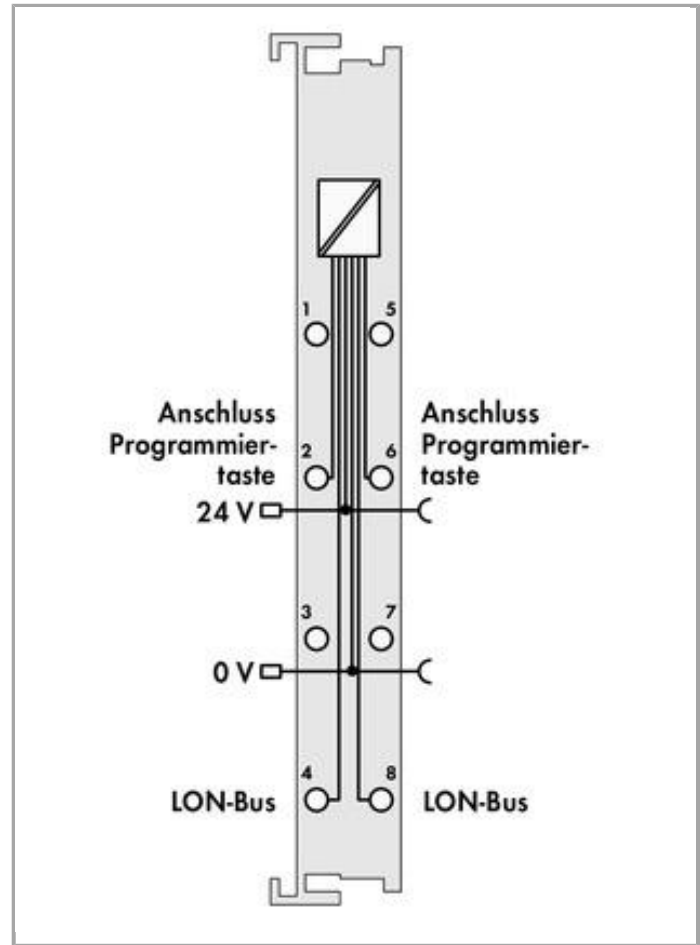
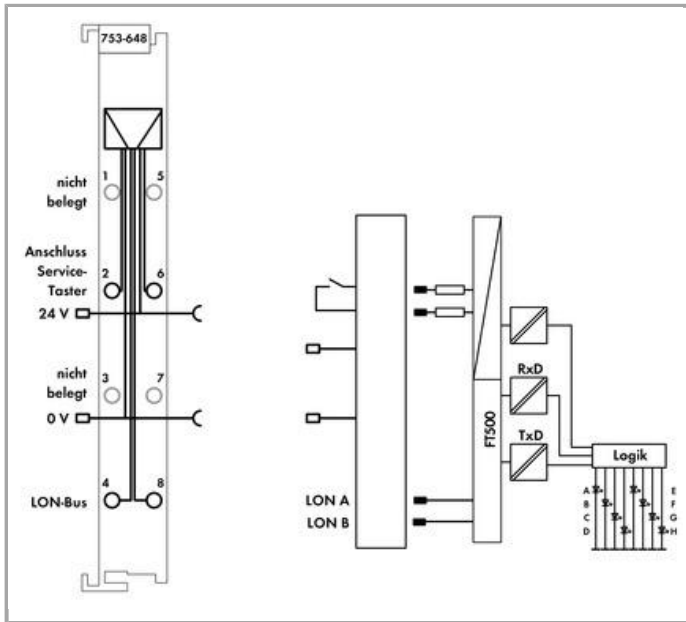


RoHS Compliant

[BOMcheck.net](http://BOMcheck.net)



### 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	0.078Mbit/s



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
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 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm <sup>2</sup> / 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	CE

### Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Degree of protection	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 <sub>2</sub> S contaminant concentration at a relative humidity < 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity < 75 %	25 ppm

### Commercial data

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

### Approvals / Certificates


#### Ex-Approvals

Logo	Approval	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	E198726 Sec.1 (HAZARDOUS LOCATIONS)

