Color: ▬
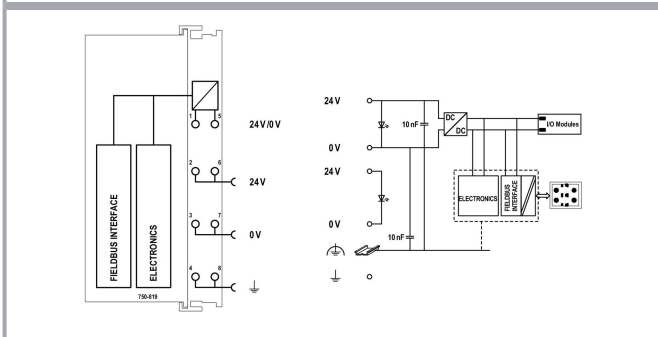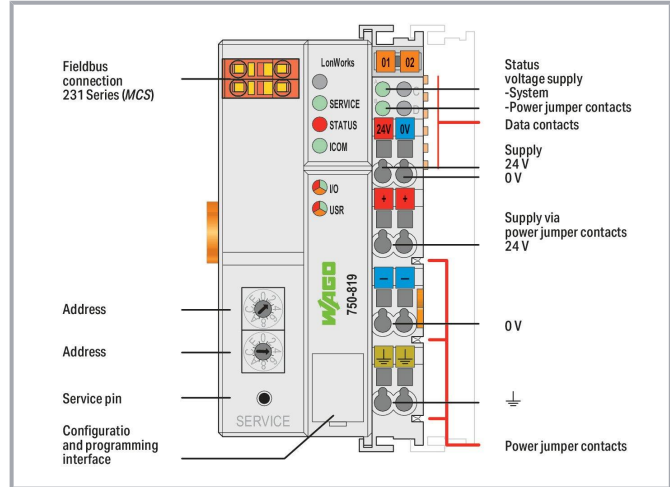

Item description

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

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

WAGO 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.

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.

The Neuron chip connection is made through IEC-61131-3 variables with special addresses. These can be imported via LNS™-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.

Data
Notes

Note

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.

Technical data

Visualization	none
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

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

Topology	per LON specification
Number of fieldbus nodes on master (max.)	127
Program memory	128 KB
Data memory	64 KB
Non-volatile software memory	7 Kbytes
Number of modules per node (max.)	62
Transceiver	FTT 10 A
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 %
Current consumption (5 V system supply)	300 mA
Total current (system supply)	1,700 mA
Supply voltage (actuator)	N/A N/A
Supply voltage (field)	24 VDC (-15 … +20 %); via power jumper contacts
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 inches
Connection technology: device configuration	1 x Male connector; 4-pole

Physical data

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

Mechanical Data

Weight	194.5 g
Color	light gray

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

Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	0 … +55 °C
Ambient temperature (storage)	-25 … +85 °C
Protection type	IP20
Pollution degree	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
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	2.901 MJ
Permissible H_2S 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 (I/O System)
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE
GTIN	4045454527037
Customs tariff number	85371091990

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

Environmental Product Compliance

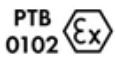|	
CAS-No.	11120-22-2
	12060-00-3
	1303-86-2
	1317-36-8
	541-02-6
	7439-92-1
	79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol
	Decamethylcyclopentasiloxane [D5]
	Diboron trioxide
	Lead
	Lead monoxide
	Lead silicate
	Lead titanium oxide (PbTiO3)
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
	7(a)
	7(c)-I
	7(c)-II
SCIP notification number (Bulgaria)	4607aa0a-34a8-4bd1-9a41-d4ee7d89dda4
SCIP notification number (Czech Republic)	2ad64db0-eaf5-4e24-9412-bfa938fd1776

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
	EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43- PFC750
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1

Declarations of conformity and manufacturer's declarations

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

Logo	Approval	Additional Approval Text	Certificate name
CE	**EU-Declaration of Conformity** WAGO GmbH & Co. KG	-	-
UKCA	**UK-Declaration of Conformity** WAGO GmbH & Co. KG	-	-

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
PTB 0102	**ATEX** TUEV Nord Cert GmbH	EN 60079-0	TUEV_14_ATEX_148929_X (II 3 G Ex ec IIC T4 Gc)
CCC	**CCC** CNEX	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
EAC Ex	**EAC** Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163 /19 (2Ex nA IIC T4 Gc X)
IECEx	**IECEx** TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO	**INMETRO** TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
DEKRA 8505 UKEX	**UKEx** WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX003X_ec
UL	**UL** Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1

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

Optional accessories

Communication

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 |

Shield termination

Shield clamping saddles

| | 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 |

Carrier rail

Mounting accessories

| | 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

Subject to changes. Please also observe the further product documentation!
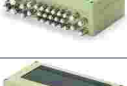
	Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-506
	Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-508
	Item no.: 210-113 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

System housing

System enclosure

	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

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

	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

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

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!

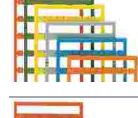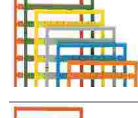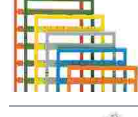|	Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
	Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	www.wago.com/2009-145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

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

Downloads
Documentation

Manual

System Manual WAGO I/O System 750/753 Decentralized Automation Technology	V 3.3.0 2023 May 4	pdf 8.8 MB	Download
Product 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 Series 750/753 Online HTML		URL	Download

Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/*	2023 Apr 26	pdf 163.6 kB	Download

Additional Information

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

Disposal and Recycling	V 1.1.0	pdf	Download
Electrical and electronic equipment, Batteries, Packaging	2022 Aug 18	2.2 MB	

Libraries

Plugin

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

Library

Control DC motor with 750-636	1.0.0	zip	Download
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.	2017 Nov 8	150.5 kB	
Condition monitoring with 750-645	1.0.1	zip	Download
The WagoLib_VIO.lib library provides a function block which allows to configure the module 750-645.	2011 Jul 27	112.8 kB	

Engineering-Software

Configuration and Commissioning Software

WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	V 2.3.9.68	zip	Download
Für ein Firmwareupdate können Sie sich jederzeit an den Support wenden.	2022 Feb 17	125.5 MB	

Runtime Software

Firmware

0750-0819, Controller LonWorks®	V 09	zip	Download
WAGO_FW0750-0819_V010709_IX09_S	2021 Oct 19	561.8 kB	

CAD/CAE-Data

CAD data

2D/3D Models 750-819		URL	Download

CAE data

WSCAD Universe 750-819		URL	Download

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

ZUKEN Portal 750-819		URL	Download
EPLAN Data Portal 750-819		URL	Download

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 2014 Sep 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

Installation Notes

Product family

Controller 750
Show all products from the family

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

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Do you have any questions about our products?

We are always happy to take your call at +49 (571) 887-44222.