

1. Operation panel /Dimension /Terminal layout /Connection diagram



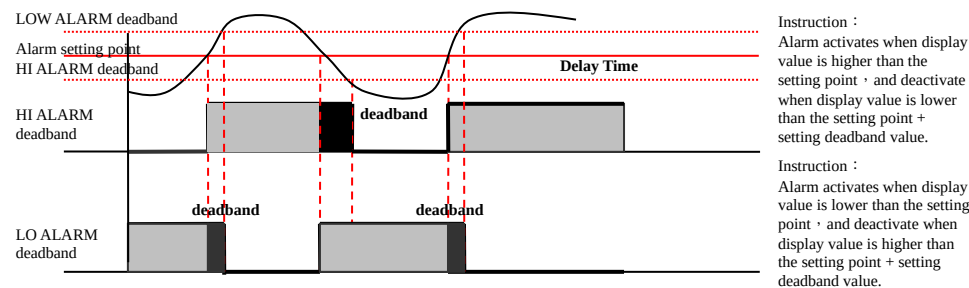
3.Settings (In below setting instructions,**P** means press)

Display	Function	Instructions
	Input Mode	Press > to select 4-20mA/0-20mA or 0-10V/1-5V/0-5V
	Display Low	Press > and Δ to set the lowest display value. Range: 0~9999
	Display High	Press > and Δ to set the highest display value. Range: 0~9999
	Decimal Point	Press > to set decimal point position. 888.8
	Analog Output	Press > to select 4-20mA/0-20mA or 0-10V/1-5V/0-5V Press S to enter OP-HI , press Δ to set output corresponding value(Hi) Press S to enter OP-Lo , press Δ to set output corresponding value(low) (Note: output current and voltage can't exchange)
	RS485 Output	Press Δ to enter setting. Press > and Δ to set address: 1-255 Press S to enter setting. Press > to set baudrate: 9600- 19200- 38400- 57600 Press S to enter setting. Press > to set: Bn 1-Bn2- Bn 1-Bn2- BE 1-BE2
	No Function	No need to set
	Save Setting	Press Δ to enter no Press > to select YES , press S to save setting.

Long press "S" and press "S" to enter setting. Press > and ^ to set.

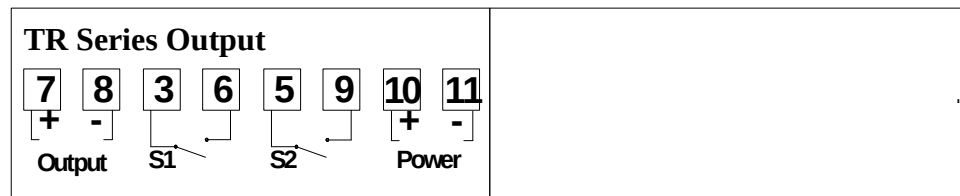
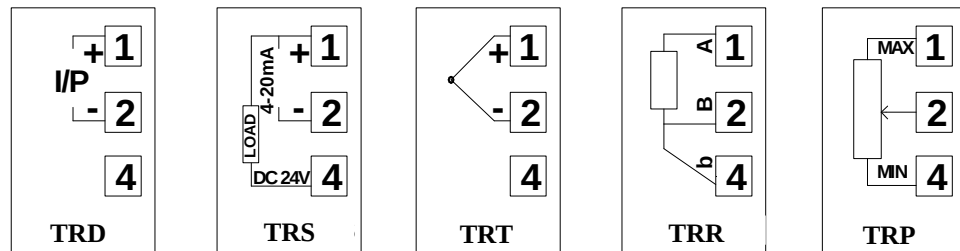
5. Relay function explanation

1.Hi and low alarm setting and delay time function.



TR SERIES COMMUNICATION TRANSMITTER

6.Connection diagram



7.Communication setting

MODBUS - RTU MODE PROTOCOL

Data format (HEX)

(ID Number) 1Byte	(Function Code) 1Byte	(Data) N Byte	CRC 2 Byte
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Function code

03 (03H)	Read parameters of the meter
06 (06H)	Set parameter.

EX1: Read the display value of DS1 meter

Master sends: Tx: 01 03 00 01 00 02 95 CB				
ID number 1Byte (01H)	Function code 1Byte (03H)	Address 2Byte (00 01H)	Data number 2Byte (00 02H)	CRC 2Byte (95 CBH)

Instruction : Master calls meter ID No.1 to read address 0002.Data number 0001

If meter displays 90000

Meter responses to Master RX : 01 03 04 5F 90 00 01 29 CA				
ID Number (01H)	Function (03H)	Byte (04H)	Data (5F 90 : 00 01H)	CRC (29 CAH)

Ex2. Read parameters of the Meter

Master sends message to Meter				
ID Number 1Byte (01H)	Function 1Byte (03H)	Address 2Byte (00 02H)	DATA number 2Byte (xxH,xxH = N)	CRC 2Byte (xxH,xxH)
Meter responses to Master				
ID Number (01H)	Function (03H)	Byte (XXH = N)	Data (N*2Byte) XxH.xxH.xxH.....	CRC (xxH,xxH)

8.Parameter/Address cross-reference

Add ress	Length	Name	Instruction	(Read/Write)
00	No function			
01	2Byte	Display value	(Signed) Range:-1999 – 9999	R
02	No function			
03	2Byte	Decimal point	(Unsigned) 1~4 digit after the decimal point	R/W
04	2Byte	Alarm state	Bit1=RY2 Bit0=RY1 (0=OFF , 1=ON)	R
05	2Byte	Display value(HI)	(Signed) Range:-1999 – 9999	R/W
06	No function			
07	2Byte	Display value(LO)	(Signed) Range:-1999 – 9999	R/W
08	No function			
09	2Byte	Output corresponding value(HI)	(Signed) Range:-1999 – 9999	R/W
10	No function			
11	2Byte	Output corresponding value(LO)	(Signed) Range:-1999 – 9999	R/W
12	No function			
13	2Byte	RY1 setting value	(Signed) Range:-1999 – 9999	R/W
14	No function			
15	2Byte	RY2 setting value	(Signed) Range:-1999 – 9999	R/W