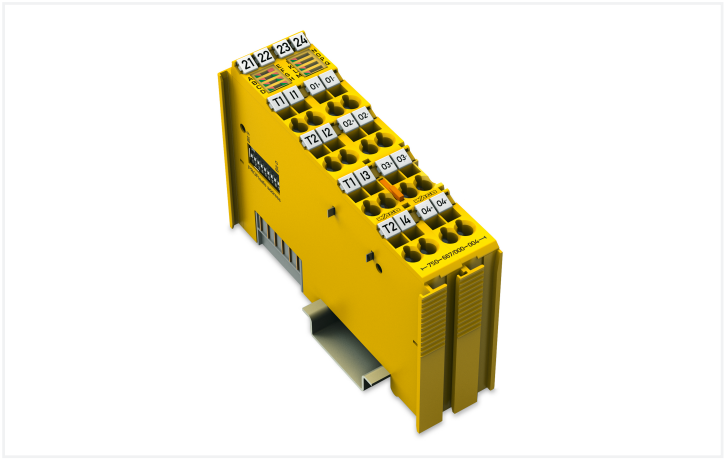
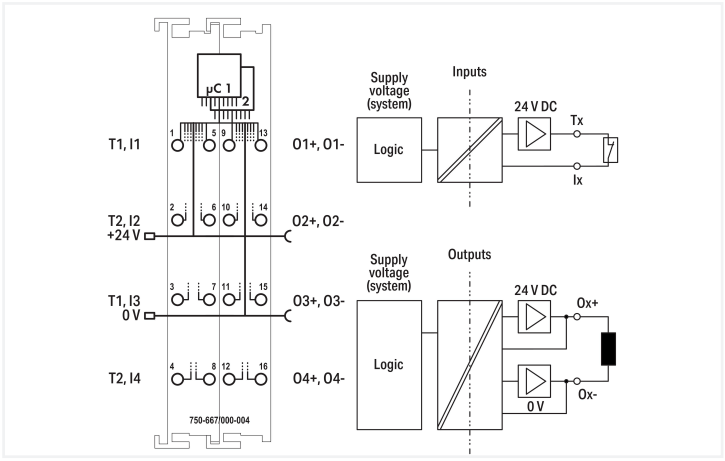
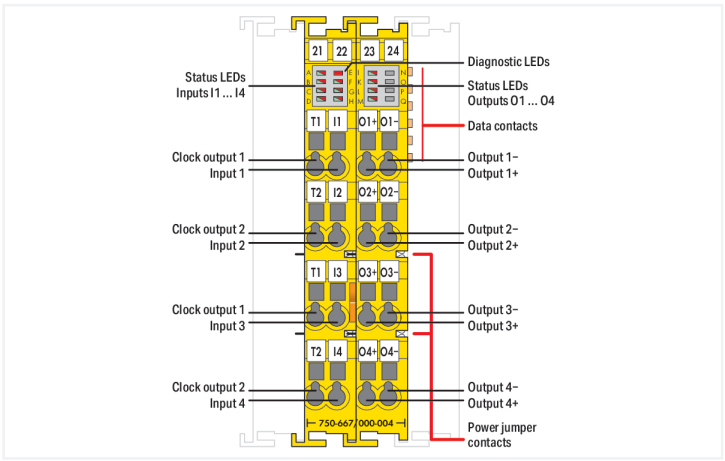
# Data Sheet | Item Number: 750-667/000-004

