



ARANKA

Solution
with **Perfection**



ARANKA

USER MANUAL

ACT 96

CONDUCTIVITY/TDS

CONTROLLER

Ver. 1.0



CE -2209

ISO 9001:2015 COMPANY



TERMINAL CONNECTION FOR CELL K 0.1

1	L	POWER 230 LINE
2	N	POWER 230 NEUTRAL
3	E	EARTH
4	-NA-	
5	-NA-	
6	-NA-	
7	NO R2	NORMAL OPEN FOR RELAY 2
8	C R2	COMMON FOR RELAY 2
9	NO R1	NORMAL OPEN FOR RELAY 1
10	C R1	COMMON FOR RELAY 1
11	+ 4-20mA CH1	CHANNEL 1 4~20mA OUTPUT POSITIVE
12	- 4-20mA CH1	CHANNEL 1 4~20mA OUTPUT NEGATIVE
13	- NA -	
14	- NA -	
15	CELL [BLUE COLOR]	BLUE WIRE FROM COND CELL
16	CELL [YELLOW COLOR]	YELLOW WIRE FROM COND CELL
17	RTD[PT-100]	RED WIRE FROM COND CELL
18	RTD[PT-100]	BLACK WIRE FROM COND CELL
19	RTD[PT-100]	GREEN WIRE FROM COND CELL
20	-NA -	
21	-NA -	
22	-NA -	
23	-NA -	
24	-NA -	
25	-NA -	
26	-NA -	
27	-NA -	
28	-NA -	
29	+ RS 485	RS 485 MODBUS RTU +
30	- RS 485	RS 485 MODBUS RTU -



TERMINAL CONNECTION FOR CELL K 1

1	L	POWER 230 LINE
2	N	POWER 230 NEUTRAL
3	E	EARTH
4	-NA-	
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7	NO R2	NORMAL OPEN FOR RELAY 2
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11	+ 4-20mA CH1	CHANNEL 1 4~20mA OUTPUT POSITIVE
12	- 4-20mA CH1	CHANNEL 1 4~20mA OUTPUT NEGATIVE
13	- NA -	
14	- NA -	
15	- NA -	
16	CELL	CONDUCTIVITY SENSOR BLUE WIRE
17	CELL	CONDUCTIVITY SENSOR YELLOW WIRE
18	RTD[PT-100]	CONDUCTIVITY SENSOR RED WIRE
19	RTD[PT-100]	CONDUCTIVITY SENSOR BLACK WIRE
20	RTD[PT-100]	CONDUCTIVITY SENSOR GREEN WIRE
21	-NA -	
22	-NA -	
23	-NA -	
24	-NA -	
25	-NA -	
26	-NA -	
27	-NA -	
28	-NA -	
29	+ RS 485	RS 485 MODBUS RTU +
30	- RS 485	RS 485 MODBUS RTU -



MODBUS RTU ADDRESS

1	40001	CONDUCTIVITY /TDS PRESENT VALUE
2	40002	TEMPERATURE PRESENT VALUE
3	40003	CONDUCTIVITY /TDS SET POINT 1 VALUE
4	40004	CONDUCTIVITY /TDS SET POINT 2 VALUE

DECODING MANNER OF MODBUS RTU

IF YOU GENERATE COMMAND FOR ONLY 40001 THE ANSWER WILL COME WITH ALL 4 NOS VALUE.IT WILL OCCUPY 4 NOS HOLDING RESISTERS COMPULSORY.

Example :

you need To Read only Conductivity The Command is 40001 but for Rest of 40002,40003, 40004 you can not use for other readings. for that you have to change id.



SPECIFICATIONS

POWER	: 90~260VAC , 50HZ
RANGE	: 0~10uS/0~200uS/ 0~2000uS /0~20mS [FACTORY SET]
RESOLUTION	:0.01uS/0.1uS/ 1uS/ 1mS
ACCURACY	: $\pm$ 2% FSD
DIGITAL OUTPUT	: 5A, 1CO, RELAY
DISPLAY	: SEGMENT LED
BODY	: ABS
OUTER DIMENSIONS	: 96x96x85mm
CUTOUT DIMENSIONS	: 92x92mm

