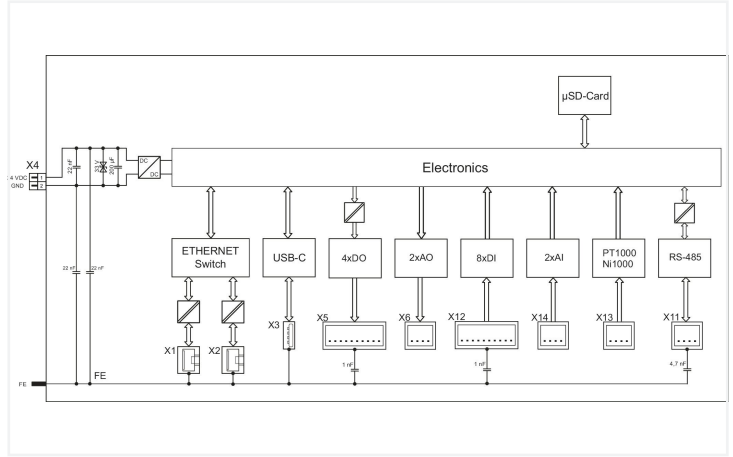
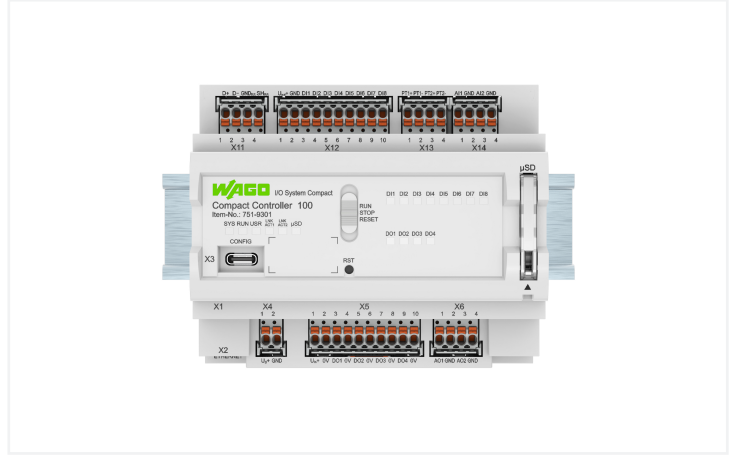
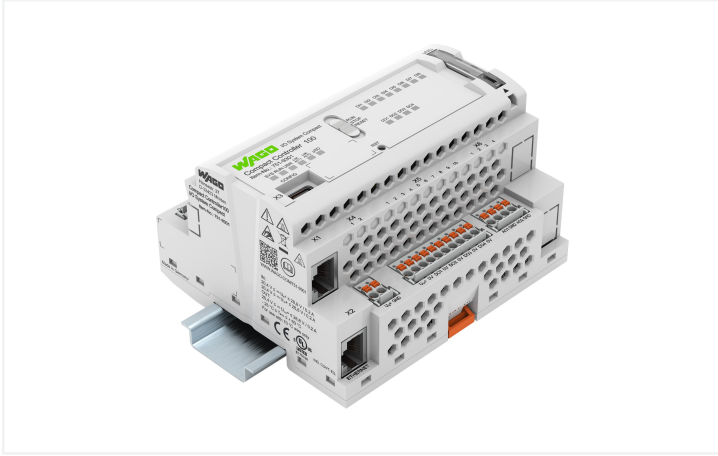
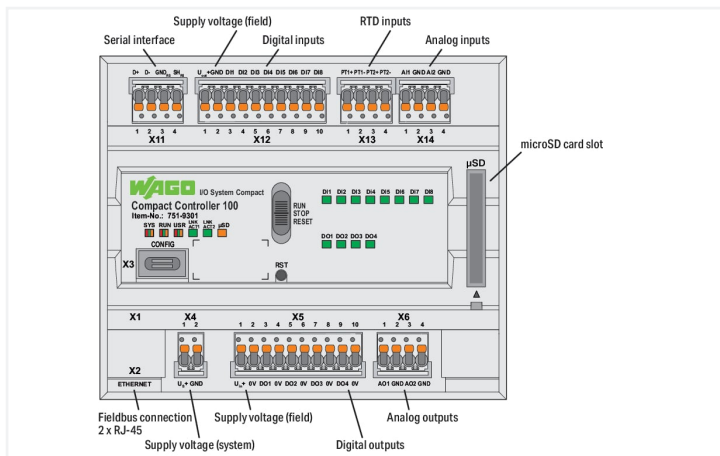


Data Sheet | Item Number: 751-9301

Compact Controller 100; 8DI 4DO 2AI 2AO 2NI1K/PT1K 1RS485; 2 x ETHERNET; SD

<https://www.wago.com/751-9301>





The Compact Controller 100, with a real-time Linux® operating system, gives users maximum freedom. This compact device is freely programmable with CODESYS V3, but can also be used for IEC 61131-independent engineering, for instance with Node-RED, Python or C++. Later installation of Docker® as a virtualization environment is also straightforward. This addition makes the Compact Controller 100 a full-fledged IIoT device with gateway functionality. In this way, WAGO combines the requirements of two different domains within one device in the best possible way, bringing its expertise to bear where "automation meets IT." Another advantage of the Compact Controller 100: Thanks to its design as a DIN-rail builtin installation device per DIN 43880, it can also be mounted in small distribution boards. The I/O unit is housed with the controller in a compact enclosure, so it requires no additional space for other control components. The wiring interface is removable, providing advantages for installation and commissioning.

