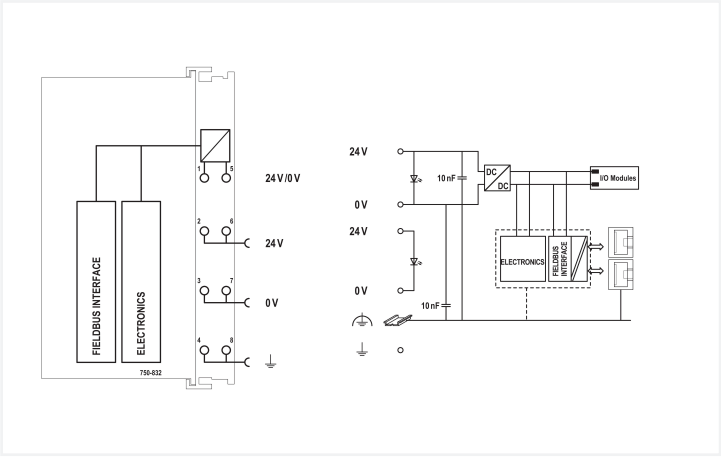
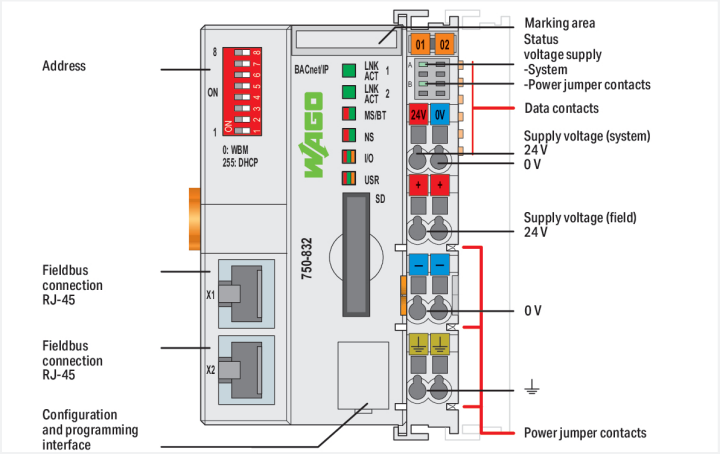
# Data Sheet | Item Number: 750-832

Controller BACnet/IP; 4th generation; 2 x ETHERNET, SD Card Slot

https://www.wago.com/750-832






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.
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. |

## Technical data

| | |
|---|---|
| Communications | BACnet/IP<br>Modbus (TCP, UDP) |
| ETHERNET protocols | HTTP(S)<br>BootP<br>DHCP<br>DNS<br>SNTP<br>FTP(S)<br>SNMP |
| Visualization | Web-Visu |
| CPU | 32 bits |
| Programming languages per IEC 61131-3 | Instruction List (IL)<br>Ladder Diagram (LD)<br>Function Block Diagram (FBD)<br>Continuous Function Chart (CFC)<br>Structured Text (ST)<br>Sequential Function Chart (SFC) |
| Programming environment | WAGO-I/O-*PRO* V2.3 (based on CODESYS V2.3) |
| Configuration options | WAGO-I/O-*CHECK*<br>BACnet Configurator<br>Web-Based Management |
| Transmission 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 |
| Powerfail RTC buffer | 6 days (min.) |
| 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, SELV/PELV (-25 … +30 %); via wiring interface (CAGE CLAMP® connection); External fuse required: 2 A slow-blow |
| Input current (typ.) at nominal load (24 V) | 500 mA |
| Power supply efficiency (typ.) at nominal load (24 V) | 90 % |
| Current consumption (system supply) | 440 mA |
| Total current (system supply) | 1700 mA |
| Supply voltage (field) | 24 VDC, SELV/PELV (-25 … +30 %); via power jumper contacts (supply via CAGE CLAMP® connection; distribution via spring contact); External fuse required: 10 A slow-blow |
| Current carrying capacity (power jumper contacts) | 10 A |
| Number of outgoing power jumper contacts | 3 |
| Isolation | 500 V system/field |


Continued on next page

## 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® |
| Connectable conductor materials | Copper |
| Connection type | System/field supply |
| Solid conductor | 0.08 … 2.5 mm² / 28 … 14 AWG |
| Fine-stranded conductor | 0.08 … 2.5 mm² / 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

| | |
|---|---|
| Mounting type | DIN-35 rail |

## Material data

| | |
|---|---|
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 2.222 MJ |
| Weight | 151.8 g |
| 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.) |
| Mounting position | Horizontal left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom |
| Relative humidity (without condensation) | 95 % |
| 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 |
| Permissible $H_2S$ contaminant concentration at a relative humidity 75 % | 10 ppm |
| Permissible $SO_2$ contaminant concentration at a relative humidity 75 % | 25 ppm |


Continued on next page

## Commercial data

| | |
|---|---|
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4055143888561 |
| Customs tariff number | 85371091990 |