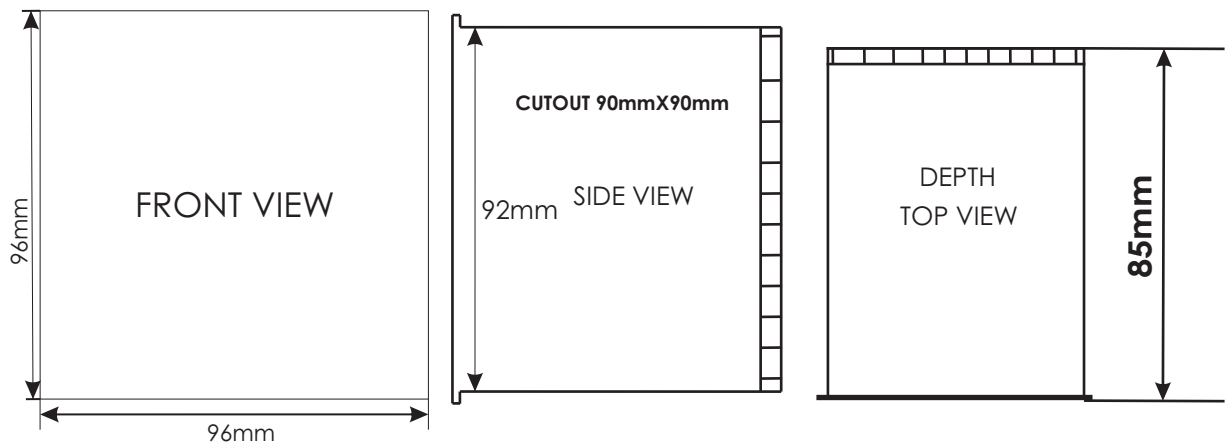
KEY FUNCTION

	TO SET CONDUTIVITY CONTROLLING VALUE
	TO ENTER MENU
	TO INCREASE VALUE & IT WILL SCROLL 0 TO 9
	TO SHIFT DIGIT
	FOR START CALIBRATION
	TO SAVE DATA IN CALIBRATION MENU& SET POINT



