HART Series Products

Modbus to HART Gateway

RoHS CE FC

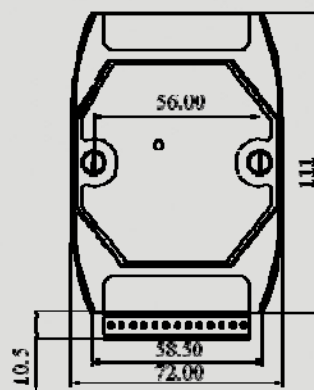### HART-710

Dimensions

The HART-710 Gateway is specially designed for the master device of HART protocol. It allows the Modbus master device to access the HART slave devices. These HART devices may be a transmitter, an actuator, a current output device and so forth. In addition, we also provide the utility software for users to configure the HART-710. By using this module, users can integrate their HART device into Modbus network easily.

Features

- Support HART Short/Long frame
- Support HART Burst mode
- Allow two HART Masters
- Working in point-to-point or multi-drop HART mode
- Connecting up to 16 HART modules
- Support Modbus RTU and ASCII format
- Support Modbus Slave mode
- Isolated COM 1: RS-232/422/485
- Provide LED indicators
- Built-in Watchdog
- 4KV ESD Protection

Utility Features

- Read/Write HART device by HART command
- Provide diagnostic Information
- Read/Write module configuration of the HART-710
- Show Modbus address of HART command

Modbus Support

- Only the following Modbus commands are supported by the gateway.
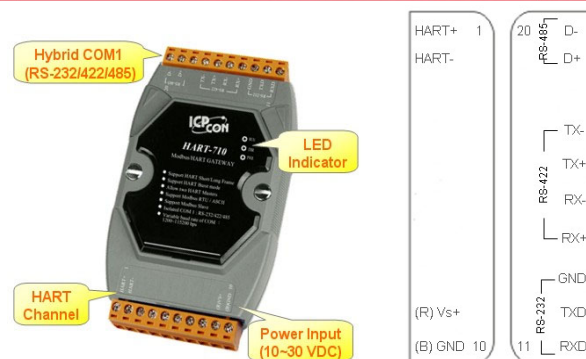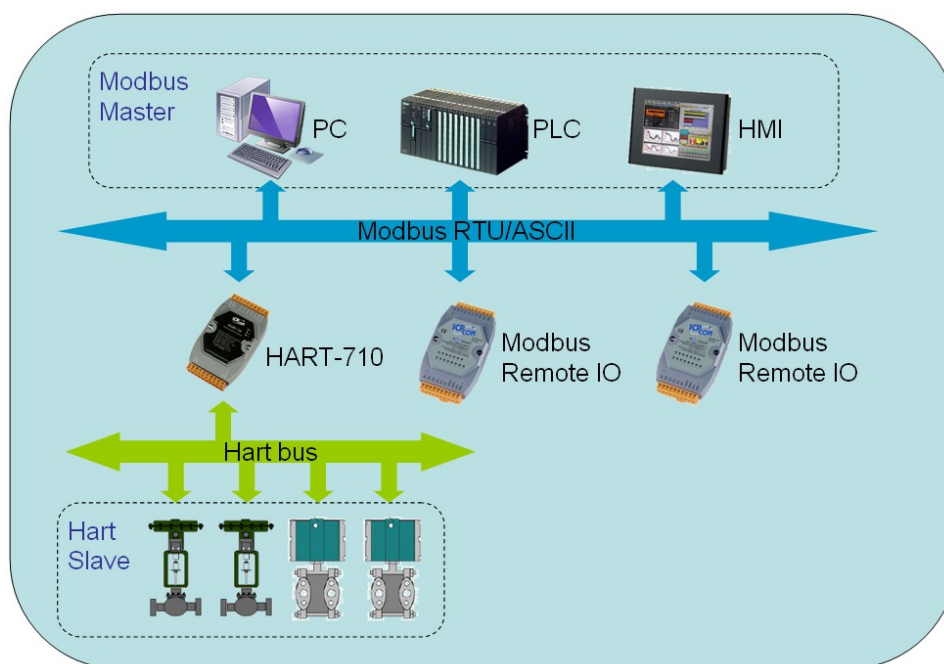
Code	Name	Description
01	Read Coil Status	Read the ON/OFF status of discrete outputs in the slave
02	Read Input Status	Read the ON/OFF status of discrete inputs in the slave
03	Read Holding Registers	Read the binary contents of holding registers in the slave
04	Read Input Registers	Read the binary contents of input registers in the slave
05	Force Single Coil	Write a single output to either ON or OFF in the slave
06	Preset Single Register	Write an integer value into a single register in the slave
15	Force Multi. Coils	Write each coil in the sequence of coils to either ON or OFF in the slave
16	Preset Multi. Registers	Write a block of contiguous registers in the slave

Pin Assignments

HART+	1	20	D-
HART-			D+
			TX-
			TX+
			RX-
			RX+
			GND
(R) Vs+			TXD
(B) GND	10	11	RXD

Hardware Specifications

Hardware	
CPU	32 bit, 100 MHz or compatible
SRAM/Flash/EEPROM	64 KB / 512 KB / 16 KB
Watchdog	Watchdog IC
ESD Protection	4 kV class A
UART Interface	
COM 1	RS-232(3 wire)/RS-422/RS-485
COM 1 Connector	9-pin screwed terminal block
Baud Rate (bps)	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Protocol	Modbus RTU / Modbus ASCII
HART Interface	
HART Interface	2-pin screwed terminal block
HART Channel	1
Power	
Power supply	Unregulated +10 ~ +30 V_{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	1 W
Mechanism	
Installation	DIN-Rail or Wall Mounting
Dimensions	72 mm x 33 mm x 122 mm (W x L x H) Detail
Environment	
Operating Temp.	-25 ℃ ~ +75 ℃
Storage Temp.	-30 ℃ ~ +85 ℃
Humidity	5% ~ 95% RH, non-condensing

Applications

Ordering Information

HART-710 CR	Modbus/HART Gateway (RoHS)