

Level by Sound Knowledge



SUMPI MR
ULTRASONIC LEVEL MEASUREMENT





Principle of Operation

The SUMPI MR is an Ultrasonic Level Transmitter capable of measuring liquid and solid applications up to a range of 30m. 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

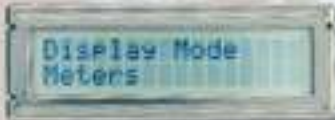
The SUMPI MR comes with a 2 line alpha-numeric display which allows the user to set up the instrument with ease.



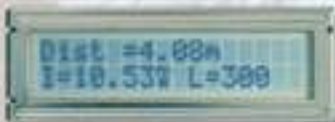
Picture 1 shows the display in the normal run mode. The display shows the Level or Distance. This could be in Meters, Percentage or any Engineering Units (i.e. TON, KG, M3) It also indicates the Relays status.



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 MR in Meters.



Picture 4 shows the mA output that the SUMPI MR is giving out and the counter, which counts down, to the loss of echo routine.



Picture 5 shows an example of the diagnostic feature being displayed. The user can use this feature when setting up the SUMPI MR. 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 "EASI" "EASI" "EASI"



The KAB 20 Transducer together with the SUMPI MR is being used in a very dusty and noisy environment to measure coal in a loading bay.



The KAB 20 Transducer is attached to a shuttle car and measures the level of the coal in the bunkers.





Specifications

Enclosure
Polycarbonate with clear hinged lid IP65

Power Supply
110Vac or 220Vac +/-15% 50/60 Hz 8VA

Dimensions
165 mm x 160 mm x 135mm

Weight
1.2 kilograms

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 30m depending on transducer.

Accuracy
0.5%

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

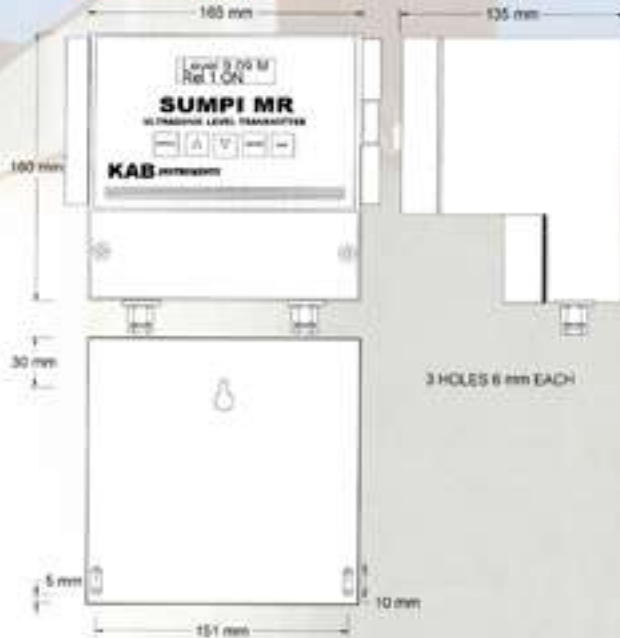
Features

21 point lineariser
Plug in terminals
Ease of Installation and
Configuration

Options

Aiming Kits
KABSCOPE
Din rail mounting

Dimensions

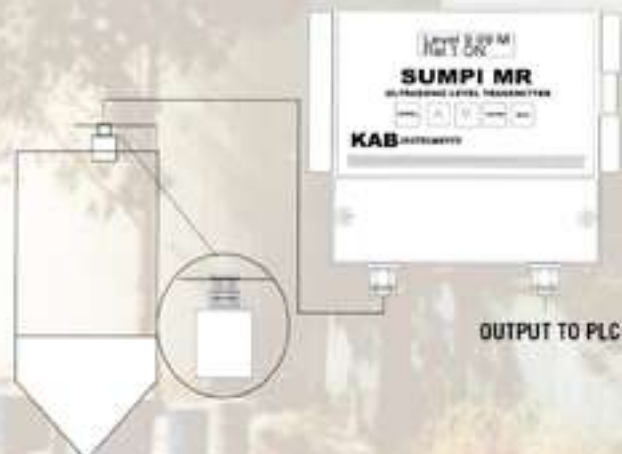


Applications



Solids

Liquids



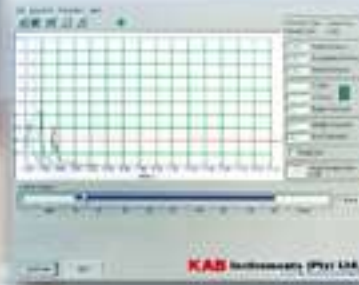
With KAB Instruments It's EAZI, EAZI, EAZI. EAZI to install with the aiming kit. EAZI to configure with the menu display. EAZI to fault find with the KABSCOPE.



KABSCOPE



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



Aiming Kit

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

Long Range Transducer

The KAB 20 is capable of measuring liquids and solids up to a range of 30m.



Ordering Code

Choose KAB 10, KAB 20 transducer

SUMPI MR **KAB 10**

KAB 10	
KAB 20	

Transducer Ranges

KAB 10
Liquids 15m
Solids 5m

KAB 10 T
Corrosive
Liquids 15m

KAB 20H
Powders 30m

KAB 10 F
Solids 15m

KAB 20
Liquids 30m
Solids 30m

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