

July 2004

Description

Moore Industries' HART® Isolators provide highly economical solutions to three common and costly problems that plague many of today's "smart" process loops. Protect and enhance your HART investment with the 2-wire HIX or its 4-wire counterpart, the HIT.

Surge, spike and transient safeguarding protects I/O cards. Add the 1500Vrms isolating capability of a HART Isolator to a loop to break the common galvanic path that can pass dangerous overloads from DCS to transmitter to PLC or vice-versa— even when the equipment is supposedly "isolated" already.

Area isolation allows for equipment maintenance without loop downtime. Placing current-driven or HART devices on isolated legs of a loop makes it possible to remove those instruments from the circuit without affecting other equipment.

"Sharing" the HART output of one transmitter— safely— with a secondary control or recording device allows for redundancy without further burden on, or risk to, a process loop.

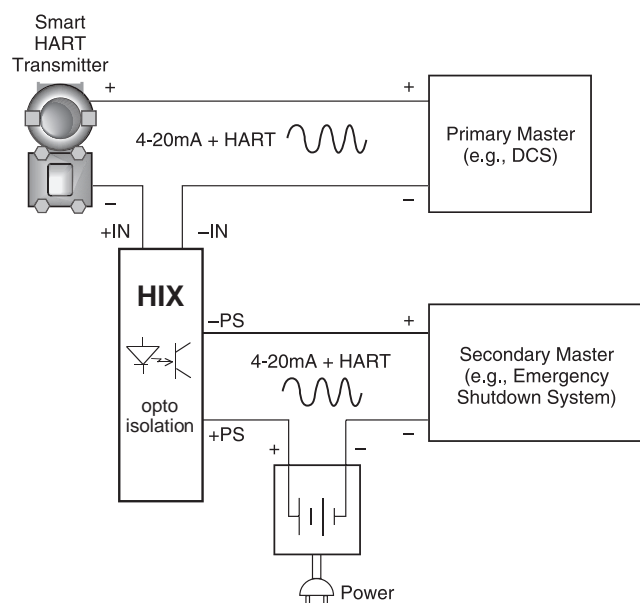


The compact DIN housing of our HART Isolators snap on to either Top Hat or G-type mounting rails.


Features

- **Share one HART signal— safely.** Avoid the substantial costs of having to install and configure separate instrument loops for each HART transmitter-Master pair in use. The HART Isolator sends fully isolated transmitter output to both the primary and secondary HART masters.
- **Get premium isolation at an economy price.** Safeguard expensive I/O cards with 1500Vrms of protection. Spend just a little for a HART Isolator, and be free from worry over damaging transients, spikes or surges.
- **Troubleshoot DCSs that use non-isolated HART transmitters.** 90% of all HART transmitters in use are isolated. If your application happens to use one that falls into the remaining 10%, however, a simple ground loop or ambient electronic noise source can wreak havoc. Economical HART Isolators are snap-in solutions for these kinds of problems.

Figure 1. The 2-Wire HIX is an ideal, low-cost way to get one HART signal to two receiving devices SAFELY.



Certifications*

 CE Conformant – [HIX] EMC Directive 89/336/EEC
EN 61326

HART is a registered trademark of the HART Communication Foundation.

HIT/HIX

HART® Isolator

Specifications

<p>Performance Accuracy: ±0.1% of span Isolation: 1500Vrms between input and output on HIX; 1500Vrms between input, output and power on HIT Common Mode Rejection: Exceeds 95dB at 60Hz with a limit of 1500Vrms Input Impedance: 250 ohms Input Overrange Protection: 250% of full scale Output Current Limiting: 25mA typical; 30mA maximum</p>	<p>Performance (continued) Ripple: 10mV when measured across 250 ohm resistor Burden: 5V, maximum Load Capability: $V_s - 12V_{dc}$ 20mA Response Time (analog output): 100msec maximum to 99% of output Ambient Conditions Temperature Range: -20°C to +70°C (-4°F to +158°F) Effect: ±0.007% of span/°C typical; ±0.015% of span/°C maximum Humidity: 0-95% non-condensing</p>	<p>Adjustments Type: Front panel pots Span: ±10% Zero: ±5% (non-interactive when span is set first) Weight HIT: ECD Housing, 142 g (5.0 oz) HIX: DIN Housing, 119 g (4.2 oz)</p>
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Ordering Information

Unit	Input	Output	Power	Options	Housing
HIT 4-wire, Line-(Mains) Powered, HART Isolator	4-20mA 4-20mA into 250 ohms with HART digital data superimposed	4-20mA Isolated, 4-20mA into 1200 ohms (with 24Vdc, 117Vac, or 230Vac power); HART digital data superimposed	24DC ±10% 117AC 50/60HZ, ±15% 230AC 50/60HZ, ±15% 2 Watts power consumption	-TX 2-wire transmitter excitation; 24V @ 25mA -IZ100 reduces the input impedance to 100 ohms	ECD Thermoplastic, DIN-style housing mounts on 32mm G-type rail (EN50035), or on 35mm Top Hat rail (EN50022)
HIX 2-wire, Loop-Powered, HART Isolator	4-20mA 4-20mA into 250 ohms with HART digital data superimposed	4-20mA Isolated, 4-20mA into 600 ohms (with 24Vdc power); HART digital data superimposed	12-42DC	-IZ100 reduces the input impedance to 100 ohms	DIN Aluminum DIN-style housing mounts on 32mm G-type (EN50035) and 35mm Top Hat (EN50022) rails