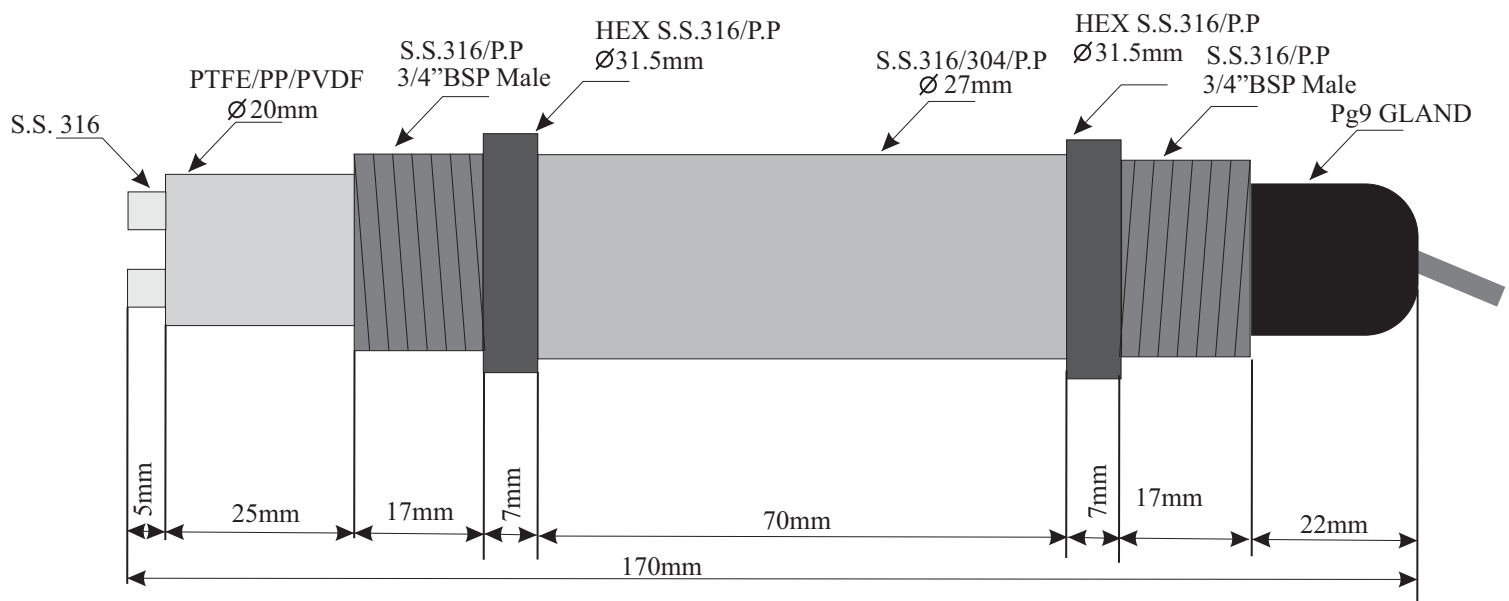
DIMENSION

Conductivity Controller

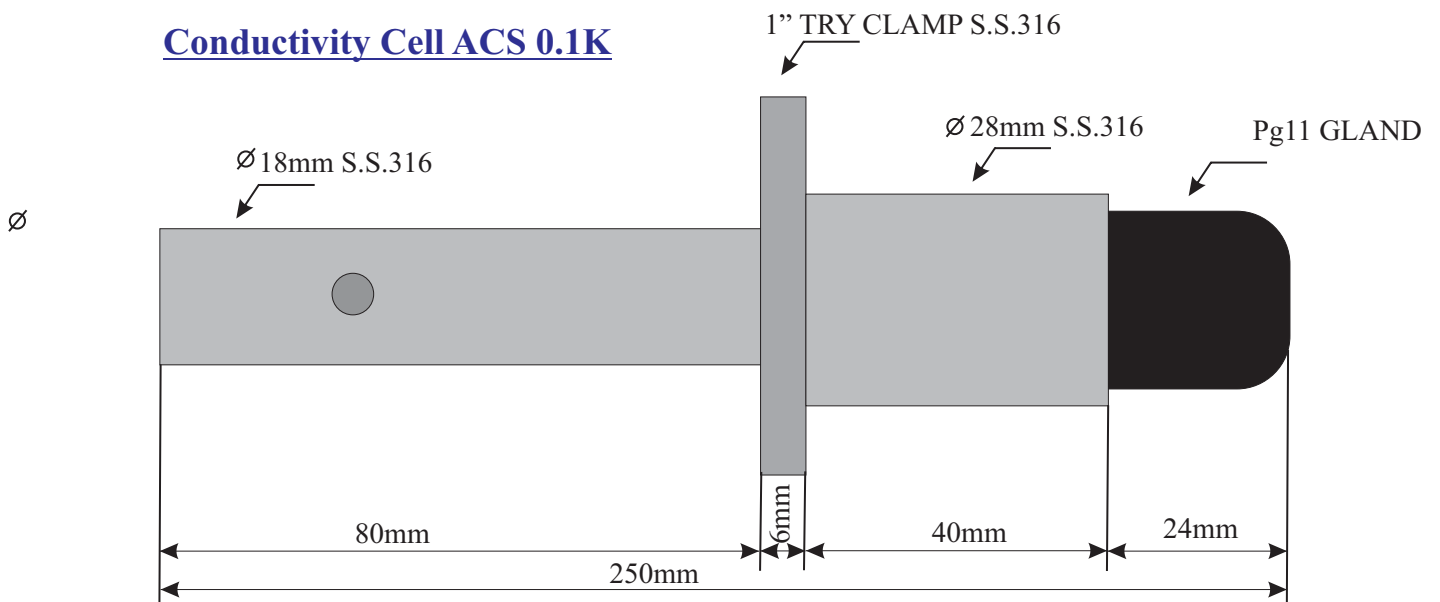


Conductivity Cell [Sensor]

