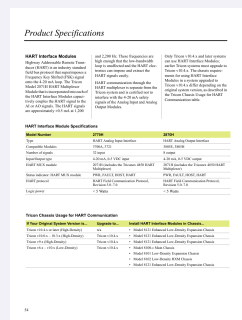


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

3000106-010

HART interface assembly



PRODUCT	3000106-010
FAMILY	Triconex safety system
FUNCTION	HART interface assembly
STATUS	Verify exact installed equipment

Prepared by Amikon Limited from Triconex documentation. This guide supplements the complete manufacturer manual and site procedure.

01

CONFIRM THE ORDERED CONFIGURATION

Component Type	HART interface assembly
Order Reference	3000106-010
System Platform	Triconex safety control system
Primary Function	Couples HART data to analog loops
Circuit Capacity	Eight analog output signals
Nominal Supply	Below 5 W logic load

02

PREPARATION AND CONNECTION

- Confirm the complete 3000106-010 article number and installed revision.
- Isolate applicable electrical and process energy using the approved site procedure.
- Record every connector, cable, terminal, shield and protective-earth connection before removal.
- Install without forcing keyed parts, then secure terminals, latches, fasteners and cable supports.

Product Specifications

HART Interface Modules

Highway Addressable Remote Transducer (HART) is an industry standard field bus protocol that superimposes a Frequency Key Shifted (FSK) signal onto the 4-20 mA loop. The Tricon Model 2071H HART Multiplexer Module that is incorporated into each of the HART Interface Modules capacitively couples the HART signal to the AI or AO signals. The HART signals are approximately ± 0.5 mA at 1,200

and 2,200 Hz. These frequencies are high enough that the low-bandwidth loop is unaffected and the HART electronics can impose and extract the HART signals easily.

HART communication through the HART multiplexer is separate from the Tricon system and is certified not to interfere with the 4-20 mA safety signals of the Analog Input and Analog Output Modules.

Only Tricon v10.4.x and later systems can use HART Interface Modules; earlier Tricon systems must upgrade to Tricon v10.4.x. The chassis requirements for using HART Interface Modules in a system upgraded to Tricon v10.4.x differ depending on the original system version, as described in the Tricon Chassis Usage for HART Communication table.

HART Interface Module Specifications

Model Number	2770H	2870H
Type	HART Analog Input Interface	HART Analog Output Interface
Compatible Modules	3700A, 3721	3805E, 3805H
Number of signals	32 input	8 output
Input/Output type	4-20 mA, 0-5 VDC input	4-20 mA, 0-5 VDC output
HART MUX module	2071H (includes the Triconex 4850 HART Multiplexer)	2071H (includes the Triconex 4850 HART Multiplexer)
Status indicator: HART MUX module	PWR, FAULT, HOST, HART	PWR, FAULT, HOST, HART
HART protocol	HART Field Communication Protocol, Revision 5.0-7.0	HART Field Communication Protocol, Revision 5.0-7.0
Logic power	< 5 Watts	< 5 Watts

Tricon Chassis Usage for HART Communication

If Your Original System Version is...	Upgrade to...	Install HART Interface Modules in Chassis...
Tricon v10.4.x or later (High-Density)	n/a	Model 8121 Enhanced Low-Density Expansion Chassis
Tricon v10.0.x – 10.3.x (High-Density)	Tricon v10.4.x	Model 8121 Enhanced Low-Density Expansion Chassis
Tricon v9.x (High-Density)	Tricon v10.4.x	Model 8121 Enhanced Low-Density Expansion Chassis
Tricon v6.x – v10.x (Low-Density)	Tricon v10.4.x	- Model 8100-x Main Chassis - Model 8101 Low-Density Expansion Chassis - Model 8102 Low-Density RXM Chassis - Model 8121 Enhanced Low-Density Expansion Chassis

04

COMMISSIONING CHECKS

- 01 Confirm product identity and mechanical seating.
- 02 Verify the documented supply before energising.
- 03 Inspect polarity, shielding and protective-earth connections.
- 04 Restore power in the approved sequence and observe status indications.
- 05 Test each connected input, output or communication path.
- 06 Record diagnostics and functional-test results before return to service.

05

CONTROLLED DOCUMENT

Official source	Tricon Technical Product Guide
Product record	3000106-010
Manufacturer	Triconex
Warranty	12 months from AMIKON
Support	INFO@AMIKON.CN

AMIKON PRODUCT SUPPORT

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