# AET controls

AHHSONIC3000 ULTRASONIC LEVEL METER

Principle of Operation

The AHHsonic3000 range of compact ultrasonic level transmitters are designed to measure liquid and solids levels up to a range of 20 meters. The range can be configured by the keyboard and display. The AHHsonic3000 is mounted on top of the vessel or tank. The microprocessor in the AHHsonic3000 fires an electronic pulse, which the transducer converts into an acoustic pulse. The pulse travels to the level that is being measured and is reflected back to the transducer. The transducer then converts its energy back into an electronic signal and stops the counter in the microprocessor, which then knowing the speed of sound through the air, can accurately determine the distance.

Specification

Power supply: DC24V/AC220V   Current output; 4-20mA
Measuring range: 0-20m   Blank zone: 0.3-0.8m
Distinguish rate: 1mm   Accuracy: 0.25%
Ambient temperature: -25-60℃   Protecting class: IP65

Dimensions
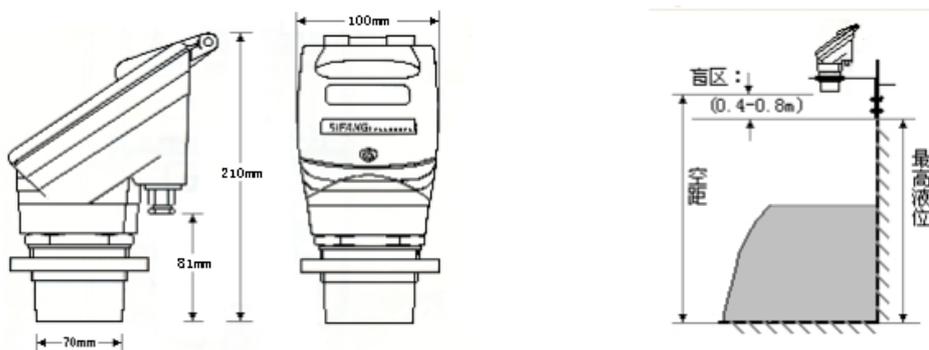
Installation

AHHsonic3000 series can be mounted easily using fixing screw, please notice:
1   The unit should be installed higher than the highest
   Level of liquid surface to avoid the Blanking zone, and exactly perpendicular to liquid surface.
2. When necessary insert a rubber gasket between the flange of tank and pvc

flange in order to cut off   noise source.

3. When installation, the unit should be mounted far away from wall of tank because of angle of beam.

Operating

Menu introduction

1. main menu: display the measuring result and go into next menu code.
2. second layer: display following max distict\measuring range\blank zone\changing rate measuring data \ display\ relay1 and relay 2 open dot and close dot.

Key description:

SCR scroll to access the programming and then to run through the various

commands. SET press this key to enter the edit; when displaying, cursor

blinks, then press to increase.

▷ move next to right SET and ▷ also can mode

ENT/RUN   After above operating, press this key, repeat to   return main menu.

Specification set

1. SCR → SET ⇄ ▷ → ENT/RUN → ENT/RUN

2. press SCR display code menu PASSWORD now use SET and

▷   to input second menu code'3456' press ENT/RUN confirm   and enter next

2.1 MAX_DIST & FULL   first number is max distance,(that is the max distance
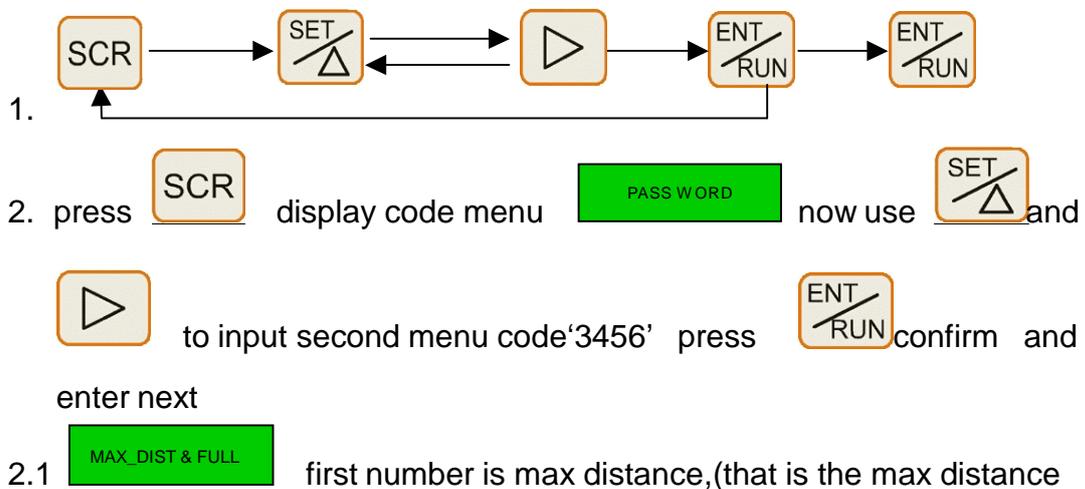
from sensor to bottom of tank);second number is the highest level(at max

measuring range ,output is 20mA). Press ![SET/△] to mode use ![SET/△] and

![▷] to change then press ![ENT/RUN] confirms if press ![SCR] to return

main menu press ![SET/△] to enter next menu.

others data:

`Blanking dist` blank mode the min distance from sensor to level that the unit cannot operate.(30cm-60cm)
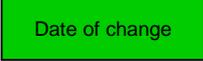
`Date of change` increase the number if the level moves faster than 1m and decrease it if a more stable output is required.

`Dist(0)    Level(1)` '00'distance '01'levle '02'distance not display relay '03'level also not display relay '06' distance display with signal '07'level display with signal example when moding'01' main display as following

`Level=01.500m` 500mis level 1 is high relay 2 is low relay on and off is relay dot only display at no signal

`R1  UP_ON DW_OFF` high alarm ,1: NO 2:NC

`R2:DW_ON   UP_OFF` low alarm, 1:NC 2:NO

Code Selection

AHHSonic 3000 ultrasonic level transmitters							
Code	Type						
P	Common LED Display						
Z	Smart 16X2LCD Display						
	Code	Measuring range					
	030	3m					
	050	5m					
	080	8m					
	0100	10m					
	0120	12m					
	0150	15m					
	0200	20m					
	0250	25m					
		Code	Type				
		Y	Integral type				
		K	Remote type				
			Code	Connecting			
			M	Screw connecting			
			F	Flange connecting			
				Code	Anticorrosive type		
				N	Normal		
				V	Anticorrosive type		
					Code	Output	
					E	4~20mA	
					J	Relay output	
					R	RS-485(Smart type)	
						Code	Power supply
						D	24VDC(integral type)
						A	220VAC remote type