Conductivity Cell ACS 1K

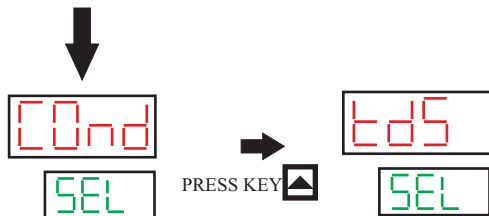


Conductivity Cell ACS 0.1K

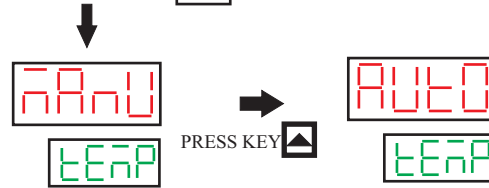


CONDUCTIVITY / TDS MENU FUNCTIONS FLOW CHART

PRESS KEY **PROG** FOR 5 SECONDS

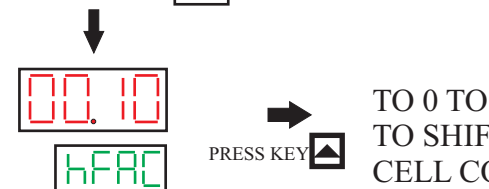


PRESS KEY **PROG**



PRESS KEY 

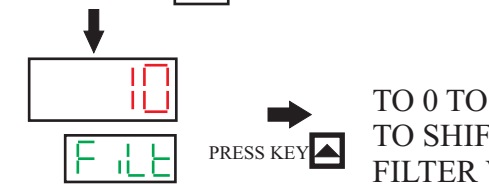
PRESS KEY **PROG**



PRESS KEY 

TO CHANGE TEMPERATURE COMPENSATION
AUTO MODE OR MANUAL MODE

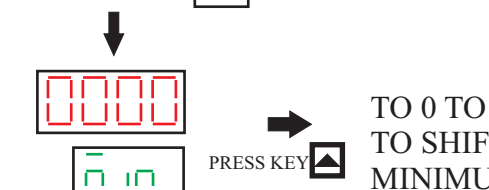
PRESS KEY **PROG**



PRESS KEY 

TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT AND SET DESIRE SET
CELL CONSTANT 'K'

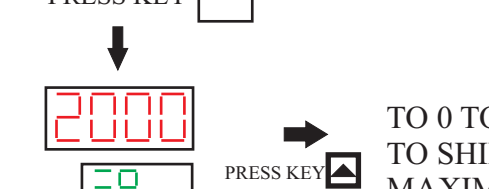
PRESS KEY **PROG**



PRESS KEY 

TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT AND SET DESIRE SET
FILTER VALUE FOR READING.

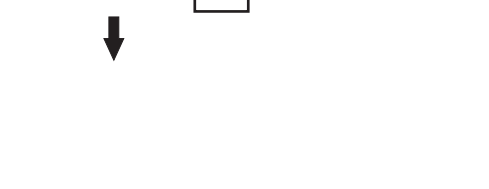
PRESS KEY **PROG**



PRESS KEY 

TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT AND SET DESIRE SET
MINIMUM RANGE VALUE.

