

## 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                                                |
|-----------------|---------------------------------------------------------------|
| WBPEEU1240764?? | Analog Input Module (IMFEC11 and IMFEC12)                     |
| WBPEEU1240769?? | Control I/O and Quick Response I/O Module IMCIS22 and IMQRS22 |
| WBPEEU1260037?? | Controller Station Termination Unit NTCS04                    |
| WBPEEU1260044?? | Analog Input Termination Unit NTAI05                          |

For other specifications, refer to Table 2.

**Table 2.** NHA105 and NHCS04 Adapter Specifications

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

**Table 2.** NHA105 and NHCS04 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)<br>5% to 45% at 70°C (158°F) (noncondensing)<br>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                   |

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