The Benefits for You:

- Quick, easy, flexible engineering
- Controller with real-time Linux® operating system
- Compact controller with I/Os in a DIN-rail-mount device housing

Technical data	
Communications	Modbus (TCP, UDP) EtherCAT® Master EtherNet/IP™ Adapter (slave) EtherNet/IP™ Scanner Modbus RTU RS-485 interface OPC UA Server/Client MQTT Telecontrol protocols, requires an additional license BACnet/IP, requires an additional license
ETHERNET protocols	DHCP DNS NTP FTP FTPS SNMP HTTP HTTPS SSH
Visualization	Web-Visu
Operating system	Real-time Linux (with PREEMPT_RT patch)
CPU	Cortex A7; 650 MHz
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	CODESYS V3.5 Node RED
Configuration options	CODESYS V3.5 Ethernet Settings Web-Based Management WAGOupload WAGO Solution Builder
Transmission rate	ETHERNET: 10/100 Mbit/s
Transmission medium (communication/fieldbus)	ETHERNET: Twisted pair S-UTP; 100 Ω; Cat. 5; 100 m maximum cable length
Main memory (RAM)	512 MB
Internal memory (flash)	4096 MB
Non-volatile hardware memory	128 KB
Program memory	32 MB
Data memory	128 MB
Non-volatile software memory	128 KB
Type of memory card	microSD up to 32 GB (all guaranteed properties only valid with WAGO's memory card)
Memory Card Slot	Push-push mechanism
Indicators	LED (SYS, RUN), red/green: Status of system; LED (USR) red/green: User programmable status (can be used via CODESYS library); LED (SD) orange: Status of microSD; LED (LNK/ACT) green: Network connection via ports 1 ... 2; LED (DI1 ... 8) green: Status of inputs; LED (DO1 ... 4) green: Status of outputs
Control Elements	Operating mode switch (RUN, STOP, RESET); reset button
Supply voltage (system)	24 VDC (-15 ... +20 %); via pluggable connector (<i>picoMAX</i> ® 3.5; Push-in CAGE CLAMP® connection)

Technical data

Current consumption (system) max.	500 mA
Supply voltage (field)	24 VDC (-15 ... +20 %); via pluggable connector (<i>picoMAX</i> ® 3.5; Push-in CAGE CLAMP® connection)
Current consumption (field) max. (digital outputs, U _{in} +)	2000 mA
Isolation	1250 V (DC 1 min., between system and field level (digital outputs))
Number of digital inputs	8
Input characteristic	Type 3 (per EN 61131-2)
Number of digital outputs	4
Output current (per channel)	500 mA (DC)
Output current	short-circuit-protected
Signal type	Voltage Resistance measurement
Signal type (voltage)	0 ... 10 VDC
Number of analog inputs	2
Resolution of analog inputs	16 bits
Number of analog outputs	2
Resolution of analog outputs	12 bits
Load impedance (voltage output)	≥ 5 kΩ
Number of measurement inputs	2
Temperature range	-60 ... 350 °C, Pt1000, Ni1000

Connection data

Connection technology: communication/fieldbus	Modbus (TCP, UDP): 2 x RJ-45; RS-485 interface: 1 x Female connector, 4-pole; Push-in CAGE CLAMP®
Connection technology: system supply	1 x Female connector, 2-pole; Push-in CAGE CLAMP®
Connection technology: field supply	2 x Female connector, 10-pole; Push-in CAGE CLAMP®
Solid conductor	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Fine-stranded conductor	0.2 ... 1.5 mm ² / 24 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches

Physical data

Width	108 mm / 4.252 inches
Height	90 mm / 3.543 inches
Depth from upper-edge of DIN-rail	55 mm / 2.165 inches

Mechanical data

Weight	190 g
Housing material	Polycarbonate, polyamid
Conformity marking	CE; UKCA

Environmental requirements

Ambient temperature (operation)	-25 ... +60 °C
Ambient temperature (storage)	-40 ... +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	0 ... 2000 m / 0 ... 6562 ft
Relative humidity (without condensation)	95 %
Mounting position	any
Mounting type	DIN-35 rail
Vibration resistance	1g 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 61000-6-3

Environmental requirements

Fire load	0 MJ
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Commercial data

ETIM 9.0	EC000236
ETIM 8.0	EC000236
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4066966192865
Customs tariff number	85371091990