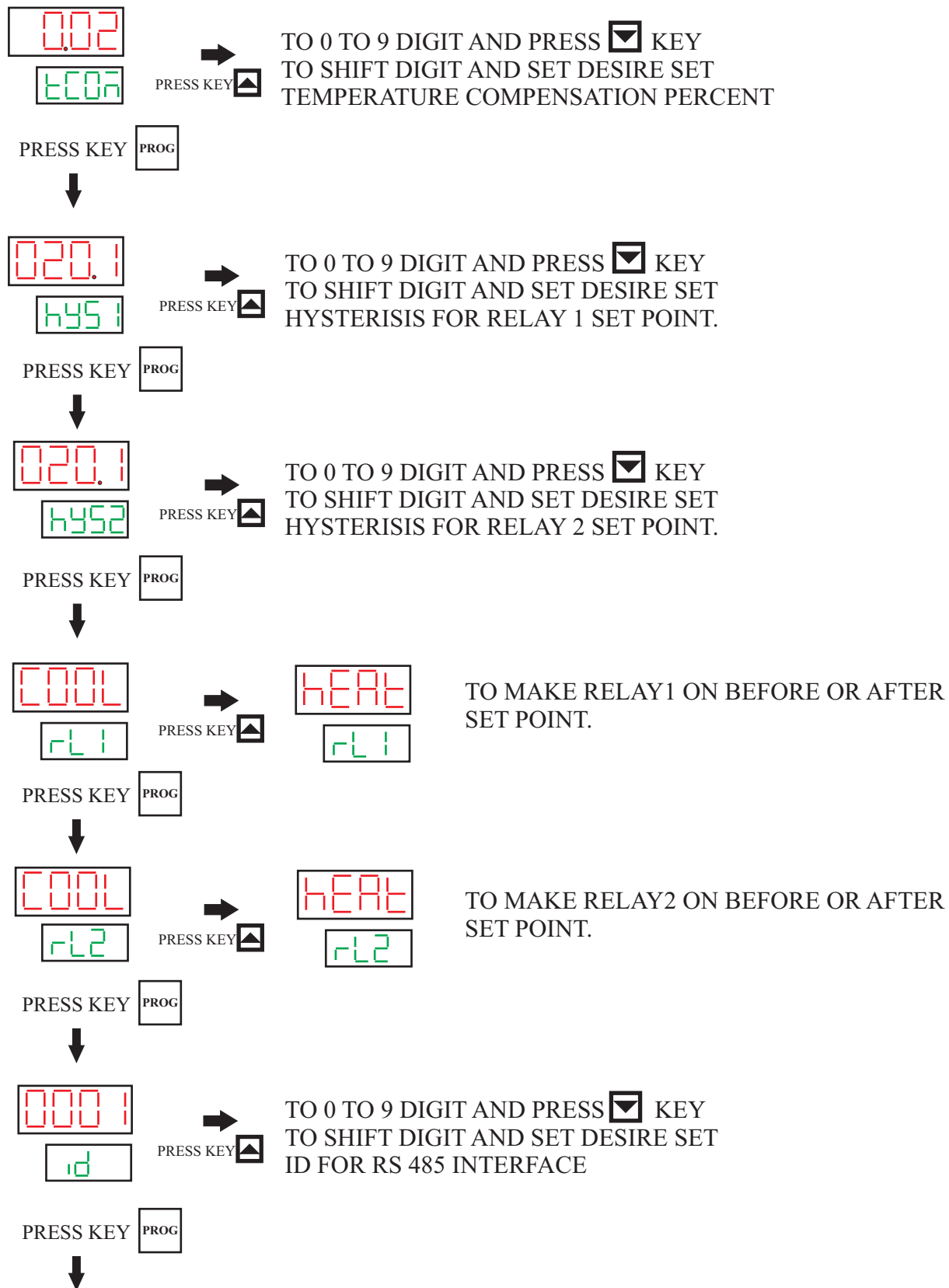
PRESS KEY **PROG**



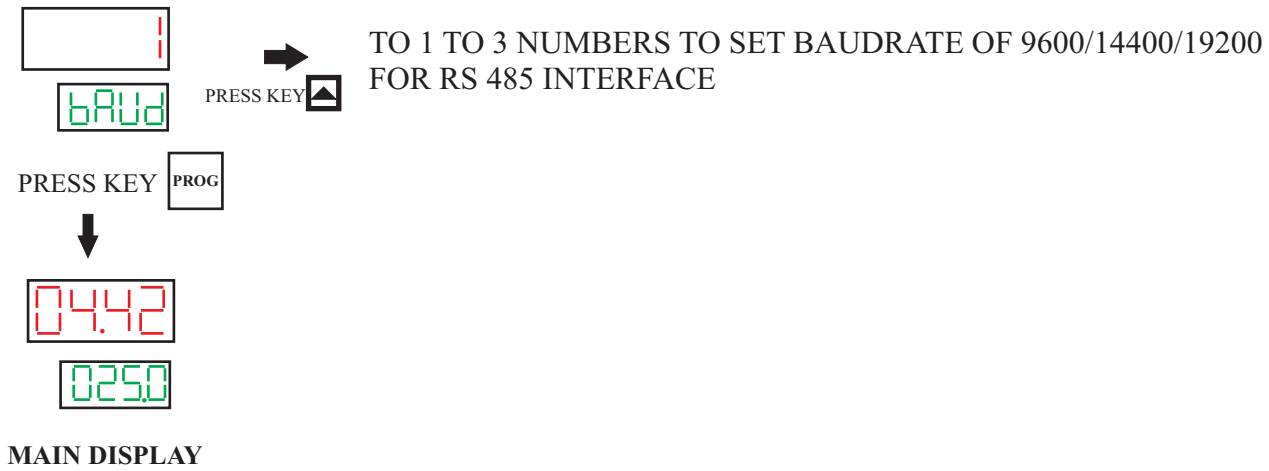
PRESS KEY 

TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT AND SET DESIRE SET
MAXIMUM RANGE VALUE.

