
2110
South Africa

Tel: +27 11 435 5380
Fax: +27 11 435 8726

www.kabinstruments.com
Email info@kabinstruments.com

Local Agent

