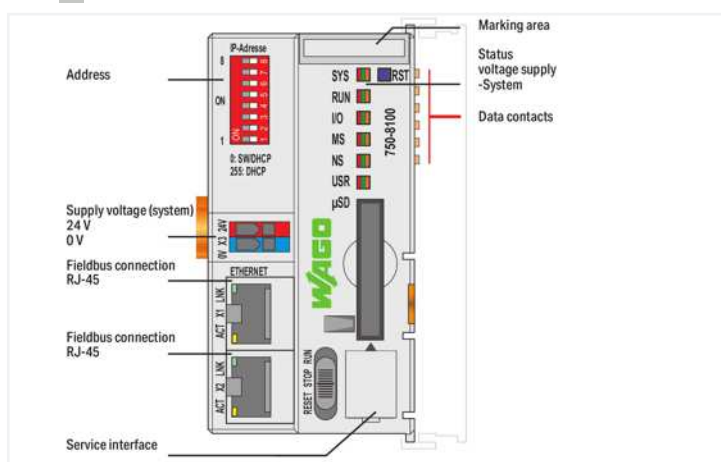


Color:  light gray



The PFC100 Controller is a compact PLC for the modular WAGO I/O System. Besides network and fieldbus interfaces, the controller supports all digital, analog and specialty I/O modules found within the 750/753 Series.

Two ETHERNET interfaces and an integrated switch enable line topology wiring.

An integrated Webserver provides user configuration options, while displaying PFC100 status information.

Besides the processing industry and building automation, typical applications for the PFC100 include standard machinery and equipment control (e.g., packaging, bottling and manufacturing systems, as well as textile, metal and wood processing machines).

The DIP switch configures the last byte of the IP address and may be used for IP address assignment.

Programming per IEC 61131-3

- Programmable via **e!COCKPIT**
- Direct connection of WAGO's I/O modules
- 2 x ETHERNET (configurable)
- Linux 3.18 operating system with RT-Preempt patch
- Configuration via **e!COCKPIT** or Web-Based Management interface
- Maintenance-free

### Technical data

|                    |   |
|--------------------|---|
| Communication      | Modbus (TCP, UDP)<br>ETHERNET<br>EtherNet/IP™ Adapter (slave), library for <b>e!RUNTIME</b><br>MQTT |
| ETHERNET protocols | DHCP<br>DNS<br>NTP<br>FTP<br>FTPS<br>SNMP<br>HTTP<br>HTTPS<br>SSH                                   |
| Visualization      | Web-Visu  |
| Operating system   | Real-time Linux 3.18 (with RT-Preempt patch)  |

## Technical data

|  |  |
|--|--|
| CPU  | Cortex A8; 600 MHz   |
| 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                          | <b>e!COCKPIT</b> (based on CODESYS V3)   |
| Configuration options                            | <b>e!COCKPIT</b><br>WAGO-I/O-CHECK<br>Web-Based Management   |
| Baud rate (communication/fieldbus 1)             | 10/100 Mbit/s  |
| Baud 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)                                | 256 MB   |
| Internal memory (flash)                          | 256 MB   |
| Non-volatile hardware memory                     | 64 KB  |
| Program memory                                   | 10 MB (Program and data memory (dynamically distributed))  |
| Data memory                                      | 10 MB Program and data memory (dynamically distributed)  |
| Non-volatile software memory                     | 64 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; cover lid (sealable)  |
| Number of modules per node (max.)                | 250  |
| Number of modules without a bus extension (max.) | 64   |
| Input and output process image (internal) max.   | 1000 words/1000 words  |
| Input and output process image (Modbus®) max.    | CODESYS V3: 32000 words/32000 words  |
| Indicators                                       | LED (SYS, RUN, I/O, USR) red/green/orange: Status system, program, local data bus, status programmable by user (can be used via CODESYS library)                           |
| Supply voltage (system)                          | 24 VDC (-25 ... +30 %); via pluggable connector  |
| Input current (typ.) at nominal load (24 V)      | 300 mA   |
| Total current (system supply)                    | 700 mA   |
| Isolation  | 500 V system/field   |

## Connection data

|   |  |
|---|--|
| Connection technology: communication/fieldbus | Modbus (TCP, UDP): 2 x RJ-45                 |
| Connection technology: system supply          | 2 x CAGE CLAMP®                              |
| Connection type 1                             | System supply                                |
| Solid conductor                               | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Fine-stranded conductor                       | 0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Strip length                                  | 5 ... 6 mm / 0.2 ... 0.24 inches             |
| Connection technology: device configuration   | 1 x Male connector; 4-pole                   |

