

General Specifications

Model NFLF111 Foundation Fieldbus Communication Module



GS 34P02Q55-01E

■ GENERAL

This document describes the hardware specifications of the NFLF111 Foundation Fieldbus communication module to be installed in an FCN (field control node) autonomous controller. The NFLF111 functions as a link master (LM) device capable of controlling communication schedules on the H1 fieldbus segment connected to each of its port and performs data exchange between the FCN and fieldbus devices.

■ GENERAL SPECIFICATIONS

● NFLF111 Foundation Fieldbus Communication Module

Table. General Specifications of NFLF111

Item		Specifications
Model		NFLF111(*1)
Interface		FOUNDATION Fieldbus (low-speed voltage mode [H1])
Ports		4 ports per module
Baud rate		31.25 kbps
Functions		Link active scheduler (LAS) functionality
Power	Power supply voltage (*2)	5 V DC ±5%
	Maximum current dissipation	0.5 A
Bus connection		Pressure clamp terminals (*2)
Indicators		LED status indicators
Installation		To be installed in an NFBU200 base module.
Weight		0.4 kg
Size	Dimensions	32.8 x 130.0 x 127.5 mm (W×H×D)
	Occupying slots	1
Isolation		Field-to-system isolated with a withstanding voltage up to 1500 V AC for 1 minute
Module redundancy		Can be duplexed. (*3, *4)
Number of modules that can be installed		Up to 8 duplexed pairs of NFLF111 per FCN (*5)
Number of Fieldbus function blocks		Up to 100 blocks per NFLF111 (*6) Up to 800 blocks per FCN
Inputs/outputs		48 points per port
Linkable fieldbus devices		16 devices per port

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- *1: Can also be installed in an expansion unit.
- *2: Needs a pressure clamp terminal block (below) to be installed. The block has built-in terminators that

- can be switched on and off individually.
- *3: Duplexing the NFLF111 requires Model NT730AJ Software License for Duplexed Field Network Module for each FCN, and it allows up to eight duplexed pairs to be configured in the same FCN.
- *4: When duplexing the NFLF111, install one NFLF111 in an odd-numbered slot and the other NFLF111 of the duplexed pair in the next slot to the right.
- *5: Installing eight pairs of NFLF111s limits the maximum number of other modules that can be installed, to four. Installing seven pairs limits it to sixteen. Installing fewer pairs poses no such limitations.
- *6: The total sum of fieldbus function blocks defined to access via all ports of each NFLF111 (or each pair of NFLF111 when duplexed).

● NFTF9S Pressure Clamp Terminal Block for Fieldbus Connections

Table. General Specifications of NTF9S

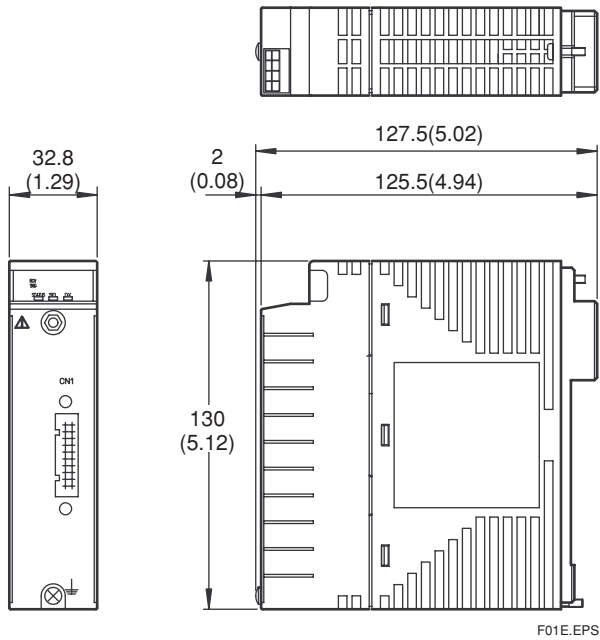
Item	Specifications
Model	NFTF9S
Applicable module	NFLF111
Connections	4 ports
Weight	0.1 kg
Dimensions	32.6 x 112.0 x 32.5 mm (W×H×D)
Surge absorbers	Not provided
Terminator	Incorporated for each port (can be switched on and off).

