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7215
DATA OUTPUT CABLE
OPERATION MANUAL



Introduction

1. Data transfer cable length: 2.5m or 3.0m
2. Signal Output Methods:
 - Communication method: RS485
 - Baud: 9600bps(can be set to19200bps/ 38400bps)
 - Check digit: None
 - Data bit: 8
 - Stop bit: 1
 - Communication protocols: Modbus-RTU
 - Output code: hexadecimal
3. Main commands:
 - Get device address: FF 03 30 10 00 01 9F 11
Return data: FF 03 02 00 01 50 50
The 4th and 5th bytes are addresses, This data line address is 01
 - Readout command: FF 03 30 02 00 02 7F 15
FF 03 3002 0002 6A CB
Address Function Register Number CRC checksum
code Starting Address of registers
Return data: FF 03 04 50 01 02 87 E4 3E
FF 03 04 50010287 E4 3E
Address Function Data item Measurement data CRC check code
code
 - Get device serial number: FF 03 30 00 00 02 DE D5
Return data:FF 03 04 00 30 F3 41 61 33
Serial number unsigned, Integer representation,
For example: 0x0030F341 Indicates a sequence number of 3208001
 - Setting the baud rate
For example: Set the baud rate to 9600: FF 06 30 12 00 00 33 11
Set the baud rate to 19200: FF 06 30 12 00 03 73 10
Set the baud rate to 38400: FF 06 30 12 00 04 32 D2

- Change of address:
For example: Modify the address to 0X01 : FF 06 30 10 00 01 53 11
Modify the address to 0X02 : FF 06 30 10 00 02 13 10
 - Description of the data format:
Address: 01--FF, 0xFF is universal address,Can read/write parameter information of any device
Function code: 03--Read device data 06--Write device data
Measurement data: Actual measurement data, see below for analysis of measurement data.
4. Measurement Data Analysis

Typical example	The measured data are: 50010287										
Nibbles	DAT[0]				[1]	[2]	[3]				
Seat	Bit7	Bit6	Bit5	Bit4	Bit3-0						
Define	mm=0 inch=1	+ =0 - =1	=1Shift the decimal point 1 place to the right	=0 unpressed button =1 pressed button	high	high	high	middle	middle	low	low
Hexadecimal	5				0	0	1	0	2	8	7
Binary	0	1	0	1							
Note	Bit7=0 is mm, Bit6=1 is negative number, Bit4=1 Press the capture button Bit5=0, inch: Displays 5 decimal places, mm: Displays 3 decimal places										
Actual measured value	-10.287mm										

5. Pin Definition:



Pin Colour	notation	Functional Description
red	VCC	power supply(+8~28V)
white	A+	data
green	B-	data
black	GND	earth wire