



The 750-832 BACnet/IP Controller connects the WAGO I/O System to the BACnet protocol and supports the B-BC BACnet device profile per DIN EN ISO 16484-5. It communicates with other BACnet devices via BACnet/IP.

The controller provides the three following functionalities:

1. Native server: For each channel, appropriate BACnet objects are generated automatically for the digital and analog I/O modules that are connected to the controller.
2. Application server: Other supported BACnet objects can be created via IEC 61131-3 programming environment and made available to a BACnet network.
3. Application client: Using the client functionality, objects and their properties can be accessed by other BACnet devices.

Two ETHERNET interfaces and an integrated switch allow the fieldbus to be wired in a line topology, eliminating the need for additional network devices, such as switches or hubs. Both interfaces support autonegotiation and Auto-MDI(X).

The DIP switch configures the last byte of the IP address and may be used for IP address assignment. An integrated Webserver provides configuration options to the user, while displaying the controller's status information.

The IEC 61131-3 programmable controller is multitasking-capable and features a capacitor-backed RTC. A data memory of 8 MB is available.

The 750-832 Controller is equipped with a removable memory card slot. A memory card can be used to transfer device parameters or files (e.g., boot files) from one controller to another. The memory card can be accessed via FTP and be used as an additional drive.

The controller can process a maximum of 1000 simple BACnet objects. The actual number that can be implemented in the project can be reduced with complex object types.

750-832/000-002 Controllers support a maximum of 256 BACnet objects.

Start-up and configuration of the BACnet networks is performed using the WAGO BACnet Configurator's Windows software.

Notes

Note	The WAGO BACnet Configurator can be downloaded for free at www.wago.com .
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Technical data

Communication	BACnet/IP Modbus (TCP, UDP)
ETHERNET protocols	HTTP(S) BootP DHCP DNS SNTP FTP(S) SNMP
Visualization	Web-Visu
CPU	32 bits
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)
Configuration options	WAGO-I/O-CHECK BACnet Configurator Web-Based Management
Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Baud rate	10/100 Mbit/s
Transmission medium (communication/fieldbus)	Twisted pair S-UTP; 100 Ω; Cat. 5; 100 m maximum cable length
Transmission performance	Class D per EN 50173
Program memory	8 MB
Data memory	8 MB
Non-volatile software memory	32 KB
Type of memory card	SD and SDHC up to 32 GB (all guaranteed properties only valid with WAGO's memory card)
Memory card slot	Push-push mechanism; cover lid (sealable)
Number of modules per node (max.)	250
Number of modules without a bus extension (max.)	64
Input and output process image (fieldbus) max.	1020 words/1020 words
Device-specific	BACnet device profile: B-BC (BACnet building controller); BACnet revision: 12
Indicators	LED (LINK/ACT) green: Network connection via ports 1 ... 2; LED (MS/BT, NS) red/green: Status of node/BACnet, network; LED (I/O, USR) red/green/orange: Local data bus status, status programmable by user; LED (A, B) green: Status of system power supply, field supply
Supply voltage (system)	24 VDC (-25 ... +30 %); 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)	90 %
Current consumption (5 V system supply)	440 mA
Total current (system supply)	1700 mA
Supply voltage (field)	24 VDC (-25 ... +30 %); 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	BACnet/IP: 2 x RJ-45; Modbus (TCP, UDP): 2 x RJ-45
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	6 x CAGE CLAMP®
Connection type 1	System/field supply
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Connection technology: device configuration	1 x Male connector; 4-pole

Physical data

Width	61.5 mm / 2.421 inches
Height	100 mm / 3.937 inches
Depth	71.9 mm / 2.831 inches
Depth from upper-edge of DIN-rail	64.7 mm / 2.547 inches

Mechanical data

Weight	151.8 g
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	4g 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
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Fire load	2.484 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

ETIM 8.0	EC000236
ETIM 7.0	EC000236
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4055143888509
Customs tariff number	85371091990

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Austria)	b4c207e4-9db0-46a7-9386-3444704cb6ed
SCIP notification number (Belgium)	be6848a5-94b0-443a-8706-b1168122f237
SCIP notification number (Bulgaria)	551f2c71-bd37-417d-9de2-d592a20001a7
SCIP notification number (Czech Republic)	add2420e-0843-428b-a2e6-67dc21e70aaf
SCIP notification number (Denmark)	c49426f2-a1a3-4e20-b8b2-656b0ce6f25b
SCIP notification number (Finland)	15200df2-cda1-44ff-8911-2be00d00a796
SCIP notification number (France)	fda902ea-2bb3-4c6a-ab32-8072395ccf68
SCIP notification number (Germany)	1d9ff35a-a84c-4820-adcd-9be5c4ffc22c
SCIP notification number (Hungary)	85543a5b-8d42-4375-ac2e-f64ec11e8a82
SCIP notification number (Italy)	d060cc4c-1fae-4bed-bb13-f7e02740732e
SCIP notification number (Netherlands)	18408e02-dc9f-48cd-bcf7-21a7be43065c
SCIP notification number (Poland)	cafbb140-537c-429f-a702-9985cad1e3f8
SCIP notification number (Romania)	7dcfa7c7-19ac-4e54-b383-fe2ae0713f43
SCIP notification number (Sweden)	ee922989-e886-4cc0-9ad7-586b3e5a56be

