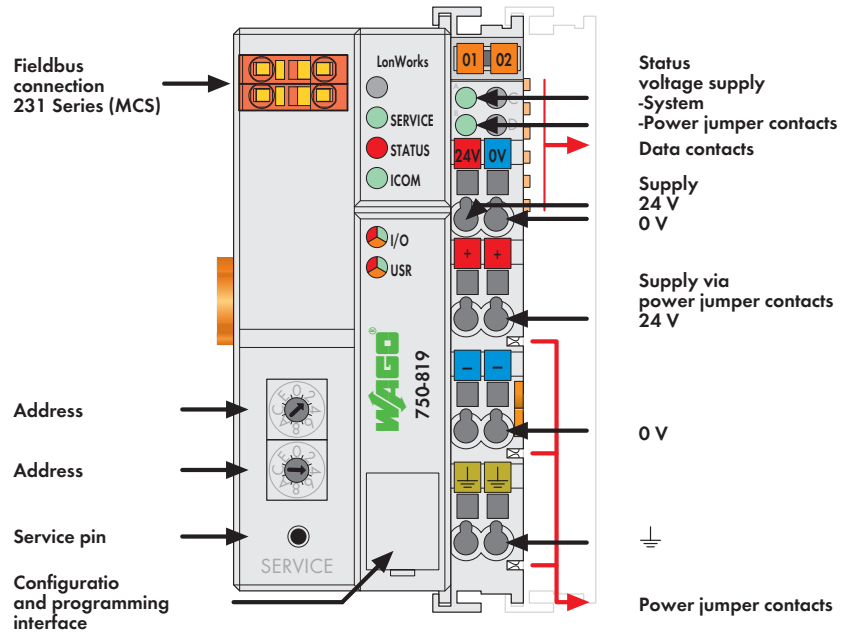


PLC - LonWorks Programmable Fieldbus Controller

16-bit CPU



The LonWorks® PLC is an expansion for the WAGO-I/O-SYSTEM. Programming PLC applications is performed in compliance with IEC 61131-3. The programmer can access all fieldbus and I/O data.

Features and applications:

In addition to the Neuron chip, the LonWorks® controller also has a host processor (40 MHz) that can be programmed via WAGO-I/O-PRO. All available types of modules up to 248 digital or 124 analog input/output channels as well as modules with special functions can be addressed and handled using the program generated by WAGO-I/O-PRO.

The Neuron chip connection is made through IEC-61131-3 variables with special addresses. These can be imported via LNSTM-compliant PRIO LNS plug-in and assigned to a maximum of 52 network variables. Any Standard Network Variable Type (SNVT) can be assigned to each of these network variables. The PRIO LNS plug-in supports all available SNVTs from the LonMark® SNVT Master List (1-31 bytes in length). Network variables can be assigned to any SNVTs, ensuring the best possible interoperability with LonMark®-compliant products of other manufacturers.

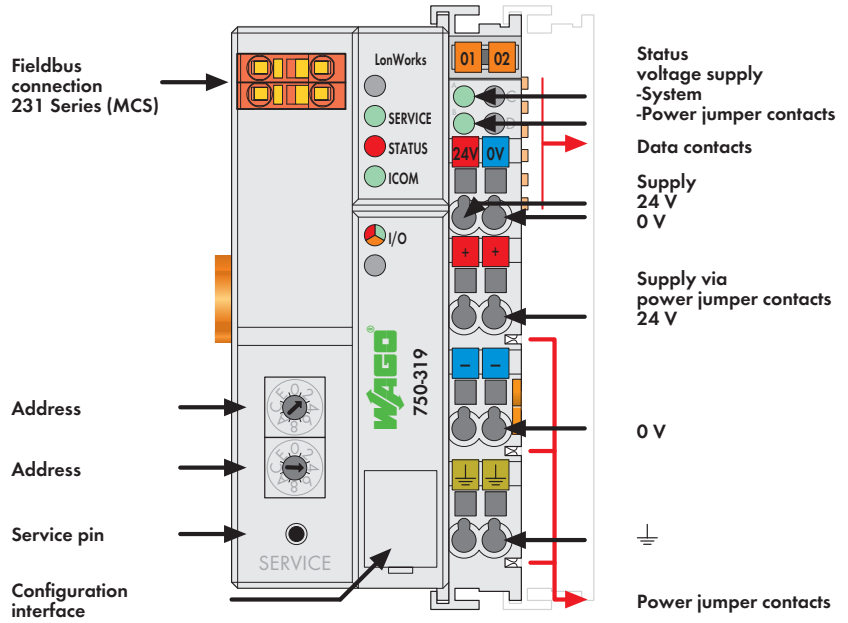
LON®, LONMARK®, LONWORKS® and Echelon® are registered trademarks of Echelon Corporation. LNS™ is a trademark of Echelon Corporation. TOPLON® is a registered trademark of WAGO Kontakttechnik GmbH & Co. KG

Description	Item No.	Pack. Unit
LonWorks® Controller	750-819	1
Accessories		
WAGO LNS Plug-In PRIO	see page 94	
WAGO-I/O-PRO V2.3, RS-232 kit	759-333	1
Miniature WSB Quick marking system		
plain	248-501	5
with marking	see pages 352 ... 353	
Approvals Also see "Approvals Overview" in Section 1		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
IEC 60079-0, -15	BR-Ex nA II T4	
EN 60079-0, -15	I M2 / II 3 GD Ex nA nL IIC T4	
EN 61241-0, -1		

System Data	
No. of controllers connected to Master	64 without repeater, 127 with repeater
Transmission medium	Twisted pair - FTT
Max. length of fieldbus segment	500 m (free topology) 2700 m (bus-topology)
Topology	in accordance with LON specification
Baud rate	78 kbps
Buscoupler connection	2-pole male connector, 231 Series (MCS),
Programming	WAGO-I/O-PRO 32 (as of firmware SW 07 also programmable with WAGO-I/O-PRO V2.3)
IEC 61131-3	IL, LD, FBD, ST, FC

1 LONWORKS® Fieldbus Coupler

154 78 kbps; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM to the LON® fieldbus using FT (Free Topologie Transceiver).