Environmental Product Compliance

REACH Candidate List Substance	Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant, No Exemption
SCIP notification number (Austria)	13e43657-c079-4877-9572-133b61a75030
SCIP notification number (Belgium)	88db0a66-266c-4eee-8bc0-ca9419ffa2ce
SCIP notification number (Bulgaria)	11dc09ae-19b1-4f53-a36d-08c843f71d7a
SCIP notification number (Czech Republic)	bec5377d-5859-41c6-b4cb-48c5d05e2a75
SCIP notification number (Denmark)	e9279165-016d-453f-9dcc-3276a5d77b81
SCIP notification number (Finland)	9e16130a-1548-4524-851e-73aef0bf2f7d
SCIP notification number (France)	3c08470f-91e2-4da4-9406-fb48097d5db5
SCIP notification number (Germany)	5d894a4c-6de8-4534-98b1-627be0119caf
SCIP notification number (Hungary)	d58f4caf-ceb4-4db3-9661-bea780fa2c68
SCIP notification number (Italy)	38077f8a-efe7-497e-89aa-70f38853d1bf
SCIP notification number (Netherlands)	87a8e65c-e155-4a98-8930-8cb1aff7c42
SCIP notification number (Poland)	365a1927-9cc7-48b5-abfb-cb13c9ef76f4
SCIP notification number (Romania)	3b91c177-6f13-4542-89b8-455ac81906cb
SCIP notification number (Sweden)	dd94e5b3-71a4-44f4-ad14-2ccabcc82a1c

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 61010-2-201	E175199

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV GL SE	DNV-CG-0339, Aug. 2021	DNV TAA00003G6

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 751-9301



Documentation

Manual

Product Manual Compact Controller 100	1.7.0 16.08.2024	pdf 2190.55 KB	
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System Description

Compact Controller 100, Allgemeine Produktinformationen	pdf 238.31 KB	
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Bid Text

751-9301	xml 8.82 KB	
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751-9301	docx 29.96 KB	
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CAD/CAE-Data

CAD data

2D/3D Models 751-9301	
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Engineering-Software

Configuration and Commissioning Software

CODESYS V3.5	png 315.13 KB	
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WAGOupload	1.16.1.0 02.02.2022	zip 12111.45 KB	
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Runtime Software

Firmware

0751-9301, Compact Controller 100	V 23 30.11.2022	zip 97394.03 KB	
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751-9301; Compact Controller 100	V 23 30.11.2022	zip 96534.07 KB	
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1 Compatible Products

1.1 Product Expansions

1.1.1 Runtime software



Item No.: 2759-2283/211-1000
Runtime; BACnet; 300; M; Single License; Online activation



Item No.: 2759-2273/211-1000
Runtime; BACnet; 300; S; Single License; Online activation



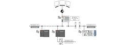
Item No.: 2759-283/211-1000
Runtime; BACnet; 300; Single License; Online activation



Item No.: 2759-2293/211-1000
Runtime; DNP3 Master; M; Single License; Online activation



Item No.: 2759-2290/211-1000
Runtime; DNP3 Slave; Single License; Online activation



Item No.: 2759-293/211-1000
Runtime; IEC60870 Master; M; Single License; Online activation



Item No.: 2759-290/211-1000
Runtime; IEC60870 Slave; Single License; Online activation



Item No.: 2759-2243/211-1000
Runtime; IEC61850 Client; M; Single License; Online activation



Item No.: 2759-2240/211-1000
Runtime; IEC61850 Server; Single License; Online activation



Item No.: 2759-248/211-1000
Runtime; Multi Cloud Connectivity; Single License; Online activation



Item No.: 2759-247/211-1000
Runtime; Sparkplug; Single License; Online activation

1.1.2 Software Application



Item No.: 8101-2000/000-025
Application Load Management; Basic Software

1.2 Optional Accessories

1.2.1 Female connector

1.2.1.1 Female connector/socket



Item No.: 2091-1130
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; 1,50 mm²; light gray



Item No.: 2091-1110/002-000
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; Gripping plate sliding connector release; 1,50 mm²; light gray



Item No.: 2091-1110
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 10-pole; Gripping plate; 1,50 mm²; light gray



Item No.: 2091-1122
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 2-pole; 1,50 mm²; light gray



Item No.: 2091-1102/002-000
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 2-pole; Gripping plate sliding connector release; 1,50 mm²; light gray



Item No.: 2091-1102
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 2-pole; Gripping plate; 1,50 mm²; light gray



Item No.: 2091-1124
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 4-pole; 1,50 mm²; light gray



Item No.: 2091-1104/002-000
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 4-pole; Gripping plate sliding connector release; 1,50 mm²; light gray



Item No.: 2091-1104
1-conductor female connector; push-button; Push-in CAGE CLAMP®; 1.5 mm²; Pin spacing 3.5 mm; 4-pole; Gripping plate; 1,50 mm²; light gray

1.2.2 Memory card

1.2.2.1 Memory card



Item No.: [758-879/000-3102](#)

Memory Card SD Micro; 2 GByte

Item No.: [758-879/000-3108](#)

Memory Card SD Micro; pSLC-NAND; 8 GB; Temperature range: -40 to 90°C

1.2.3 Tool

1.2.3.1 Operating tool



Item No.: [2092-1630](#)

Unlocking tool; orange