## Physical data

|                                   |                        |
|-----------------------------------|------------------------|
| Width                             | 49.5 mm / 1.949 inches |
| Height                            | 96.8 mm / 3.811 inches |
| Depth                             | 71.9 mm / 2.831 inches |
| Depth from upper-edge of DIN-rail | 64.7 mm / 2.547 inches |

### Mechanical Data

|                    |                              |
|--------------------|------------------------------|
| Weight             | 112 g                        |
| Color              | light gray                   |
| Housing material   | Polycarbonate; polyamide 6.6 |
| Conformity marking | CE                           |

### Environmental requirements

|  |   |
|--|---|
| Ambient 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   | 4g per IEC 60068-2-6  |
| Shock resistance   | 15g per IEC 60068-2-27  |
| EMC immunity to interference   | per EN 61000-6-2, marine applications   |
| EMC emission of interference   | per EN 61000-6-3, marine applications   |
| Exposure to pollutants   | per IEC 60068-2-42 and IEC 60068-2-43   |
| Fire load  | 1.445 MJ  |
| Permissible H <sub>2</sub> S contaminant concentration at a relative humidity 75 % | 10 ppm  |
| Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75 %  | 25 ppm  |

### Commercial data

|                       |               |
|-----------------------|---------------|
| 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                  | 4055143351805 |
| Customs tariff number | 8537109190    |

### Approvals / Certificates

#### General approvals



| Approval  | Standard               | Certificate Name                |
|---|------------------------|---------------------------------|
| EAC<br>Brjansker Zertifizierungs-<br>stelle                       | TP TC 020/2011         | EAC RU C-DE.AM02.<br>B.00087/19 |
| KC<br>National Radio Research<br>Agency                           | Article 58-2, Clause 3 | MSIP-REM-W43-PFC750             |
| UL<br>Underwriters Laboratories<br>Inc. (ORDINARY LOCATI-<br>ONS) | UL 508                 | E175199 Sec.1                   |

#### Approvals for marine applications



| Approval  | Standard                           | Certificate Name |
|---|------------------------------------|------------------|
| ABS<br>American Bureau of Ship-<br>ping                         | -                                  | 22-2219060       |
| BSH<br>Bundesamt fuer See-<br>schifffahrt und Hydrogra-<br>phie | -                                  | 1104             |
| BV<br>Bureau Veritas S.A.                                       | Rules for class. of Steel<br>Ships | 66711/A0         |
| DNV<br>DNV Germany GmbH   | DNV-CG-0339, Aug. 2021             | TAA0000194       |

**Approvals for marine applications**

|                                   |   |                   |
|-----------------------------------|---|-------------------|
| KR<br>Korean Register of Shipping | - | KR HMB05880-AC001 |
| LR<br>Lloyds Register EMEA        | - | LR22180952TA      |
| PRS<br>Polski Rejestr Statków     | - | TE/2236/880590/19 |
| RINA<br>RINA Germany GmbH         | - | ELE343521XG001    |

**Approvals for hazardous areas**



| Approval   | Standard       | Certificate Name                                 |
|--|----------------|--|
| ATEX<br>TUEV Nord Cert GmbH                                | EN 60079-0     |  |
| CCC<br>CNEX  | CNCA-C23-01    | 2020312310000213 (Ex ec IIC T4 Gc)               |
| EAC<br>Brjansker Zertifizierungsstelle                     | TP TC 012/2011 | EAC RU C-DE.AM02. B.00163/19 (2Ex e IIC T4 Gc X) |
| IECEX<br>TUEV Nord Cert GmbH                               | IEC 60079-0    | IECEX_TUN_14.0035_X (Ex ec IIC T4 Gc)            |
| INMETRO<br>TUV Rheinland do Brasil Ltda.                   | IEC 60079-0    | BR-Ex_TUV 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 Sec.1                                    |

**Downloads**

**Environmental Product Compliance**

|   |
|---|
| Compliance Search   |
| Environmental Product Compliance 750-8100 <a href="#">↓</a> |

**Documentation**

| Manual                                |                       |                   |                   |
|---------------------------------------|-----------------------|-------------------|-------------------|
| System Manual WAGO I/O System 750/753 | V 3.1.0<br>05.12.2022 | pdf<br>8495.90 KB | <a href="#">↓</a> |
| System Manual Series 750/753          |                       |                   | <a href="#">↓</a> |
| PFC100 CS 2ETH ECO                    | 1.12.0<br>29.08.2022  | pdf<br>4848.33 KB | <a href="#">↓</a> |

| System Description                        |                  |                   |
|---|------------------|-------------------|
| Overview on WAGO-I/O-SYSTEM 750 approvals | pdf<br>770.48 KB | <a href="#">↓</a> |

