

HART MODEM

In the instruments industry, the traditional 4 – 20 mA analog transmitters are upgrading to the fieldbus with digital communication. HART fieldbus communication has digital communication capability with compatible analog signal. HART MODEM is a necessary and convenient tool for the analog products upgrading and signal exchanging in the control plant.

We provide two kinds of HART modem. **HART-RS232** is the converter for HART signal to RS-232 signal. **HART-USB** is the converter for HART signal to PC virtual series port.

Product Characteristic

- According to the HART physical layer specification
- Isolated transformer prevents the influence of earthing.
- Voltage signal modulator/demodulator
- Low power consumption designation
- Powered by series port or USB port
- Interface Type: DB9 female mount
- Ambient Temperature: 0 ~ 50 °C
- Compressive Strength :500 V AC HART bus and serial port(UART,USB)
- Receiving Impedance : $\geq 5\text{ K}\Omega$, end-to-end
- Output Signal VPP: $600\text{ mV} \geq \text{VPP} \geq 400\text{ mV}$, $500\ \Omega$ load resistance
- Receiving Sensitivity: 120 mV , $500\ \Omega$ test resistance



Configuration Kit for HART Modem

1. Easy to use
2. Compatible with all standard HART Instruments
3. LEDs for signaling the sending / receiving
4. No external power supply required
5. Standard USB/RS232 connection to PC
6. Galvanic isolation

Specifications

Power supply	No external power supply required
Galvanic isolation	500VAC between the device and the PC
Receiving Impedance	$\geq 5\text{K}\Omega$
Receiving Sensitivity	120mVpp
Output Amplitude	500mVpp(500 Ω)
Connector	USB/RS232 connector to PC 2 alligator clip on Transmitter
Cable length	USB/RS232 cable: 1.5m HART cable: 1.00 m

Housing

Weight	app. 125 g (include cable)
Modem Dimensions	60 x 45 x 14 mm

Environments

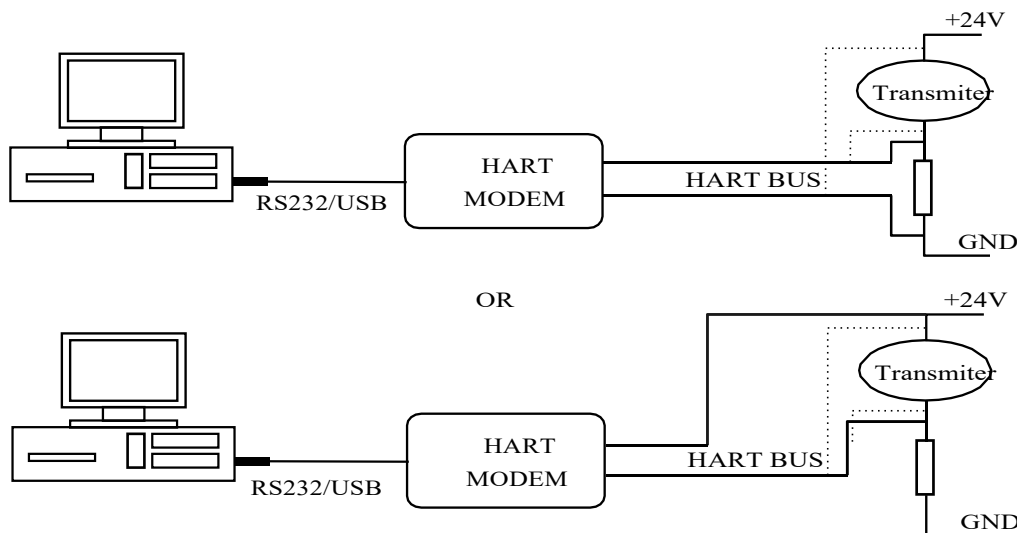
Operating temperature	0 to 50 °C
Storage Temperature	-40 to 80 °C
Humidity	0-95% (no condensation)

PC System

Operating System	Windows 98/ME/2000/XP/win7/win8
USB/RS232-Port	USB-Host/RS232

Usage Instruction:

HART Modem is the protocol converter between HART device and configurator on PC.



Connection Diagram

The figure above is a sample basic case. To connect multiple HART device, please connect the other devices parallel with the “Transmitter”. Please note that the power should support multiple devices and the terminator should be set in the middle of the power and parallel point.

HART-RS232 is a HART MODEM with voltage modulator/demodulator. To communicate with a HART device, please connect the clincher of HART port of HART-RS232 to the two terminals of the network adaptor resistance or the power of HART device. To communicate with a PC, please connect the other port of HART-RS232 to the series port of PC.

The USB driver installation program should be run for HART-USB. The driver provides a virtual series ports for HART configurator software.



The indication light shows the state of modem. Green LED indicates the power is working well and the modem is sending data. Red LED indicates the modem is receiving data.





YOUR FIELDBUS EXPERT

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