CONDUCTIVITY / TDS MENU FUNCTIONS FLOW CHART



CONDUCTIVITY / TDS MENU FUNCTIONS FLOW CHART



CONDUCTIVITY / TDS MENU FUNCTIONS DESCRIPTION

Cond

SEL

TO SET AS CONDUCTIVITY CONTROLLER

TDS

SEL

TO SET AS TDS CONTROLLER

MANU

TEMP

TO MAKE TEMPERATURE COMPENSATION IN MANUAL MODE

AUTO

TEMP

TO MAKE TEMPERATURE COMPENSATION IN AUTO MODE

00.10

KFAC

CELL CONSTANT K ENTRY AS PER RANGE REQUIRE

10

FILT

TO FILTER PV VALUE TO MAKE READING FILTER

0000

Min

TO SET MINIMUM RANGE VALUE FOR CONDUCTIVITY

2000

MA

TO SET MAXIMUM RANGE VALUE FOR CONDUCTIVITY

0.02

TEMP

TO SET TEMPERATURE COMPENSATION PERCENTAGE

020.1

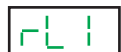
HYST

TO SET RELAY 1 SET POINT HYSTERESIS

CONDUCTIVITY / TDS MENU FUNCTIONS DESCRIPTION



TO SET RELAY 2 SET POINT HYSTARISIS



TO SET RELAY 1 ON BEFORE OR AFTER SET POINT



