MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GE

NTAI05

INFI 90 ANALOG INPUT TERMINATION UNIT

Used with the applicable ABB Bailey Infi 90 configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Bailey Controls NTAI05 Analog Input Termination Unit, I-E96-416B

SECTION 1 - INTRODUCTION

OVERVIEW

The NTAI05 Analog Input Termination Unit inputs 15 or 16 channels of analog signals depending on slave module type. It connects a slave module to field equipment and Bailey Controls smart transmitters. The signals pass through slave modules to the IMMFP01, IMMFP02 and IMMFP03 INFI 90 Multi-Function Processors, IMAMM03 Analog Master Modules or NMFC03, NMFC04 and NMFC05 Multi-Function Controllers.

This manual explains the purpose, setup, handling precautions and steps to install the NTAI05 unit. Refer to the ***Table of Contents*** to find the information needed. Refer to the ***HOW TO USE THIS MANUAL*** entry in this section to get started.

INTENDED USER

System engineers and technicians should read this manual before installing and using the NTAI05 unit. Install and power up the unit only after reading and understanding this manual.

TERMINATION UNIT DESCRIPTION

The NTAI05 unit is a single printed circuit board that mounts to an NFTP01 Field Termination Panel. The termination unit (TU) has one cable connector for signals. P1 carries the inputs to the slave module through the cable. The terminal blocks for field wiring are on the termination unit.

The dipshunts on the NTAI05 unit set the input type. Refer to the appendix for the switch settings of the slave module used. Be sure to check the switch setting before inserting the module into the module mounting unit (MMU). Figure 1-1 shows an example of the NTAI05 unit in a system.

FEATURES

The design of the NTAI05 unit, as with all INFI 90 devices, allows for flexibility in creating a process management system. Refer to the ***NOMENCLATURE*** entry of this section for the list of devices that can be used with the termination unit in an INFI 90 system.

- A standard factory-wired cable connects the termination unit to the slave module.
- On-board terminal blocks accept field and I/O wiring.

