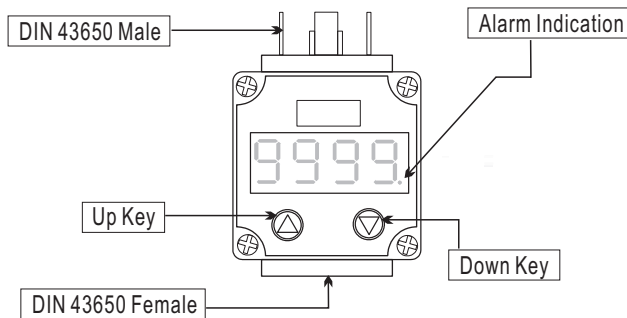
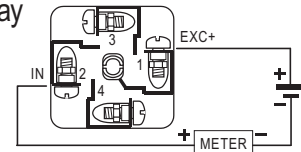


\* Please understand key indicators & functions at the first operation.

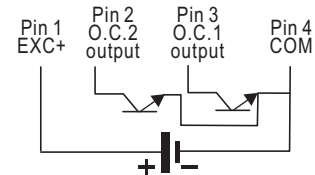
## FRONT PANEL & KEY FUNCTIONS



### ● Simple Display



### ● 2 Open collect output



Key Name	Symbol	Descriptions
Up Key	⬆	1. In the parameter setting, press this key can move the cursor left.
Down Key	⬇	1. In the parameter setting, press this key can increase the digits.
Combination Key	⬆ + ⬇	1. In the measuring status, press this key can enter to parameter pages. 2. In the parameter setting, press this key can save the value & go to next page.

- \*\*1. The following block charts are parameters codes, parameter codes & parameters will alternate flashing if the parameters can be modified.  
2. To modify the parameters, please press ⬆ or ⬇, and press ⬆ & ⬇ to save the parameters after the modification.

## GENERAL MODE OPERATING PROCEDURES

Block Charts	Display	Descriptions	Default	
Power On	1000	Measuring Status	Present value for measurement.	0000
Press ⬆ + ⬇	SEt2	Display Low Scale Setting (SEt2)	Press ⬆⬇ to modify display low scale for the input signal zero value. EX: If the input signal is 4~20mA; 4mA is shown display 0.00, this parameter must be set for 000.00.	Customers specify
Press ⬆	SEt5	Display Hi Scale Setting (SEt5)	Press ⬆⬇ to modify display high scale for the input signal span value. EX: If the input signal is 4~20mA; 20mA is shown display 100.00, this parameter must be set for 100.00.	Customers specify
Press ⬆	dot	Decimal Point Setting (dot)	Press ⬆⬇ to select decimal point (0, 1, 2, 3, 4).	0000
Press ⬆	dAP	Display Average Setting (dAP)	Press ⬆⬇ to modify display average (0~20s). (0.5s per time)	0000
Press ⬆	HlLo	Alarm Function Setting (HlLo)	Press ⬆⬇ to select the alarm function. (ON or OFF)	on
Press ⬆	SEPL	Alarm 1 Percentage Setpoint (StPL)	Press ⬆⬇ to modify alarm 1 percentage setpoint. (0~100.0%)	0000
Press ⬆	SEPH	Alarm 2 Percentage Setpoint (StPH)	Press ⬆⬇ to modify alarm 2 percentage setpoint. (0~100.0%)	0000
Press ⬆	LdIr	Alarm 1 Action Setting (LdIr)	Press ⬆⬇ to modify alarm 1 value that is $\geq$ (Hi) or $<$ (Lo) for alarm action.	UP
Press ⬆	HdIr	Alarm 2 Action Setting (HdIr)	Press ⬆⬇ to modify alarm 2 value that is $\geq$ (Hi) or $<$ (Lo) for alarm action.	dn
Press ⬆	HSt	Alarm Run Delay Setting (Hst)	Press ⬆⬇ to modify the value, when the display value reach the alarm value that need to wait for this time (0~30 sec) for alarm action.	0000

# MODBUS Pressure Transmitter Communication Protocol

## Communication format:

### *I. Read command format (03 function code) example:*

#### A. Send Read command format

Register Address	function code	Register High Address (H)	Register Low Address (L)	Register Quantity High Byte (H)	Register Quantity Low Byte (L)	CRC16 (L)	CRC16 (H)
0X01	0X03	0X00	0X00	0X00	0X01	0X84	0X0A

#### B. Return Read data format:

Register Address	function code	Data Bytes	data (H)	data (L)	CRC16 (L)	CRC16 (H)
0X01	0X03	0X02	0X00	0X01	0X79	0X84

### *II. Write command format (06 function code) example*

#### A. Send write command format

Register Address	function code	Register High Address (H)	Register Low Address (L)	Register Quantity High Byte (H)	Register Quantity Low Byte (L)	CRC16 (L)	CRC16 (H)
0X01	0X06	0X00	0X00	0X00	0X02	0X08	0X0B

#### B. Return write data format example:

Register Address	function code	Register High Address (H)	Register Low Address (L)	Register Quantity High Byte (H)	Register Quantity Low Byte (L)	CRC16 (L)	CRC16 (H)
0X01	0X06	0X00	0X00	0X00	0X02	0X08	0X0B

### *III. Abnormal response return*

Register Address	function code	Abnormal code	CRC16 (L)	CRC16 (H)
0X01	0X80+ function code	0x01(illegal function ) 0x02( illegal data address) 0x03(illegal data)		

## Supported command, meaning of command and data

**MODBUS-RTU protocol command list is as follows:**

function code	Register High Address	Register Quantity High Byte	Data byte	Data scope	Command meaning
0x03 function code read data					
0x03	0x0000	1	2	1-255	Read slave address
0x03	0x0001	1	2	0-1200 1-2400 2-4800 3-9600 4-19200 5-38400 6-57600 7-115200	Read Baud rate
0x03	0x0003	1	2	0-#### 1-###.# 2-##.## 3-#.###	Decimal point stands for 0-3 digits decimal points
0x03	0x0002	1	2	0- Mpa/°C 1- Kpa 2- Pa 3- Bar 4- Mbar 5- kg/cm <sup>2</sup> 6- psi 7- mh <sup>2</sup> o 8- mmh <sup>2</sup> o	Pressure unit
0x03	0x0004	1	2	-32768-32767	Measurement output value
0x03	0x0005	1	2	-32768-32767	Zero point of transmitter range
0x03	0x0006	1	2	-32768-32767	Full point of transmitter range
0x03	0x000c	1	2	-32768-32767	Zero point offset value, generally factory sets as 0.
0x06 function codes write data					
0x06	0x0000		2	1-255	Write slave address
0x06	0x0001		2	0-1200 1-2400 2-4800 3-9600 4-19200 5-38400 6-57600 7-115200	Write Baud rate
0x06	0x000c		2	-32768-32767	Zero point offset value* pressure

					output value= calibration measurement value + Zero point offset value
Save and factory reset					
0x06	0x000F		2	0- save to user area	
0X06	0x0010		2	1- factory reset	

### Connection mode

Red: V + ; Green: V- ; yellow:RS485 A ; blue:RS485 B