

Emerson Hart Communicator PEK275



Description

The HART (Highway Addressable Remote Transducer) Communicator PEK275 is a hand-held interface that provides a common communication link to all HART-compatible, microprocessor-based instruments. Your HART Communicator interfaces with any HART-compatible device from any wiring termination point using a 4–20 mA loop, provided a minimum load resistance of 250 ohms is present between the Communicator and the power supply. Your HART Communicator uses the Bell 202 frequency shift key (FSK) technique of high-frequency digital signals superimposed on a standard transmitter current loop of 4–20 mA. Because the total high frequency signal voltage added to the loop amounts to zero, communication to and from a HART-compatible device does not disturb the 4–20 mA signal.

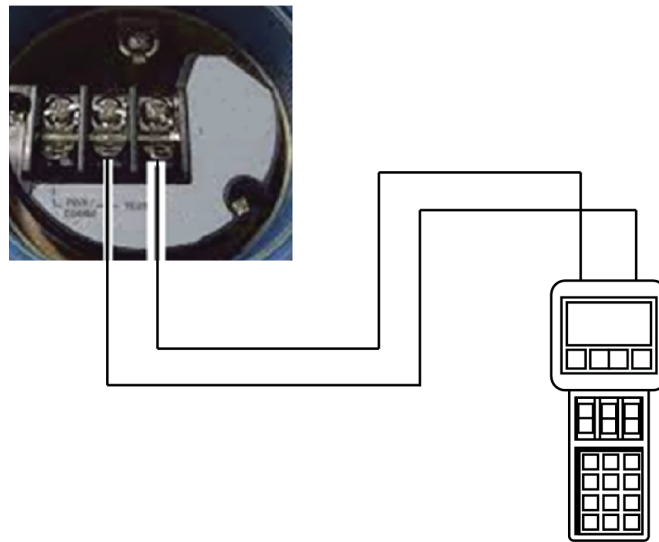
Applications

The HART Communicator PEK275 can interface with a transmitter from the control room, the instrument site, or any wiring termination point in the loop through the rear connection panel as shown in following Figure. To communicate, connect the HART Communicator in parallel with the instrument or load resistor. The connections are non-polarized. Avoid contact with leads and terminals. Do not make connections to the serial port or NiCad recharger jack in an explosive atmosphere. Before connecting the HART Communicator in an explosive atmosphere, make sure the instruments in the loop are installed in accordance with intrinsically safe or non-incendive field wiring practices. Both transmitter covers must be fully engaged to meet explosion proof requirements.

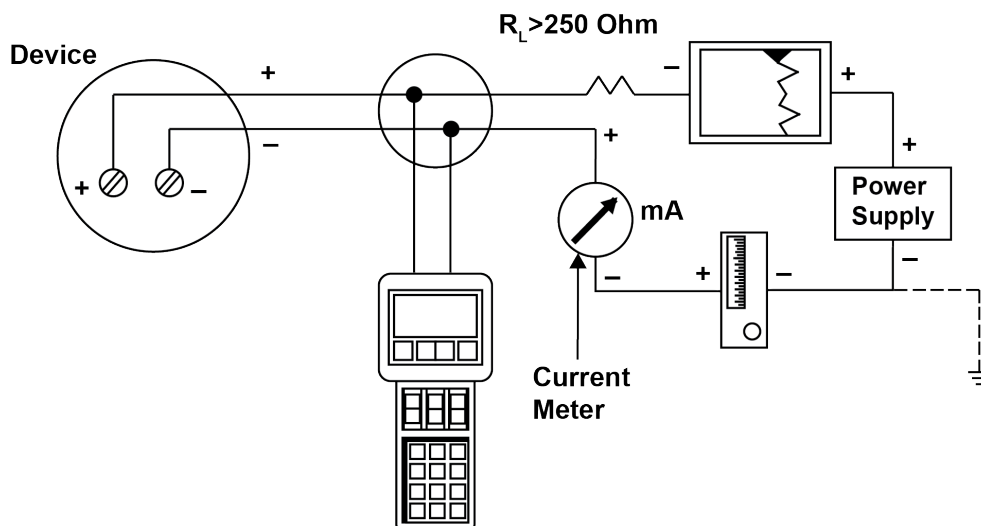
HART COMMUNICATOR CONNECTIONS



Typical wiring connections

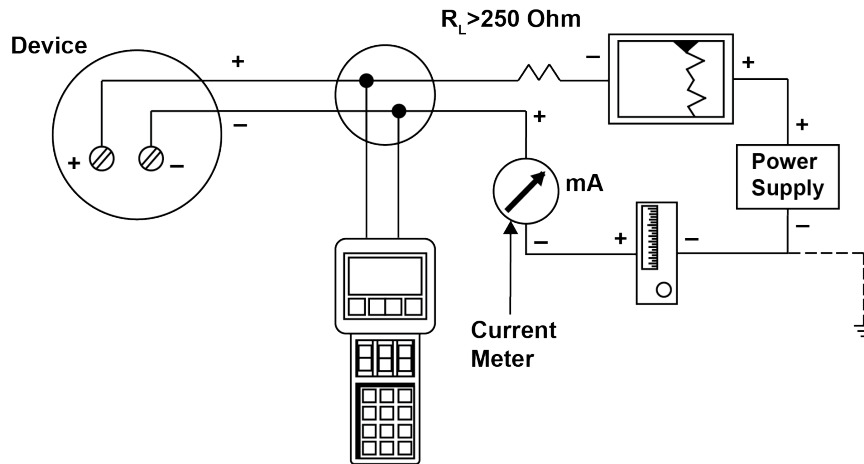


Connecting to the PEK Transmitter

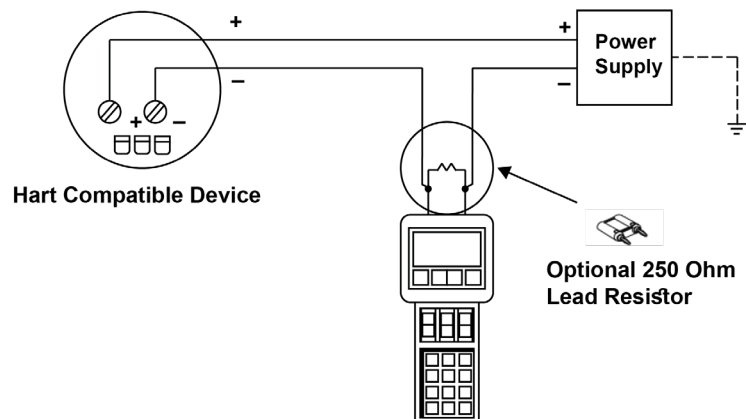


Connecting to the Transmitter with Communicator Terminals

Typical wiring connections



Connecting the HART Communicator to the Loop



Connecting the HART Communicator with the Load Resistor