



PRODUCT DATASHEET

USB HART Modem

HM1-UD USB 2.0

Works With Your Tools

Appears to the PC as a standard COM port, so it drops straight into PACTware, FieldCare, FieldMate, SIMATIC PDM and any DTM/DD-based device manager.

USB Bus-Powered

A single USB connection carries data and power (under 0.25 W). No external supply and no serial port required.

Fully Isolated

A 2500 V galvanically isolated loop interface protects your PC, and the connection is polarity-independent.

Truly Portable

A compact USB-stick modem with two flexible grabber-clip leads — ideal for a laptop bag, the calibration bench or the field.

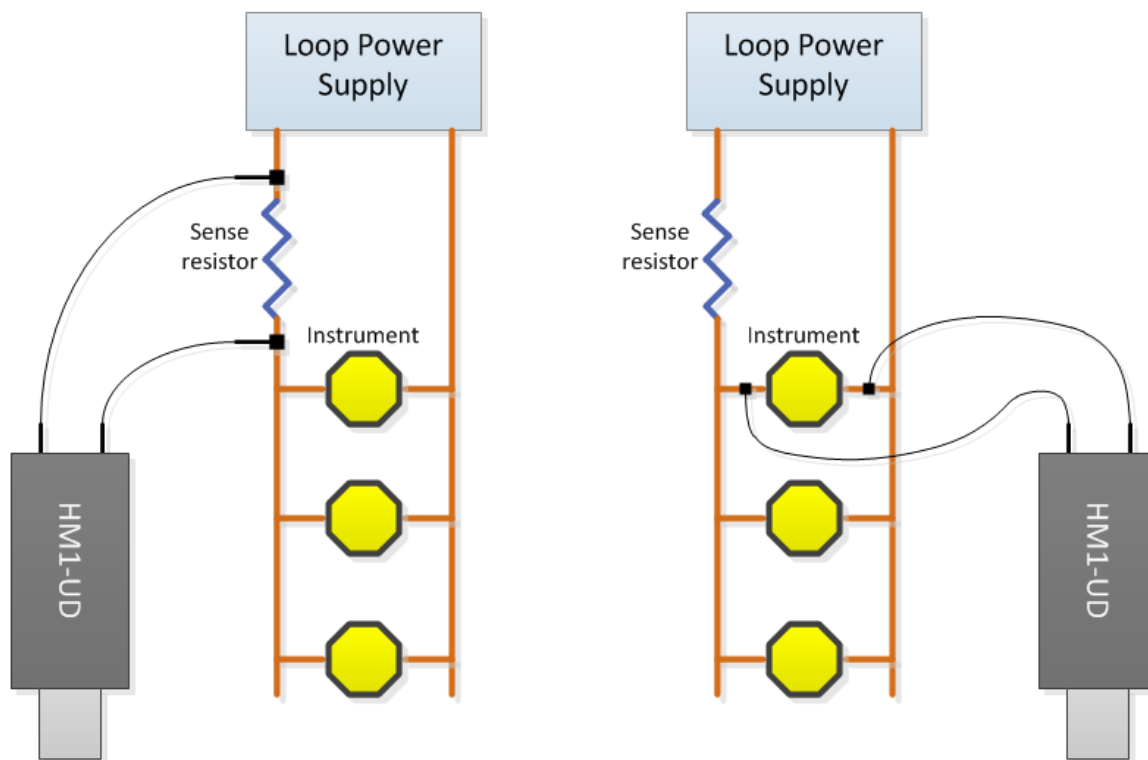
Product description

The **HM1-UD** is a single-channel USB HART modem. It connects a PC or laptop to HART field instruments so that standard asset-management software can configure, calibrate, maintain and diagnose them — over a simple USB connection, with no separate power supply and no serial port required.

A supplied driver creates a **virtual serial (COM) port** that behaves exactly like a conventional serial port, so any HART-capable device-management package can use it. Because the connection is USB, the HM1-UD suits portable engineering tools — laptops and tablets that no longer provide a built-in serial interface.

Connecting to a HART loop

Two flexible flying leads with grabber clips connect the modem across the HART loop — either across the loop sense resistor or directly across the instrument. The connection is polarity-independent, and the loop interface is fully isolated from the PC. A HART signal needs a loop load of roughly **250 Ω** ; on a live 4–20 mA loop this is usually already present.



Connection options — clip the two flying leads across the loop sense resistor (left) or directly across the instrument (right). The connection is polarity-independent.

Features

- **Standard COM-port interface** — works with any DTM/DD-based host tool.
- **Point-to-point and multi-drop** — acts as primary or secondary HART master.
- **USB bus-powered** — data and power on one connection; nothing else to plug in.
- **Fully isolated loop** (2500 V) and polarity-independent connection.
- **Portable USB-stick form factor** with grabber-clip flying leads; USB extension lead supported.
- **Cross-platform drivers** — produced for Windows, macOS and Linux.

Technical data

HART interface

Channels	1
Type	Primary / secondary master
Multi-drop	Yes (point-to-point & multi-dropped)
Loop connection	Two flying leads, grabber clips
Polarity	Independent

Host interface

USB	1 × USB 2.0
Connector	Type B
PC interface	Virtual serial (COM) port via driver
Interface protocol	Raw modem

Power

Supply	+5 V from the USB port (bus-powered)
Consumption	< 0.25 W

Isolation & safety

Loop interface	Fully isolated
Dielectric isolation	2500 V (1 minute)

Environment

Operating temperature	0 to +50 °C ambient
Storage temperature	–20 to +70 °C
Humidity	0 to 70 % non-condensing

Software compatibility

Tools	PACTware, FieldCare, FieldMate, SIMATIC PDM, DTM/DD-based tools
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Compliance

Europe	CE — EN ISO 17050-1:2004
USA	FCC Part 15 (Class A)
Canada	ICES-003

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Product support

For assistance, raise a support ticket at the address below and quote the model **HM1-UD**, your operating system and the device-management software you are using. The support site also hosts the modem driver, the User Manual and the Quick Start Guide.

Lawnswood Technology Limited

Support: support.lawnswoodtechnology.com

Web: lawnswoodtechnology.com