The buscoupler automatically configures, creating a local process image which may include analog, digital or specialty modules. Analog and specialty module data is sent via words and/or bytes, digital data is sent bit by bit.

The following LNS compliant plug-ins are available:

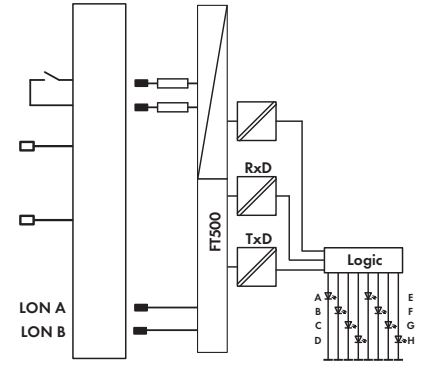
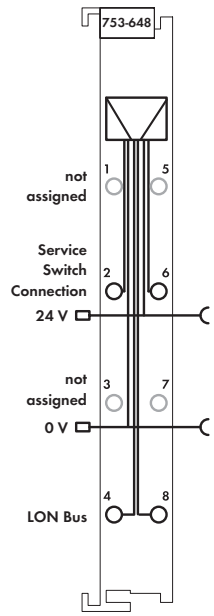
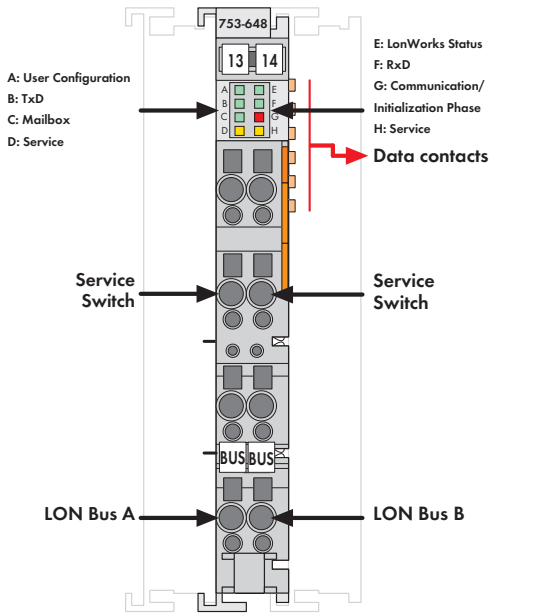
- WAGO TOPLON®-PRIO (Programmable Remote I/O) is the interface between the I/Os of the fieldbus coupler and the LON® network Processing of up to 248 digital or 124 analog inputs /outputs To each network variable any SNVT can be assigned A maximum of 52 network variables, types available NVI/NVOs: 0/52; 20/32; 26/26; 32/20; 52/0
- WAGO TOPLON®-IF (Installation Functions) with ready-to-use applications in any combination. For example, for stairwell light control, ambient light control, touch control dimmer, and window blind control. Processing of up to 48 digital inputs /outputs 48 network variables of the SNVT_switch type are available.

LON® and LONWORKS® are registered trademarks of Echelon Corporation.

Description	Item No.	Pack. Unit
LonWorks®	750-319	1
Accessories		
WAGO LNS Plug-In PRIO	see page 94	
Miniature WSB Quick marking system		
plain	248-501	5
with marking	see pages 352 ... 353	
Approvals		
Conformity marking	Also see "Approvals Overview" in Section 1	
UL 508	CE	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
IEC 60079-0, -15	BR-Ex nA II T4	
EN 60079-0, -15	I M2 / II 3 GD Ex nA nL IIC T4	
EN 61241-0, -1		

System Data	
No. of couplers connected to Master	64 without repeater, 127 with repeater
Transmission medium	Twisted pair - FTT
Max. length of fieldbus segment	500 m (free topology) 2700 m (bus-topology)
Topology	in accordance with LON specification
Baud rate	78 kbps
Buscoupler connection	2-pole male connector, 231 Series (MCS), female connector (231-302) (included)

1 LON FTT Module



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 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	
Accessories		
LON-LIB	Download: www.wago.com	
LON Configurator	see page 33	
WAGO-I/O-PRO V2.3, RS-232 kit	759-333	1
Miniature WSB Quick marking system		
plain	248-501	5
with marking	see Full Line Catalog AUTOMATION 2012/2013	
753 Series Connectors	753-110	25
Coding fingers	753-150	100
753 Series pluggable connectors and coding fingers are included.		
Approvals		
Conformity marking	CE	
UL 508	pending	

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 (Interoperable 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
Stripped lengths	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	55 g
EMC: CE - immunity to interference	acc. to EN 61000-6-2 (2005)
EMC: CE - emission of interference	acc. to EN 61000-6-3 (2007)
EMC: marine applications	
- immunity to interference	acc. to Germanischer Lloyd (2003)
EMC: marine applications	
- emission of interference	acc. to Germanischer Lloyd (2003)
LON®, LonWorks® and LonMark® are registered trademarks of Echelon Corporation.	