TO SET RELAY 2 ON BEFORE OR AFTER SET POINT



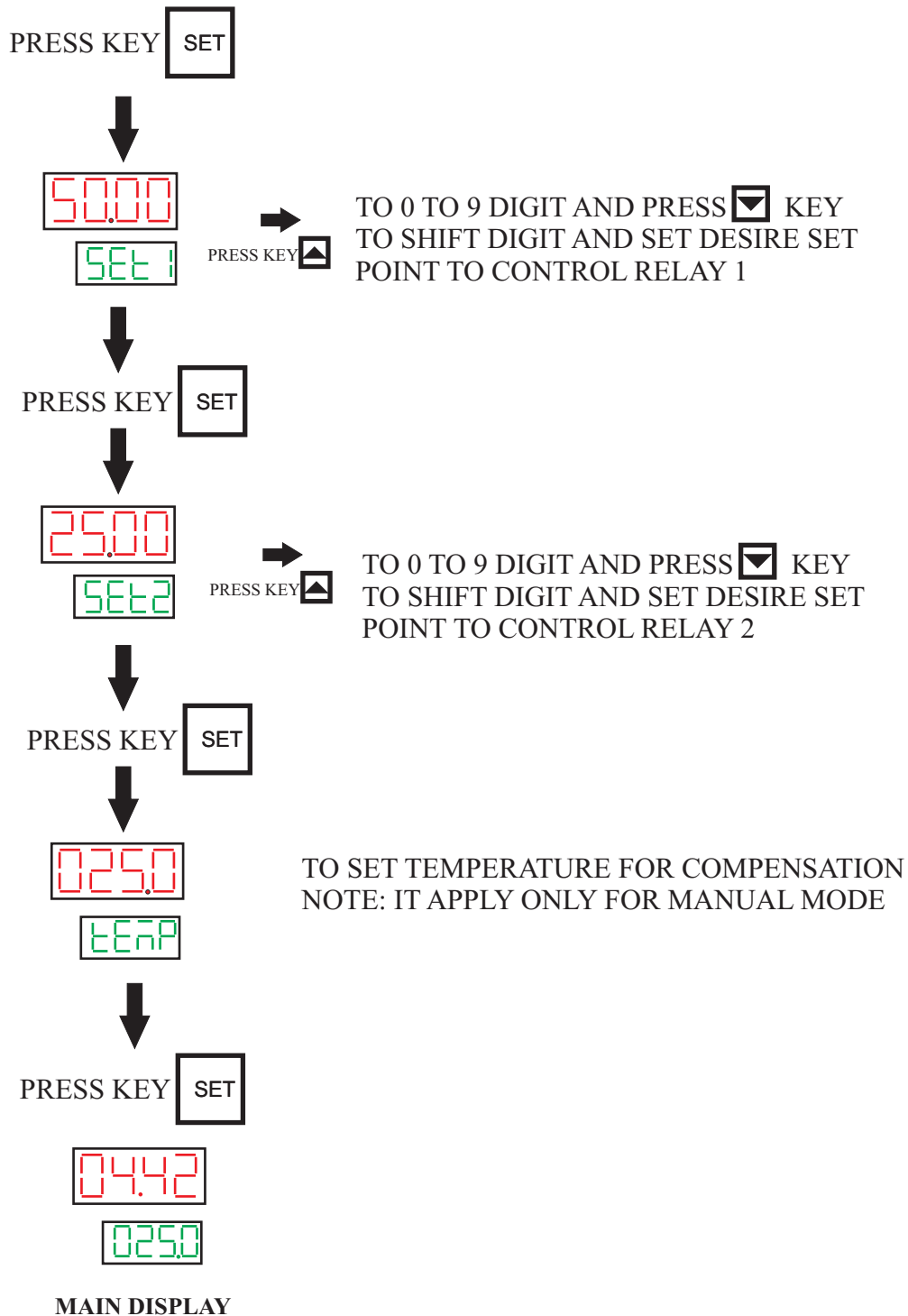
TO SET ID FOR RS 485 INTERFACE



TO SET BAUDRATE 9600 /14400 /19200



CONDUCTIVITY / TDS SET POINT FUNCTION





CALIBRATION

PRESS KEY



PRESS KEY



TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT OR CHANGE SIGN OF
MINUS OR PLUS AND SET DESIRE
OFFSET FOR DISPLAY VALUE FOR ORP

PRESS KEY



PRESS KEY



TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT OR CHANGE SIGN OF
MINUS OR PLUS AND SET DESIRE
OFFSET FOR DISPLAY VALUE FOR
TEMPERATURE

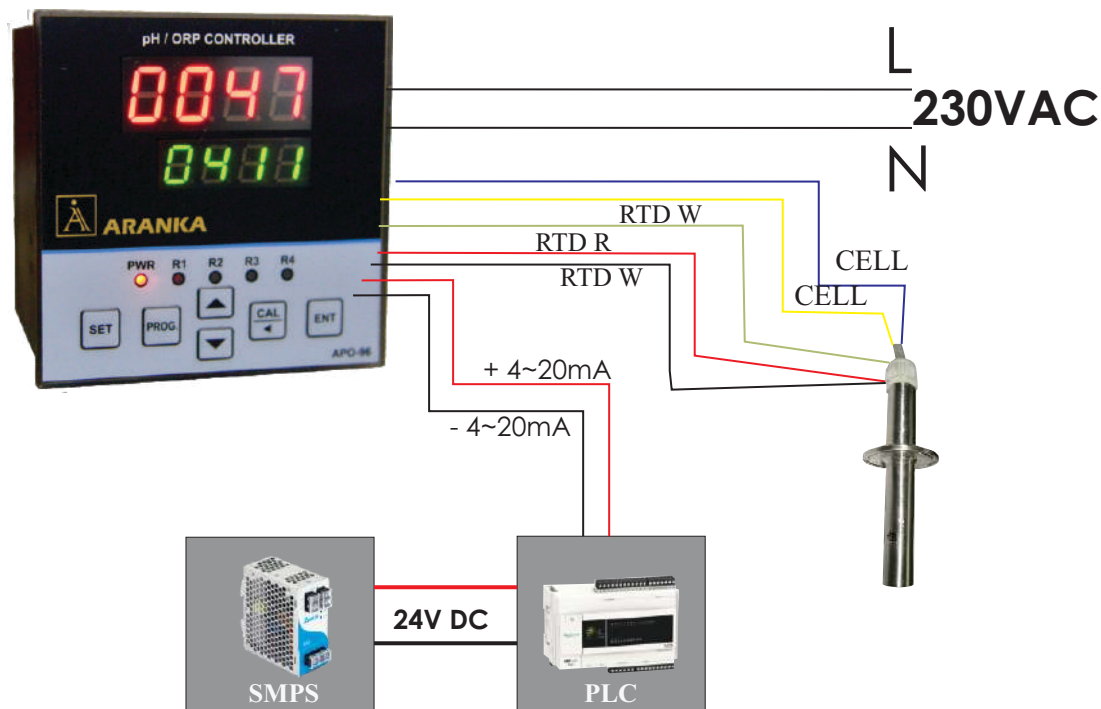
PRESS KEY



MAIN DISPLAY

**ARANKA**Solution
with **Perfection**

WIRING DIAGRAM

**SR NO:** _____**ARANKA** INSTRUMENTS **LLP**

FACTORY :
50, NILKANTH INDUSTRIAL PARK,
AMBIKA TUBE COMPOUND,
NEAR OVER BRIDGE VATVA, GIDC,
Vatva, Ahmedabad - 382445.

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