#### Country specific Approvals

Logo	Approval	Certificate name
	KC National Radio Research Agency	MSIP-REM-W43-MSM750

#### UL-Approvals

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

## Compatible products

## pluggable wiring tier



**Item no.: 753-150**  
753 Series coding elements

[www.wago.com/753-150](http://www.wago.com/753-150)

## shield connection



**Item no.: 790-108**  
Shield clamping saddle; 11 mm wide; diameter of compatible conductor

[www.wago.com/790-108](http://www.wago.com/790-108)



**Item no.: 790-116**  
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm

[www.wago.com/790-116](http://www.wago.com/790-116)



**Item no.: 790-124**  
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm

[www.wago.com/790-124](http://www.wago.com/790-124)



**Item no.: 790-140**  
Shield clamping saddle; diameter of compatible conductor

[www.wago.com/790-140](http://www.wago.com/790-140)



**Item no.: 790-208**  
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

[www.wago.com/790-208](http://www.wago.com/790-208)



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

[www.wago.com/790-216](http://www.wago.com/790-216)



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

[www.wago.com/790-220](http://www.wago.com/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

[www.wago.com/210-112](http://www.wago.com/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

[www.wago.com/210-113](http://www.wago.com/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

[www.wago.com/210-114](http://www.wago.com/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

[www.wago.com/210-115](http://www.wago.com/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

[www.wago.com/210-118](http://www.wago.com/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

[www.wago.com/210-196](http://www.wago.com/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

[www.wago.com/210-197](http://www.wago.com/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

[www.wago.com/210-198](http://www.wago.com/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

[www.wago.com/210-504](http://www.wago.com/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

[www.wago.com/210-505](http://www.wago.com/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

[www.wago.com/210-506](http://www.wago.com/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

[www.wago.com/210-508](http://www.wago.com/210-508)

### Supply module

**Item no.: 750-601**

Power Supply; 24 VDC

[www.wago.com/750-601](http://www.wago.com/750-601)**Item no.: 750-602**

Power Supply; 24 VDC

[www.wago.com/750-602](http://www.wago.com/750-602)**Item no.: 750-610**

Power Supply; 24 VDC; fuse holder; Diagnostics

[www.wago.com/750-610](http://www.wago.com/750-610)**Item no.: 750-612**

Power Supply; 0 ... 230 V AC/DC

[www.wago.com/750-612](http://www.wago.com/750-612)**Item no.: 753-602**

Power Supply; 24 VDC

[www.wago.com/753-602](http://www.wago.com/753-602)**Item no.: 753-612**

Power Supply; 0 ... 230 V AC/DC

[www.wago.com/753-612](http://www.wago.com/753-612)

### system box

**Item no.: 850-804**

IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip

[www.wago.com/850-804](http://www.wago.com/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

[www.wago.com/850-804/000-001](http://www.wago.com/850-804/000-001)**Item no.: 850-805**

IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip

[www.wago.com/850-805](http://www.wago.com/850-805)**Item no.: 850-814/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate

[www.wago.com/850-814/002-000](http://www.wago.com/850-814/002-000)**Item no.: 850-815/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate

[www.wago.com/850-815/002-000](http://www.wago.com/850-815/002-000)**Item no.: 850-816/002-000**

IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate







[www.wago.com/850-816/002-000](http://www.wago.com/850-816/002-000)**Item no.: 850-817/002-000**














IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate

[www.wago.com/850-817/002-000](http://www.wago.com/850-817/002-000)

	<b>Item no.: 850-825</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-825">www.wago.com/850-825</a>
	<b>Item no.: 850-826</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826">www.wago.com/850-826</a>
	<b>Item no.: 850-826/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-826/002-000">www.wago.com/850-826/002-000</a>
	<b>Item no.: 850-827</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827">www.wago.com/850-827</a>
	<b>Item no.: 850-827/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-827/002-000">www.wago.com/850-827/002-000</a>
	<b>Item no.: 850-828</b> IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828">www.wago.com/850-828</a>
	<b>Item no.: 850-828/002-000</b> IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip	<a href="http://www.wago.com/850-828/002-000">www.wago.com/850-828/002-000</a>
	<b>Item no.: 850-834</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	<a href="http://www.wago.com/850-834">www.wago.com/850-834</a>
	<b>Item no.: 850-835</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip	<a href="http://www.wago.com/850-835">www.wago.com/850-835</a>
	<b>Item no.: 850-836</b> IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	<a href="http://www.wago.com/850-836">www.wago.com/850-836</a>

