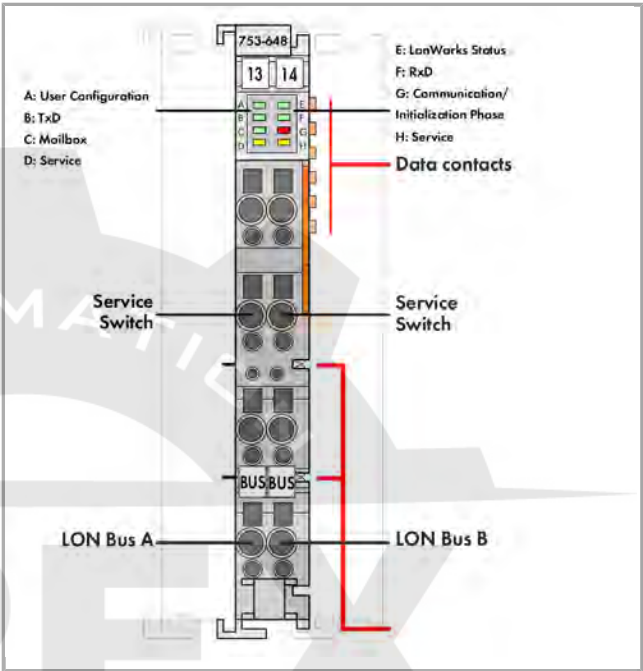
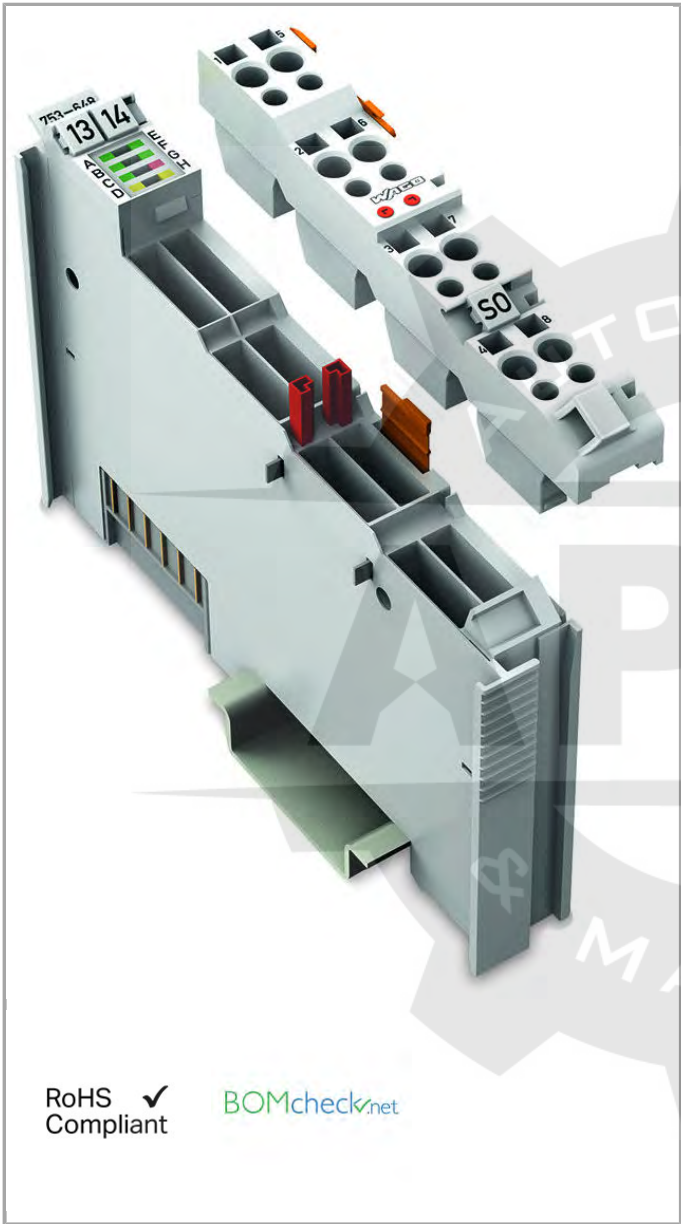
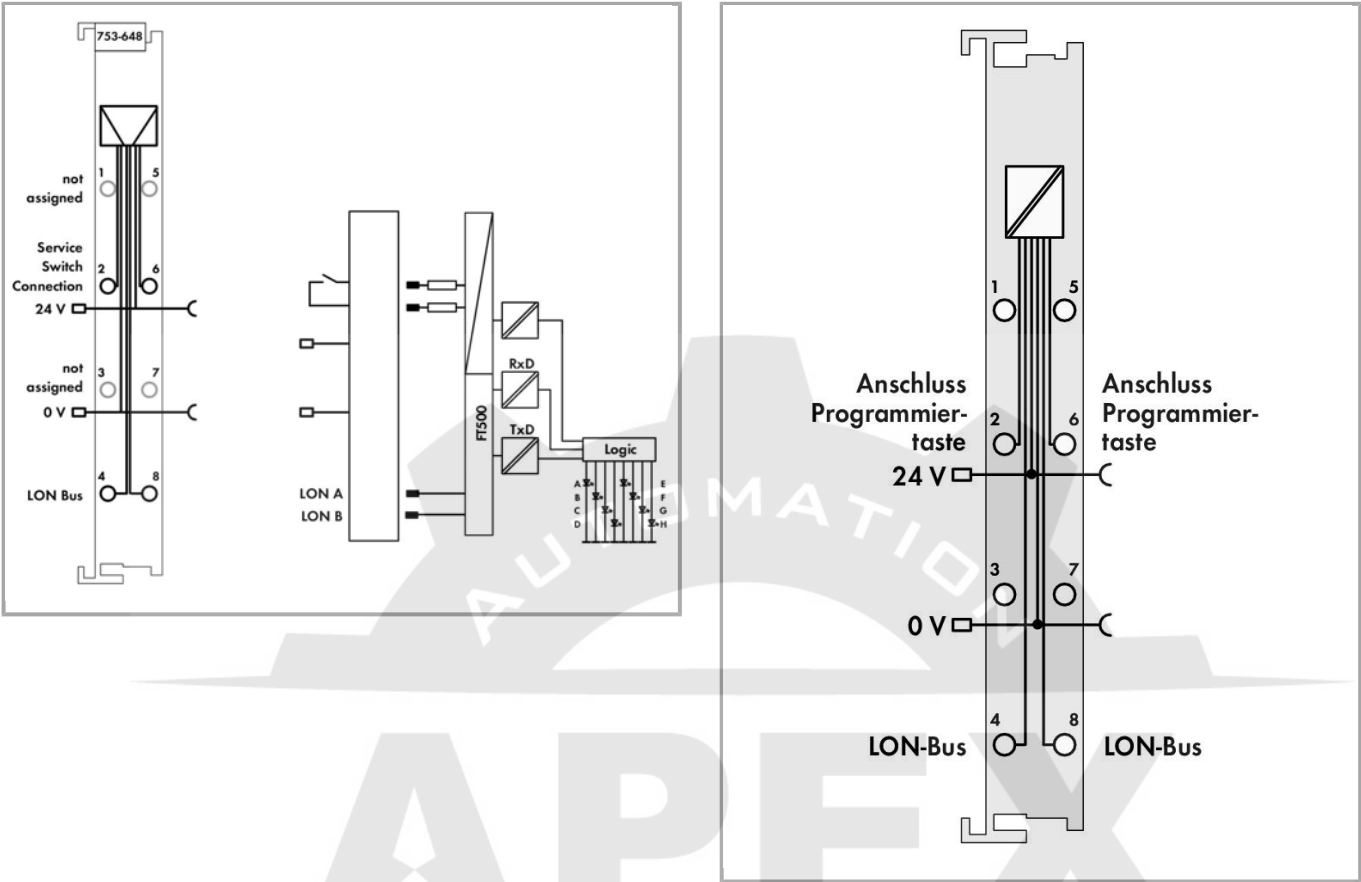




