LON FTT Module

A: User Configuration
B: TxD
C: Mailbox
D: Service

E: LonWorks Status
F: RxD
G: Communication/ Initialization Phase
H: Service

Data contacts

Service Switch — Service Switch

LON Bus A — LON Bus B

The 753-648 LON FTT Module complies with the ISO/IEC 14908 standard. The 1⁄2 inch (12 mm) wide I/O module connects LON to the 750 Series controller and modules (e.g., BACnet, KNX, EnOcean, DALI, MODBUS). It is a full-fledged and flexible LON device within LonWorks FT or LP networks. The module's network variable interface defines 249 network variables of any type and supports both LonMark objects and configuration properties.
LON network interface is defined via LON Configurator, a comprehensive and easy-to-use WAGO-I/O-PRO software tool. Interface representations are programmed via IEC-61131-3 and can be easily used for further applications. Fieldbus nodes are programmed via WAGO-I/O-PRO software. WAGO provides a comprehensive IEC-61131-3 library of function blocks, simplifying the creation of complex control applications.

A maximum of two modules may be connected to one controller. However, the number of modules depends on the memory required by the IEC application and the type of controller. The module is supplied via 24V power jumper contacts.

Description	Item No.	Pack. Unit
LON FTT Module	**753-648**	1

Accessories	Item No.	Pack. Unit
LON-LIB	Download: www.wago.com	
LON Configurator	see Section 1	
WAGO-I/O-PRO V2.3, RS-232 kit	**759-333**	1
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	
753 Series Connectors	**753-110**	25
Coding elements	**753-150**	100
753 Series pluggable connector and coding accessories are part of the delivery.		

Approvals

Conformity marking	CE
ⓊⓁ UL 508	

Technical Data	
Transmission medium	Twisted Pair - FTT
Max. length of fieldbus segment	500 m (free topology);
	2700 m (bus topology)
Topology	acc. to LON specification
Baud rate	78 kbps
Commissioning	via WAGO-I/O-CHECK
Programming	via WAGO-I/O-PRO
Interface to LON network	programmable via WAGO-I/O-PRO
Number of network variables	max. 254 (249 for application)
Number of aliases	max. 127
ISI (Interoparable Self-Installation)	no
DMF (Direct Memory Files)	no
Processor	FT5000
Transceiver	FTX2
Transmission channel	1
Current consumption (internal)	30 mA
Power supply	via system power
Isolation	500 V system/supply
Internal bit width	24-byte data
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	55 g
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3

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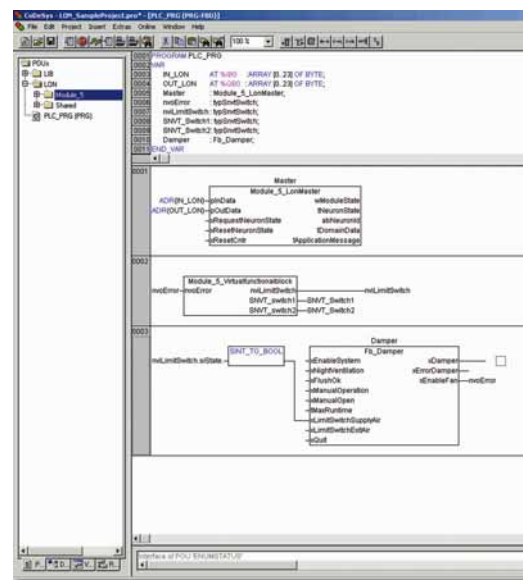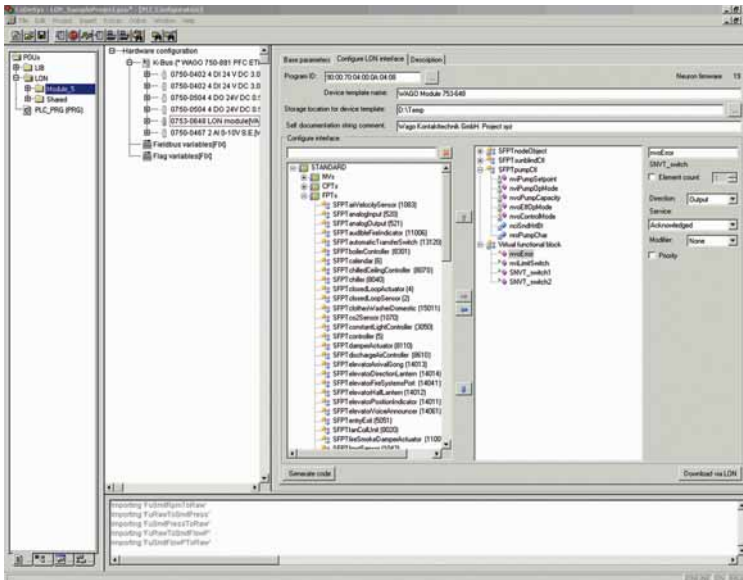
LON Configurator

LON Configurator is an integral part of the WAGO-I/O-PRO IEC-61131-3 programming environment. The configurator supports both 753-648 LON Module's LonWorks network interface configuration and WAGO-I/O-PRO project integration. Network variables of any type can be defined. In addition to standard network variable types (SNVTs) and standard configuration property types (SCPTs), user-defined types (UNVTs/UCPTs) as well as LonMark functional profiles are also supported. Network variables are defined using the types and objects of the LonMark resources installed on your computer.

IEC-61131-3 function blocks are automatically created in the IEC application, simplifying operation. The function blocks represent the LON network interface in this application. When starting the control unit, both network variable interface and configuration data are automatically downloaded into the module.

An external interface file (XIF) is created for offline configuration in a network management tool.

Features:
- Integral part of WAGO-I/O-PRO programming software
- Defines and implements a LON network interface
- Automatically generates IEC-61131-3 function blocks representing the LON network interface in the IEC application
- Downloads both network interfaces and configuration data when starting the control unit
- Generates XIF files
- Configuration check

LON Configurator is available as part of WAGO-I/O-PRO (Version 2.3.9.34 and higher)