#### Marking accessories

	<b>Item no.: 2009-145</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>
	<b>Item no.: 2009-145/000-002</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-002">www.wago.com/2009-145/000-002</a>
	<b>Item no.: 2009-145/000-005</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-005">www.wago.com/2009-145/000-005</a>
	<b>Item no.: 2009-145/000-006</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-006">www.wago.com/2009-145/000-006</a>
	<b>Item no.: 2009-145/000-007</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-007">www.wago.com/2009-145/000-007</a>
	<b>Item no.: 2009-145/000-012</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-012">www.wago.com/2009-145/000-012</a>

	<b>Item no.: 2009-145/000-023</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-023">www.wago.com/2009-145/000-023</a>
	<b>Item no.: 2009-145/000-024</b> Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type	<a href="http://www.wago.com/2009-145/000-024">www.wago.com/2009-145/000-024</a>
	<b>Item no.: 248-501</b> Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<b>Item no.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a>
	<b>Item no.: 248-501/000-005</b> Mini-WSB marking card; as card; plain; snap-on type	<a href="http://www.wago.com/248-501/000-005">www.wago.com/248-501/000-005</a>
	<b>Item no.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-006">www.wago.com/248-501/000-006</a>
	<b>Item no.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a>
	<b>Item no.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a>
	<b>Item no.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-017">www.wago.com/248-501/000-017</a>
	<b>Item no.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-023">www.wago.com/248-501/000-023</a>
	<b>Item no.: 248-501/000-024</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type	<a href="http://www.wago.com/248-501/000-024">www.wago.com/248-501/000-024</a>
	<b>Item no.: 750-103</b> Group marker carrier	<a href="http://www.wago.com/750-103">www.wago.com/750-103</a>
	<b>Item no.: 750-107</b> Group marker carrier	<a href="http://www.wago.com/750-107">www.wago.com/750-107</a>

## Downloads

## Documentation

## Manual





1.0 MB

WAGO LON Configurator for configuring WAGO 753-648 LON FTT Modules	Oct 31, 2012	5.0 MB	Download
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**Bid Text**

753-648	Jan 21, 2016	DOC 27.6 kB	Download
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**Additional Information**

Disposal; Electrical and electronic equipment, Packaging	Oct 15, 2018	265.8 kB	Download
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**System Description**

Overview on WAGO-I/O-SYSTEM 750 approvals	Jun 6, 2017	314.9 kB	Download
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750/753 Series I/O-System – General Product Information	May 29, 2018	2.0 MB	Download
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**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.	Mar 6, 2014	PDF 1.2 MB	Download
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**Libraries****Library**

Libraries for Building Automation CODESYS 2.3 This Zip-File contains WAGO I/O PRO libraries for Building Automation The following applications are supported: - DALI - DALI Sensors - DALI Colour Control - DALI Emergency Lighting - Enocean - SMI - HVAC Functions - Blind control, Dimmer, Latching Relay ... - Scheduler - KNX Functionblocks - BACnet - WINSTA Blind Control - DMX - Weather Station Elsner - M-Bus, MBus - MP-Bus, MPBus - Romutec - Thermokon WRF06 - Thermokon WRF08 - 3-Phase Power Measurement 750-493 - LON - Grundfos GENIbus Interface	Jan 25, 2019	ZIP 68.6 MB	Download
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**smartDATA****CAD data**

3D Download 753-648		URL	Download
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## Product family

### **750/753 Series I/O-System**

[Learn more about the product family.](#)

[Show all products from the family](#)

Subject to changes.

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