| Tutorial                                       |                   |                    |                   |
|--|-------------------|--------------------|-------------------|
| Establish connection to a controller using SSH | 1.0<br>05.08.2017 | mp4<br>28368.02 KB | <a href="#">↓</a> |
| Set IP address with Ethernet Settings          | 3.0<br>18.12.2017 | mp4<br>86272.82 KB | <a href="#">↓</a> |

| Additional Information                              |                       |                   |                   |
|---|-----------------------|-------------------|-------------------|
| WAGO OPC UA Server                                  | V 1.1.0<br>28.01.2021 | pdf<br>1132.87 KB | <a href="#">↓</a> |
| External license agreement for open source software | V 1.0.0               | pdf<br>1482.55 KB | <a href="#">↓</a> |

| Bid Text                    |            |                 |                   |
|-----------------------------|------------|-----------------|-------------------|
| 750-8100                    | 19.02.2019 | xml<br>7.07 KB  | <a href="#">↓</a> |
| 750-8100                    | 06.01.2016 | doc<br>34.00 KB | <a href="#">↓</a> |
| ausschreiben.de<br>750-8100 |            |                 | <a href="#">↓</a> |

## Application Notes

| Application Note CoDeSys 2.3           |                          |                   |                   | Application Note e!COCKPIT                 |                          |                   |                   |
|--|--------------------------|-------------------|-------------------|--|--------------------------|-------------------|-------------------|
| Application note Cloud<br>Connectivity | 2019-09-17<br>17.09.2019 | zip<br>3973.74 KB | <a href="#">↓</a> | e!COCKPIT application<br>note WagoAppCloud | 2022-11-04<br>04.11.2022 | zip<br>2678.52 KB | <a href="#">↓</a> |

## CAD/CAE-Data

| CAD data                 |                   | CAE data                      |                   |
|--------------------------|-------------------|-------------------------------|-------------------|
| 2D/3D Models<br>750-8100 | <a href="#">↓</a> | EPLAN Data Portal<br>750-8100 | <a href="#">↓</a> |
|                          |                   | WSCAD Universe<br>750-8100    | <a href="#">↓</a> |
|                          |                   | ZUKEN Portal<br>750-8100      | <a href="#">↓</a> |

## Engineering-Software

| Configuration and Commissioning Software |                        |                    |                   |
|--|------------------------|--------------------|-------------------|
| WAGOupload                               | 1.16.0.0<br>02.02.2022 | zip<br>11121.72 KB | <a href="#">↓</a> |

## Runtime Software

| Firmware                              |                        |                     |                   |
|---------------------------------------|------------------------|---------------------|-------------------|
| Image Update (SD Karte)<br>PFC100/200 | V 22 SP1<br>12.12.2022 | zip<br>205165.20 KB | <a href="#">↓</a> |

## Libraries

| Library                          |                     |                 |                   |
|----------------------------------|---------------------|-----------------|-------------------|
| Library WagoLib-<br>Cloud_02.lib | 2.2.4<br>21.01.2020 | zip<br>56.21 KB | <a href="#">↓</a> |

## 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

1.1.2 Communication

1.1.2.1 Bluetooth



**Item No.: 750-921**  
Bluetooth® Adapter

1.1.2.2 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.: 210-508**  
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

1.1.4 Marking

1.1.4.1 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

**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

**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

1.1.5 Memory card

1.1.5.1 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

1.1.6 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

1.1.7 Software

1.1.7.1 Basic version



**Item No.: 2759-101/1110-4000**  
e!COCKPIT; Buy-out License

**Item No.: 2759-101/1110-2005**  
e!COCKPIT; Multi-User License; 05 pcs

**Item No.: 2759-101/1110-2010**  
e!COCKPIT; Multi-User License; 10 pcs

**Item No.: 2759-101/1110-2015**  
e!COCKPIT; Multi-User License; 15 pcs



**Item No.: 2759-101/1110-2020**  
e!COCKPIT; Multi-User License; 20 pcs

**Item No.: 2759-101/1110-3000**  
e!COCKPIT; Site License

**Item No.: 2759-101/1110-2002**  
e!COCKPIT; Workstation License

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); Wx-  
HxD (164x100x164 mm); 9 x M12, 4 x M20



**Item No.: 850-835**  
IP65 enclosure; Polyester (RAL 7032); Wx-  
HxD (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 flan-  
ge plate

**Item No.: 850-815/002-000**  
IP65 enclosure; Sheet steel (RAL 7035);  
WxHxD (300x120x200 mm); without flan-  
ge plate



**Item No.: 850-816/002-000**  
IP65 enclosure; Sheet steel (RAL 7035);  
WxHxD (400x120x200 mm); without flan-  
ge plate

**Item No.: 850-817/002-000**  
IP65 enclosure; Sheet steel (RAL 7035);  
WxHxD (600x120x200 mm); without flan-  
ge plate