

## Highlights

HART (Highway Addressable Remote Transducer) is a fieldbus that provides process information and primary and secondary variables from field devices. The Harmony HART adapters provide a means for the Harmony I/O installed base to access HART information without the field signals on Harmony termination units having to be rewired. The adapters provide a hardware device to allow field signals on the Harmony termination unit to connect to third-party input multiplexers. The multiplexers allow a large number of HART signals to be directed to a central computer system where programs such as fieldbus builder tools and asset optimization products are executed.

## Specifications

For the following specifications, refer to the applicable instruction manual listed in Table 1.

- Field circuit ratings.
- Common mode voltage.
- Overvoltage category.
- Voltage, current, and frequency ratings.

**Table 1.** Reference Documents

Number	Document Title
WBPEEUI240764??	Analog Input Module (IMFEC11 and IMFEC12)
WBPEEUI240769??	Control I/O and Quick Response I/O Module IMCIS22 and IMQRS22
WBPEEUI260037??	Controller Station Termination Unit NTCS04
WBPEEUI260044??	Analog Input Termination Unit NTAI05

For other specifications, refer to Tables 2 and 3.

**Table 2.** NHAI05, NHCS04, NHDI01, and NHAI06 Adapter Specifications

Property	Characteristic/Value
Power requirements	None
Cable insulation PVC (UL rating PLTC) Non-PVC (UL rating PLTC)	80°C (176°F) at 300 V 90°C (194°F) at 300 V

**Table 2.** NHAI05, NHCS04, NHDI01, and NHAI06 Adapter Specifications (continued)

Property	Characteristic/Value
Environmental	
Ambient temperature	0° to 70°C (32° to 158°F)
Relative humidity	5% to 95% up to 55°C (131°F) (noncondensing) 5% to 45% at 70°C (158°F) (noncondensing)
	Pollution degree: I
Altitude	Sea level to 3 km (1.86 mi)
Air quality	Noncorrosive
Cooling requirements	No cooling is required when used in ABB cabinets and operated within environmental limits.
Certifications	
Industrial Information Technology (IIT)	Level 0
Canadian Standards Association (CSA)	Certified for use as process control equipment in an ordinary (nonhazardous) location. (Pending)
Factory Mutual (FM)	Approved as nonincendive equipment for use in Class I; Division 2; Groups A,B,C,D; hazardous locations. (Pending)
Spacing requirements	Comply with CSA general purpose (non-hazardous) locations per CSA bulletin C22.2, no. 1010.1-92

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

**Table 3.** NHAI06 Adapter Isolation Specifications

Property	Characteristic/Value
Channel-to-Channel Isolation	The NHAI06 adapter and the IMASI23 I/O module must be operated within the isolation (i.e., the maximum voltage) specifications of either the MTL or the ELCON system. For the isolation specifications of the MTL or Elcon multiplexer, refer to the applicable manufacturer's documentation.

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