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungsstelle	TP TC 020/2011	EAC RU C-DE.AM02. B.00087/19
EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AZ58. B.2173-21 e (2Ex e IIC T4 Gc X)
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-PFC750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	-	E175199

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



Approval	Standard	Certificate Name
BSH Bundesamt fuer Seeschifffahrt und Hydrographie	-	1104
DNV DNV GL SE	DNV-CG-0339, Aug.2021	TAA0000194

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
CCCEX CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
IECEX TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 14.0035 X (Ex ec IIC T4 Gc)

Approvals for hazardous areas		
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	BR-Ex_TÜV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726 Sec.1

Protocol and fieldbus specific certificates		
Approval	Standard	Certificate Name
BACnet WSP Cert	-	BTL-30465

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 750-832/000-002	↓

Documentation

Manual			
Product Manual Con- troller BACnet/IP; G4; 2ETH; SD	V 1.1.1 25.05.2022	pdf 6351.62 KB	↓
System Manual WAGO I/O System 750/753	V 3.3.3 29.08.2023	pdf 8512.61 KB	↓
System Manual Series 750/753			↓

System Description		
Overview on WAGO-I/ O-SYSTEM 750 appro- vals		pdf 770.48 KB
750 Controller, General Product Information		pdf 507.50 KB

Bid Text			
750-832/000-002	21.05.2019	xml 10.48 KB	↓
750-832/000-002	21.05.2019	docx 22.01 KB	↓
ausschreiben.de 750-832/000-002			↓

Instruction Leaflet			
CCC Ex (Additional in- formation)	26.04.2023	pdf 159.76 KB	↓

Engineering-Software

Configuration and Commissioning Software			
WAGO-IO-PRO Demo- Version (759-912) / Se- rie 750, 758 und 762	V 2.3.9.68 17.02.2022	zip 122524.17 KB	↓
(759-316) WAGO Ether- net Settings / Serie 750	06.18.01.01 02.09.2021	zip 26678.54 KB	↓
WAGOupload	1.16.1.0 02.02.2022	zip 12111.45 KB	↓

Runtime Software

Firmware

0750-0832/0000-000x, Controller BACnet/IP	V 08 19.10.2021	zip 5435.67 KB	
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1 Compatible Products

1.1 Required Accessories

1.1.1 Memory card

1.1.1.1 Memory card



Item No.: 758-879/000-2108

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

1.2 Optional Accessories

1.2.1 Cables and connectors

1.2.1.1 Connector plug



Item No.: 750-979/000-011

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 22; Strain relief



Item No.: 750-979/000-021

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 24; Strain relief



Item No.: 750-979/000-012

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 22; Strain relief



Item No.: 750-979/000-022

Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 24; Strain relief



Item No.: 750-977/000-011

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22



Item No.: 750-978/000-011

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22; Strain relief



Item No.: 750-977/000-021

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24



Item No.: 750-978/000-021

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24; Strain relief



Item No.: 750-977/000-012

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22



Item No.: 750-978/000-012

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22; Strain relief



Item No.: 750-977/000-022

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24



Item No.: 750-978/000-022

Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24; Strain relief



Item No.: 750-975

ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

1.2.2 Communication

1.2.2.1 Communication cable



Item No.: 750-923

Configuration cable; USB connector;
Length: 2.5 m

Item No.: 750-923/000-001

Configuration cable; USB connector;
Length: 5 m

1.2.3 DIN-rail

1.2.3.1 Mounting accessories



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

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

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

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



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

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

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

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



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

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

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

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

1.2.4 Marking

1.2.4.1 Group marker carrier



Item No.: 750-106

Group marker carrier

1.2.4.2 Marker



Item No.: 750-100

Marker card; as a DIN A4 sheet; plain

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

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

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



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

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

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

Item No.: 2009-145

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white



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

Item No.: 248-501/000-006

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

Item No.: 248-501/000-007

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

Item No.: 248-501/000-023

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

1.2.4.2 Marker



Item No.: [248-501/000-017](#)

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

Item No.: [248-501/000-012](#)

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

Item No.: [248-501/000-005](#)

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

Item No.: [248-501/000-024](#)

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



Item No.: [248-501](#)

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

Item No.: [248-501/000-002](#)

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

1.2.4.3 Marker carrier



Item No.: [750-103](#)

Group marker carrier

1.2.5 Shield termination

1.2.5.1 Shield clamping saddles



Item No.: [790-108](#)

Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm

Item No.: [790-208](#)

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

Item No.: [790-116](#)

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

Item No.: [790-216](#)

Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: [790-124](#)

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

Item No.: [790-220](#)

Shield clamping saddle; 30 mm wide; 6 ... 20 mm

Item No.: [790-140](#)

Shield clamping saddle; diameter of compatible conductor

1.2.6 Software

1.2.6.1 Basic version



Item No.: [759-333](#)

WAGO-I/O-PRO

Item No.: [759-333/000-923](#)

WAGO-I/O-PRO; USB-Set

1.2.7 System enclosure

1.2.7.1 System enclosure



Item No.: [850-825](#)

IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20

Item No.: [850-826](#)

IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip

Item No.: [850-827](#)

IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip

Item No.: [850-828](#)

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



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

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

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

Item No.: [850-834](#)

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

1.2.7.1 System enclosure



Item No.: 850-835

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



Item No.: 850-836

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



Item No.: 850-814/002-000

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



Item No.: 850-815/002-000

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



Item No.: 850-816/002-000

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



Item No.: 850-817/002-000

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