753-648



RoHS Compliant



Item description

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.

Data

Technical Data

Device-specific	Number of network variables: max. 254 (249 for application)
Topology	acc. to LON specification
Number of aliases	127
Baud rate	-

Fieldbus segment length max.	2700 m; 500 m (free topology); 2700 m (bus topology)
Transmission medium	Twisted pair - FTT
Transmission channel	1
Bit width	24-byte data
Commissioning	via WAGO-I/O-CHECK
System supply voltage	DC 5 V; via data contacts
Current consumption, system supply (5 V)	30 mA
System and sensor supply voltage	)
Field supply voltage	DC 24 V; über Leistungskontakte (Einspeisung über Messerkontakt; Weiterleitung über Federkontakt)
Isolation	500 V system/supply
Number of incoming power jumper contacts	2
Number of outgoing power jumper contacts	2

Connection data

Connection technology: In-/Outputs	8 x CAGE CLAMP®
Connection type (1)	Inputs/Outputs
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inch

Geometrical Data

Width	12 mm / 0.472 inch
Height	69 mm / 2.717 inch
Height from upper-edge of DIN-35 rail	61.8 mm / 2.433 inch
Depth	100 mm / 3.937 inch

Mechanical data

Type of mounting	DIN-35 rail
Pluggable connector	yes

Material Data

Housing material	Polycarbonate, polyamide 6.6
Weight	54.832 g
Conformity marking	1

Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20

Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	0 ... 2000 m
Mounting position	horizontal (standing/lying) or vertical
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (Remote I/O)
Country of origin	DE
GTIN	4050821475705
Customs Tariff No.	85389099990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726 Sec.1

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- MSM750

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1



Compatible products

system box

	Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	850-804
	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	850-804
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	850-805
	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	850-814
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	850-815
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	850-816
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	850-817
	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	850-825
	Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	850-826
	Item no.: 850-826/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	850-826
	Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	850-827

Item no.: 850-827/002-000



IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

850-827

/002-000

**Item no.: 850-828**

IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

850-828

**Item no.: 850-828/002-000**

IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

850-828

/002-000

**Item no.: 850-834**

IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

850-834

**Item no.: 850-835**

IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

850-835

**Item no.: 850-836**

IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

850-836

Marking accessories**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-002

**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-005

**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-006

**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-007

**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-012

**Item no.: 2009-145/000-023**

Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-023

**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type

2009-145

/000-024

**Item no.: 248-501**

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

248-501

**Item no.: 248-501/000-002**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-002

248-501

**Item no.: 248-501/000-005**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-005

248-501

**Item no.: 248-501/000-006**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-006

248-501

**Item no.: 248-501/000-007**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-007

248-501

**Item no.: 248-501/000-012**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-012

248-501

**Item no.: 248-501/000-017**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-017

248-501

**Item no.: 248-501/000-023**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-023

248-501

**Item no.: 248-501/000-024**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type

/000-024

248-501

**Item no.: 709-198**

Marking strips

709-198

**Item no.: 750-103**

Group marker carrier

750-103

**Item no.: 750-107**

Group marker carrier

750-107

shield connection**Item no.: 790-108**

Shield clamping saddle; 11 mm wide; diameter of compatible conductor

790-108

**Item no.: 790-116**

Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

790-116

**Item no.: 790-124**

Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

790-124

**Item no.: 790-140**

Shield clamping saddle; diameter of compatible conductor

790-140

**Item no.: 790-208**

Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

790-208



Item no.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm

790-216



Item no.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm

790-220

Carrier rail



Item no.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm

210-112



Item no.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715

210-113



Item no.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715

210-114



Item no.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm

210-115



Item no.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-118



Item no.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715

210-196



Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

210-197



Item no.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-198



Item no.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

210-504



Item no.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715

210-505



Item no.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715

210-506



Item no.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

210-508

pluggable wiring tier



Item no.: 753-150
753 Series coding elements

753-150

Supply module



Item no.: 750-601
Power Supply; 24 VDC

750-601



Item no.: 750-602
Power Supply; 24 VDC

750-602



Item no.: 750-610
Power Supply; 24 VDC; fuse holder; Diagnostics

750-610



Item no.: 750-612
Power Supply; 0 ... 230 V AC/DC

750-612



Item no.: 753-602
Power Supply; 24 VDC

753-602



Item no.: 753-612
Power Supply; 0 ... 230 V AC/DC

753-612

Downloads

Documentation

Manual

LON FTT Module	V 1.0.0	pdf 1.0 MB	Download
WAGO LON Configurator for configuring WAGO 753-648 LON FTT Modules	V 1.0.0	pdf 5.0 MB	Download

Bid Text

753-648	Apr 5, 2012	doc 27.6 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
750/753 Series I/O-System – General Product Information		pdf 1.7 MB	Download

Application Notes

Application Note CoDeSys 2.3

Address Table Entries for 753-648 LON Module, application note In this application note, an example is used to describe how to proceed when all address table entries of the 753-648 LON-FTT Module are occupied.	Sep 23, 2013	pdf 1.2 MB	Download
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Libraries

Library

Bibliotheken für die Gebäudeautomation CODESYS 2.3	Apr 25, 2019	zip 74.2 MB	Download
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In dieser Zip-Datei sind WAGO I/O PRO Bibliotheken für die Automation von Gebäuden enthalten. Es sind Bausteine für folgende Applikationen verfügbar: - DALI - DALI Sensoren - DALI Colour Control (Farbsteuerung) - DALI Emergency Lighting - Enocean - SMI - HLK / HVAC Funktionen - Allgemeine Gebädefunktionen wie Jalousie, Dimmer, Stromstoßschalter - Zeitschaltfunktionen (Scheduler) - KNX Funktionsbausteine - BACnet - WINSTA Jalousiebox - DMX - Wetterstation Elsner - M-Bus, MBus - MP-Bus, MPBus - Romutec Handbedienung - Thermokon Thanos Raumbediengerät - Thermokon WRF06 Raumbediengerät - Thermokon WRF08 Raumbediengerät - 3-Phasen-Leistungsmessklemme 750-493 - LON - Grundfos Pumpen mit GENIbus Interface

CAD/CAE - Smart Data

CAD data

3D Download 753-648

URL

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Product family

750/753 Series I/O-System

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Subject to changes.