When ordering, specify: Unit / Input / Output / Power / -Option [Housing]

Model number examples: HIX / 4-20MA / 4-20MA / 12-42DC / [DIN] and HIT / 4-20MA / 4-20MA / 117AC / -TX [ECD]

Figure 2. Dimensions of the HIX HART Isolator in its Aluminum Housing

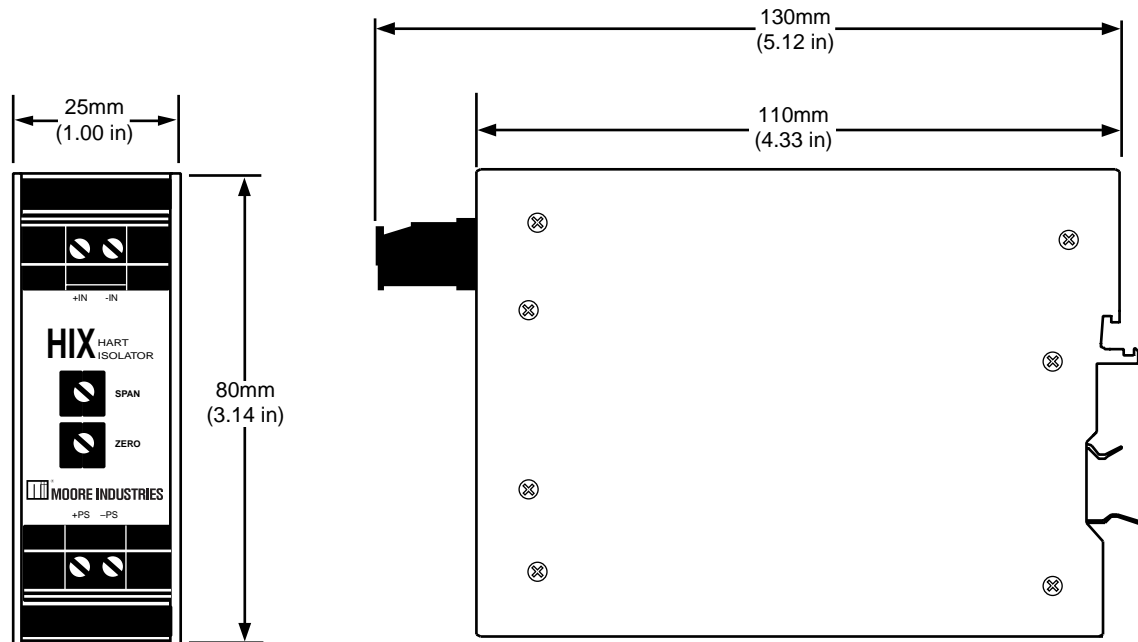
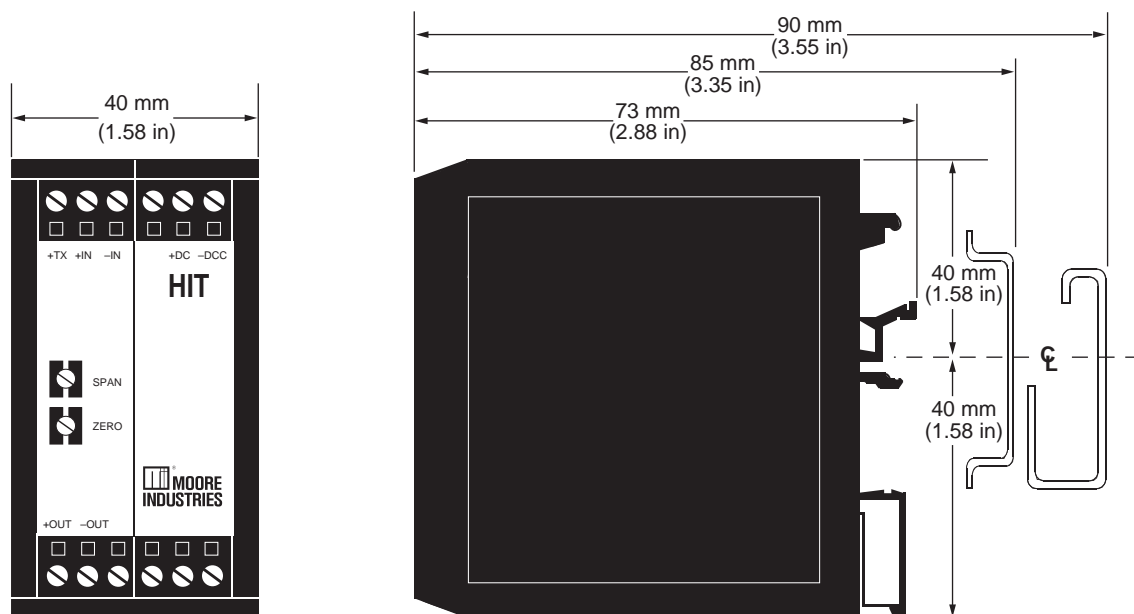


Figure 3. Dimensions of the HIT HART Isolator in its ECD Housing



HIT/HIX

HART® Isolator



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