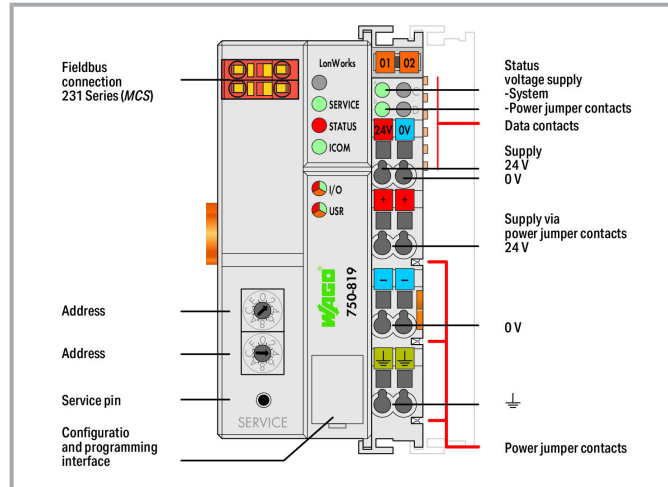




Color: ■■



Subject to changes. Please also observe the further product documentation!

WAGO Kontakttechnik GmbH & Co. KG
Hansastr. 27
32423 Minden
Phone: +49571 887-0 | Fax: +49571 887-169
Email: info.de@wago.com | Web: www.wago.com

Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Item description

The LONWORKS[®] Controller is an expansion for the WAGO I/O System.

Application programming is IEC 61131-3 compliant.

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.

Subject to changes. Please also observe the further product documentation!



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.

Note:

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

Data

Technical data

Visualization	without
Programming languages per IEC 61131-3	Instruction List (IL) Ladder Diagram (LD) Function Block Diagram (FBD), Continuous Function Chart (CFC) Structured Text (ST) Sequential Function Chart (SFC)
Programming environment	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)
Baud rate	-
Bus segment length (max.)	2700 m; 500 m (free topology); 2700 m (bus topology)
Transmission medium (communication/fieldbus)	Twisted pair - FTT
Topology	per LON specification
Number of fieldbus nodes on master (max.)	127
Program memory	128 kByte
Data memory	64 kByte
Non-volatile software memory	7 Kbytes
Number of modules per node (max.)	62
Supply voltage (system)	24 VDC (-15 ... +20 %); via pluggable connector (CAGE CLAMP [®] connection)
Input current (typ.) at nominal load (24 V)	500 mA
Power supply efficiency (typ.) at nominal load (24 V)	87 %
Power consumption (5 V system supply)	300 mA
Total current (system supply)	1,700 mA
Supply voltage (field)	24 VDC (-15 ... +20 %); via power jumper contacts

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Current carrying capacity (power jumper contacts)	10 A
Number of outgoing power jumper contacts	3
Isolation	500 V system/field

Connection data

Connection technology: communication/fieldbus	LonWorks: 1 x Male connector; 2-pole
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	6 x CAGE CLAMP®
Connection type (1)	System/field supply
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Connection technology: device configuration	1 x Male connector; 4-pole

Physical data

Width	50.5 mm / 1.988 inch
Height	100 mm / 3.937 inch
Depth	71.1 mm / 2.799 inch
Depth from upper edge of DIN-rail	63.9 mm / 2.516 inch

Mechanical data

Weight	194.5 g
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements

Surrounding air temperature (operation)	0 ... 55 °C
Surrounding air temperature (storage)	-25 ... 85 °C
Protection type	IP20
Pollution degree (5)	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); 5000 m (max.)
Relative humidity (without condensation)	95 %
Mounting position	any
Mounting type	DIN-35 rail
Vibration resistance	per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27

Subject to changes. Please also observe the further product documentation!

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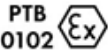



EMC immunity to interference	per EN 61000-6-2
EMC emission of interference	per EN 61000-6-4
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Fire load	2.677 MJ
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (Remote I/O)
PU (SPU)	1 Stück
Packaging type	box
Country of origin	DE
GTIN	4045454527037
Customs tariff number	85371091990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX 554086 X en.
 Ex nA IIC T4 Gc	CCCEX CQST/CNEX	CNCA-C23-01	2020312310000215
	EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02. B.00163/19
	INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079	BR-Ex_TÜV 12.1297 X
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 09.0001 X

Subject to changes. Please also observe the further product documentation!

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UL
Underwriters Laboratories Inc. (HAZARDOUS
LOCATIONS)


UL 121201

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- PFC750

UL-Approvals

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

Optional accessories

Shield termination

Shield clamping saddle			
	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm		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
	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm		www.wago.com/790-108
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor		www.wago.com/790-140
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm		www.wago.com/790-216
	Item no.: 790-220 Shield clamping saddle; 30 mm wide; 6 ... 20 mm		www.wago.com/790-220
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm		www.wago.com/790-208

System housing

System enclosure			
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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



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



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



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



Item no.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20

www.wago.com/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

www.wago.com/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

www.wago.com/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

www.wago.com/850-827/002-000



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

www.wago.com/850-826/002-000



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

www.wago.com/850-828/002-000



Item no.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip

www.wago.com/850-828



Item no.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20

www.wago.com/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

www.wago.com/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

www.wago.com/850-836

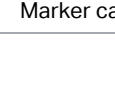

Carrier rail

Mounting accessories








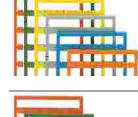
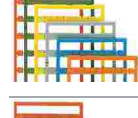
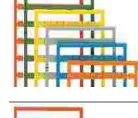
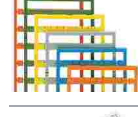

Subject to changes. Please also observe the further product documentation!

	Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	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; copper-colored	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; silver-colored	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; silver-colored	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; silver-colored	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; silver-colored	www.wago.com/210-508
	Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-113
	Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-118
	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; silver-colored	www.wago.com/210-112
	Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	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; silver-colored	www.wago.com/210-115
	Item no.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	www.wago.com/210-196

Marking accessories

Marker carrier		
	Item no.: 750-103 Group marker carrier	www.wago.com/750-103
Marker		
	Item no.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	www.wago.com/2009-145/000-006

Subject to changes. Please also observe the further product documentation!

	<p>Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white</p>	<p>www.wago.com/2009-145</p>
	<p>Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow</p>	<p>www.wago.com/2009-145/000-002</p>
	<p>Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray</p>	<p>www.wago.com/2009-145/000-007</p>
	<p>Item no.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red</p>	<p>www.wago.com/2009-145/000-005</p>
	<p>Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange</p>	<p>www.wago.com/2009-145/000-012</p>
	<p>Item no.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green</p>	<p>www.wago.com/2009-145/000-023</p>
	<p>Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p>	<p>www.wago.com/2009-145/000-024</p>
	<p>Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p>	<p>www.wago.com/248-501/000-006</p>
	<p>Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p>	<p>www.wago.com/248-501/000-007</p>
	<p>Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p>	<p>www.wago.com/248-501/000-002</p>
	<p>Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p>	<p>www.wago.com/248-501/000-012</p>
	<p>Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<p>www.wago.com/248-501</p>

Subject to changes. Please also observe the further product documentation!



Item no.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

www.wago.com/248-501/000-017



Item no.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

www.wago.com/248-501/000-005



Item no.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

www.wago.com/248-501/000-024



Item no.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/248-501/000-023



Item no.: 750-100
Marker card; as a DIN A4 sheet; plain

www.wago.com/750-100

Group marker carrier



Item no.: 750-106
Group marker carrier

www.wago.com/750-106

General accessories

Bluetooth



Item no.: 750-921
Bluetooth® Adapter

www.wago.com/750-921

Communication cable



Item no.: 750-923
Configuration cable; USB connector; Length: 2.5 m

www.wago.com/750-923



Item no.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

www.wago.com/750-923/000-001

Software

Basic version



Item no.: 759-333
WAGO-I/O-PRO

www.wago.com/759-333



Item no.: 759-333/000-923
WAGO-I/O-PRO; USB-Set

www.wago.com/759-333/000-923

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Item no.: 759-911
WAGO-I/O-PRO; CD

Downloads

Documentation

Manual

LonWorks® fieldbus coupler / LONWORKS® programmable fieldbus controller FTT, digital and analog signals 160 kB / 78 kbps, digital and analog signals	V 2.1.1	pdf 1.9 MB	Download
System Manual WAGO I/O System 750 / 753 Decentralized Automation Technology	V 3.0.2 2021. 4. 27.	pdf 6.6 MB	Download
System Manual Series 750/753 Online HTML		URL	Download

Additional Information

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

Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
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Application Notes

Application Note CoDeSys 2.3

Application examples of the LonWorks 750-819 fieldbus controller The implementation of several practical LON applications using the 750-819 fieldbus controller is described in this document.	2014. 3. 20.	PDF 3.5 MB	Download
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Libraries

Plugin

WAGO TOPLON® PRIO für LNS 3 Datenbanken	1.60.0000	zip 9.5 MB	Download
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Library

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Condition monitoring with 750-645 The WagoLib_VIO.lib library provides a function block which allows to configure the module 750-645.	1.0.1 2011. 7. 27.	zip 112.8 kB	Download
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Control DC motor with 750-636 The "MC1_DC_Control.lib" library provides a function block which allows to configure the module 750-636 as well as to operate a DC motor.	1.0.0 2017. 11. 8.	zip 150.5 kB	Download
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Engineering-Software

Configuration and Commissioning Software

WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	2.3.9.61 2015. 7. 3.	zip 372.0 MB	Download
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WAGO Extension Setting / Serie 750	2.0.2 2011. 3. 9.	zip 5.4 MB	Download
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Runtime Software

Firmware

Firmware: 750-819 Controller LonWorks®	09 2018. 6. 26.	zip 448.2 kB	Download
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Firmware 0750-0880	V 16.0 2021. 7. 27.	zip 4.6 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 750-819		URL	Download
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CAE data

WSCAD Universe 750-819		URL	Download
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ZUKEN Portal 750-819		URL	Download
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EPLAN Data Portal 750-819		URL	Download
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Subject to changes. Please also observe the further product documentation!



Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 2014. 9. 10.	zip 4.8 MB	Download
WAGO TOPLON® Neuron-C Library		zip 191.2 kB	Download

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-819 Controller LonWorks®	URL	Download
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Installation Notes

Product family

Controller 750
[Show all products from the family](#)

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