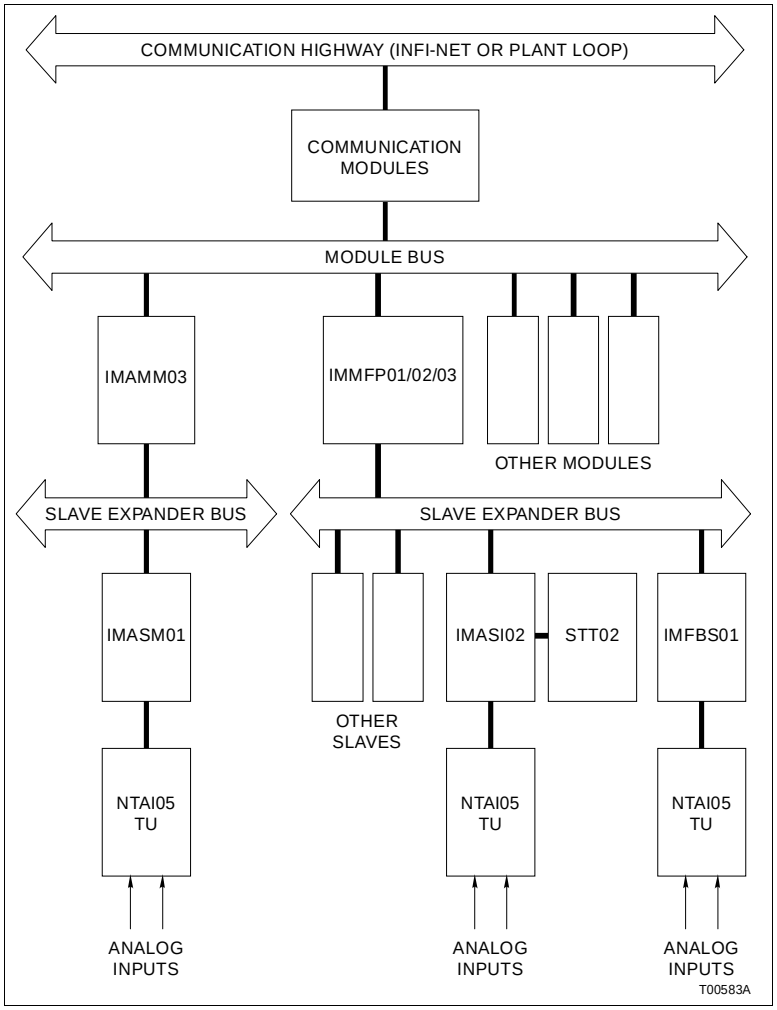


Figure 1-1. Application Example for the NTAI05 Termination Unit

- Analog inputs routed between field devices and I/O modules.
- The termination unit has no serviceable parts.
- Inputs may be either system or externally powered.

The NTAI05 unit handles up to 15 analog inputs for the IMASI02 and IMFBS01 modules or 16 analog inputs for the IMASM01 modules (inputs may be differential or single ended). The input signal types that can be handled by the various slave modules and configured by dipshunts on the NIAI05 unit are listed.

- 4 to 20 milliamps DC, system or externally powered.
- -10 VDC to +10 VDC.
- 0 VDC to 10 VDC.
- 1 VDC to 5 VDC.
- 0 VDC to 5 VDC.
- 0 VDC to 1 VDC (IMASI02/IMFBS01 only).

GLOSSARY OF TERMS AND ABBREVIATIONS

Table 1-2 contains the glossary of terms for this manual.

Table 1-2. Glossary of Terms and Abbreviations

Term	Definition
Analog	Continuously variable as opposed to discretely variable.
Dipshunt	Dual in-line package with shorting bars.
Dipswitch	A dual in-line package that contains single pole switches.
MMU	Module mounting unit. A card cage that provides electrical and communication support for INFI 90/Network 90® modules.
Smart Transmitter	A field measuring device that can handle digital communication. It allows configuring of operating parameters, on-line parameter changes and remote troubleshooting.
TU	Termination unit. Provides input/output connection between plant equipment and the INFI 90 process modules. The termination unit mounts to a field termination panel.

SPECIFICATIONS

Refer to Table 1-3 for the specifications of the NTAI05 termination unit.

Table 1-3. Specifications

Property	Characteristic/Value
Power Requirements	+24 VDC 20 mA per input
Mounting	Mounts in the NFTP01 Field Termination Panel.
Environmental:	
Electromagnetic/ Radio Frequency Interference	No values available at this time. Keep cabinet doors closed. Do not use communicatioin equipment closer than 2 meters from the cabinet.
Ambient Temperature	0° to 70°C (32° to 158°F).
Relative Humidity	0% to 95% up to 55°C (131°F) (noncondensing). 0% to 45% up to 70°C (158°F) (noncondensing).
Atmospheric Pressure	Sea level to 3 km (1.86 mi).
Air Quality	Noncorrosive.
Cooling Requirements	No cooling is necessary when used in Bailey cabinets and operated within stated limits.
Certification	CSA certified for use as process control equipment in an ordinary (nonhazardous) location.

SPECIFICATION SUBJECT TO CHANGE WITHOUT NOTICE

® - Registered trademark of Elsag Bailey Process Automation.

NOMENCLATURE

Table 1-4 contains the modules and equipment that can be used with the NTAI05 termination unit.

Table 1-4. Nomenclature

Nomenclature	Description
IMASI02	Analog Input Slave Module
IMASM01	Analog Slave Module
IMFBS01	Field Bus Slave Module
NFTP01	Field Termination Panel
NKTU01	Cable, Termination Unit (PVC)
NKTU11	Cable, Termination Unit (non-PVC)
STT02	Smart Transmitter Terminal