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■ DIMENSIONS

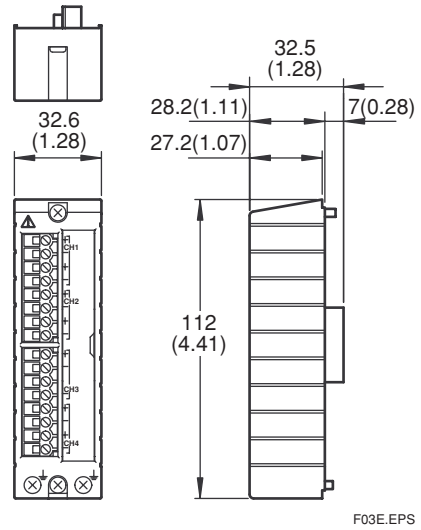
● **NFLF111 Foundation Fieldbus Communication Module**

Unit: mm (inch)



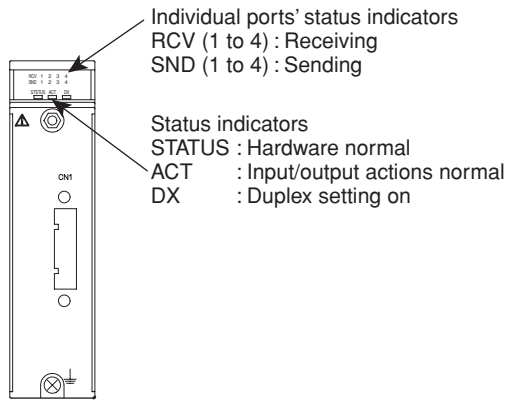
● **NFTF9S Pressure Clamp Terminal Block for Fieldbus Connections**

Unit: mm (inch)



■ TERMINALS AND LEDS

● NFLF111 Foundation Fieldbus Communication Module



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Table Individual Ports' Status Indicators

LED	Color	Description
STATUS	Green	Lights when the hardware is normal.
ACT	Green	Lights when input/output actions are carried out.
DX	Green	Lights when the module is duplexed.

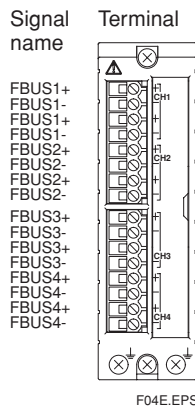
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Table Status Indicator LEDs

LED	Color	Description
RCV	Green	Receiving
SND	Green	Sending

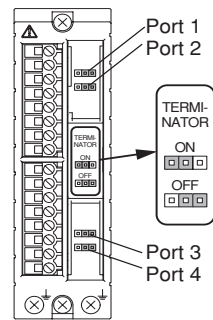
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● Terminal Arrangement of NTF9S Pressure Clamp Terminal Block for Fieldbus Connections



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● Terminator Switches on NTF9S Pressure Clamp Terminal Block for Fieldbus Connections



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■ MODEL AND SUFFIX CODES

● NFLF111 Foundation Fieldbus Communication Module

		Description
Model	NFLF111	Foundation Fieldbus communication module
Suffix Codes	-S	Standard type
	0	Always 0
	0	Basic type
	1	With ISA Standard G3 option
Option Codes	/F9S00	With pressure clamp terminal block for Foundation Fieldbus (Model: NFTF9S-00)

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● NFTF9S Pressure Clamp Terminal Block for Fieldbus Connections

		Description
Model	NFTF9S	Pressure clamp terminal block for Foundation Fieldbus (for NFLF111)
Suffix Codes	-0	Without surge absorber
	0	Always 0

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■ CONNECTIONS TO FIELDBUSES

For connections between an NFLF111 module and fieldbuses, see Fieldbus Overview, TI 38K03A01-01E. Throughout this Technical Information, refer to only portions pertaining to fieldbuses and read "FCU" as "FCN" and "ACF11" as "NFLF111."

■ ORDERING PROCEDURE

Specify the model and suffix codes.

■ TRADEMARKS

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