## Product Classification

| | |
|---|---|
| UNSPSC | 32151705 |
| ETIM 9.0 | EC000236 |
| ETIM 10.0 | EC000236 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| CAS-No. | 1303-86-2<br>1317-36-8<br>7439-92-1<br>79-94-7 |
| REACH Candidate List Substance | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>Diboron trioxide<br>Lead<br>Lead monoxide |
| RoHS Compliance Status | Compliant,With Exemption |
| RoHS Exemption | 6(c)<br>7(a)<br>7(c)-I<br>7(c)-II<br>7c |
| SCIP notification number (Austria) | ec5f0e96-7501-4211-be8a-192fa75d829c |
| SCIP notification number (Belgium) | d48fb674-ecab-4a17-9416-d40af95661e5 |
| SCIP notification number (Bulgaria) | 481b6b3e-6d69-43e5-bf26-7f94f1aedec9 |
| SCIP notification number (Czech Republic) | 5778effb-5e7a-4998-acde-062cb1e7e4b7 |
| SCIP notification number (Denmark) | 28f67fe3-001e-4741-8b5d-bed2ab8f3a2b |
| SCIP notification number (Finland) | 1803eeb4-49e8-4300-bde9-f2ec52863363 |
| SCIP notification number (France) | 5b0a7fcb-9a93-48fa-9db9-b04d0df35e87 |
| SCIP notification number (Germany) | e96108de-fdcf-42cf-ae3c-b027d1f6505c |
| SCIP notification number (Hungary) | 02788357-ba60-4349-8a43-639be6ae1149 |
| SCIP notification number (Italy) | c9012bd0-07f3-444e-b984-e508a0139eef |
| SCIP notification number (Netherlands) | 0e0f2b7e-0b00-401d-b3a4-d6c4ef3078b7 |
| SCIP notification number (Poland) | bd0347d6-221d-47ee-bd2f-f41b1d525deb |
| SCIP notification number (Romania) | ae6710d5-1bde-4ba6-98a8-d0b6d0cbcd98 |
| SCIP notification number (Sweden) | cf148ad1-16ba-4fa0-b5d5-97968bfa247b |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| EAC<br>GZO Almaty Standart | TP TC 020/2011 | EAC CoC 03083 |
| KC<br>National Radio Research Agency | Article 58-2, Clause 3 | MSIP-REM-W43-PFC750 |
| UL<br>Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | - | E175199 |

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| BSH<br>Bundesamt fuer Seeschiffahrt und Hydrographie | - | 1104 |
| DNV<br>DNV GL SE | DNV-CG-0339,Aug.2021 | TAA0000194 |
| PRS<br>Polski Rejestr Statków | - | TE/1101/880590/23 |


Continued on next page

## Approvals for hazardous areas

| Approval | Standard | Certificate Name |
|---|---|---|
| ATEX<br>TUEV Nord Cert GmbH | EN 60079-0 | TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc) |
| IECEx<br>TUEV Nord Cert GmbH | IEC 60079-0 | IECEx TUN 14.0035 X (Ex ec IIC T4 Gc) |
| INMETRO<br>TÜV Rheinland do Brasil Ltda. | IEC 60079-0 | TÜV 12.1297 X |
| UKEx<br>WAGO GmbH & Co. KG | EN 60079-0 | UKCA_WA GO22UKEX003X_ec |
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

| | | | |
|---|---|---|---|
| Environmental Product Compliance 750-832 | | | |

### Documentation

**Manual**

| | | | |
|---|---|---|---|
| Product Manual Controller BACnet/IP; G4; 2ETH; SD | V 1.1.1<br>25.05.2022 | pdf<br>6351.62 KB | |
| System Manual Series 750/753 | | | |
| Product Manual WAGO BACnet Configurator | 1064596107 \| 14 \| en-US \| 2026-02-23 15:37<br>27.02.2026 | pdf<br>6755.78 KB | |

**Compatibility Information**

| | | | |
|---|---|---|---|
| BACnet Protocol Implementation Conformance (PICS) | V 1.0.0<br>13.10.2021 | pdf<br>526.16 KB | |

**System Description**

| | | | |
|---|---|---|---|
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf<br>770.48 KB | |
| 750 Controller, General Product Information | | pdf<br>507.50 KB | |

**Bid Text**

| | | | |
|---|---|---|---|
| 750-832 | 21.05.2019 | xml<br>10.69 KB | |
| 750-832 | 21.05.2019 | docx<br>21.94 KB | |
| ausschreiben.de<br>750-832 | | | |


Continued on next page

| Instruction Leaflet | | |
|---|---|---|
| CCC Ex (Additional information) | 26.04.2023 | pdf<br>159.76 KB |

## CAD/CAE-Data

| CAD data |
|---|
| 2D/3D Models 750-832 |

| CAE data |
|---|
| EPLAN Data Portal 750-832 |
| ZUKEN Portal 750-832 |

## Engineering-Software

| Configuration and Commissioning Software | | |
|---|---|---|
| WAGO Ethernet Settings | | |
| (759-316) WAGO Ethernet Settings / Serie 750 | 06.18.01.01<br>02.09.2021 | zip<br>26678.54 KB |
| WAGOupload | 1.16.1.0<br>02.02.2022 | zip<br>12111.45 KB |

## Runtime Software

| Firmware | | |
|---|---|---|
| 0750-0832/0000-000x, Controller BACnet/IP | V 11<br>02.07.2025 | zip<br>5650.92 KB |

## 1 Compatible Products

### 1.1 Optional Accessories

#### 1.1.1 Cables and connectors

##### 1.1.1.1 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


Continued on next page

## 1.1.2 Communication

### 1.1.2.1 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

## 1.1.3 DIN-rail

### 1.1.3.1 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.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored



Item No.: 210-114
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.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored

## 1.1.4 Marking

### 1.1.4.1 Group marker carrier



Item No.: 750-106
Group marker carrier

### 1.1.4.2 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



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


Continued on next page

### 1.1.4.2 Marker



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

### 1.1.4.3 Marker carrier



Item No.: 750-103
Group marker carrier

## 1.1.5 Memory card

### 1.1.5.1 Memory card

Item No.: 758-879/000-2116
Memory Card SD; pSLC-NAND; 16 GB; Temperature range: -40 to 85°C

## 1.1.6 Shield termination

### 1.1.6.1 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

## 1.1.8 System enclosure

### 1.1.8.1 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



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


Continued on next page

### 1.1.8.1 System enclosure



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