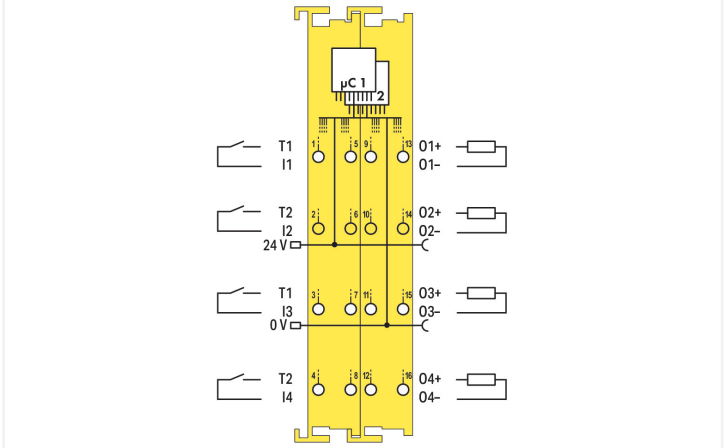
Fail-safe 4/4 channel digital input/output; 24 VDC; 2 A; PROFIsafe

https://www.wago.com/750-667/000-004






The 75x-667/000-004 Module is equipped with four power outputs (O1 ... O4) and four clock sensitive inputs (I1 ... I4). The sensors can be powered either directly via 24 VDC or via the two pulse-timed outputs (T1 ... T2). The inputs connect potential-free, emergency-off switches with contacts, safety interlock switches, mode selectors, as well as both safety sensors and semiconductor outputs (e.g., light barriers, PLC outputs). The power outputs switch both DC13 resistive and inductive loads with up to a 2A-rated current without requiring any additional external circuit.
The power outputs operate in both bipolar (high-side/low-side switching) and unipolar (common potential on one side of the load) modes.
The module monitors short circuits, cross circuits and 24 V power supply from separate sources. Monitoring and other safety-relevant parameters – such as operating modes, disabling of test pulses, discrepancy times, or filter times – can be configured via WAGO-I/O-*CHECK*.
The configuration tool can be conveniently integrated into engineering systems supporting both CC2 and CC3 tool calling interfaces (TCI).
When exchanging modules, parameters are automatically downloaded into the control unit via PROFIsafe-compatible iPar server – depending on settings. The PROFIsafe address can be set using the DIP switch located on the side of the module, or via WAGO-I/O-*CHECK*.
The module supports PROFIsafe protocols V2.4 (PROFIBUS, PROFINET) and V2.6 (PROFINET).
Field and system levels are electrically isolated.
Individual safety modules can be arranged in any combination when configuring the fieldbus node.
To protect the 24 VDC power supply against surge and burst (to IEC 61000-6-7 and for marine applications), a WAGO filter module or a suitable external interference suppression filter must be used. Additional information can be found in the product manual (available in German and English).
The 75x-667/000-004 Module was evaluated by UL to UL/CSA 61010-1, UL/CSA 61010-2-201, UL 121201, and CSA-C22.2 No. 213.
The functional safety assessment to the specified standards was conducted by TÜV Rheinland.
Additional information and examples can be found in the WAGO Download Center (link: Learning Material | WAGO Download Center).

| General technical data | |
|---|---|
| Protocols | PROFIsafe V2.6 (PROFINET) and V2.4 (PROFIBUS, PROFINET) |
| Configuration options | PROFIsafe address adjustable via DIP switch or engineering software |
| Indicators | LED (A-D) green/red: Status/Error I1 … I4; LED (I-M) green/red: Status/error O1 … O4; LED (E) red: Group error; LED (F-H) green/red: Diagnostics |
| Total number of channels (module) | 8 |
| Pluggable connector | fixed |

| Digital Inputs | |
|---|---|
| Number of digital inputs | 4 |
| Signal type | Digital |
| Signal type (voltage) | 24 VDC |
| Sensor connection | 4 x (Fail-safe input with test pulse) |
| Input characteristic | clock sensitive |
| Input characteristic | Type 1 per IEC 61131 |
| Input current per channel for signal (1) typ. | 3 mA |
| Signal frequency (max.) | 50 Hz |

| Digital Clock Outputs | |
|---|---|
| Signal type | Digital |
| Signal type (voltage) | 24 VDC |
| Output current per channel | 2 A |

| Digital outputs | |
|---|---|
| Number of digital outputs | 4 |
| Signal type | Digital |
| Signal type (voltage) | 24 VDC |
| Output current | short-circuit-protected |
| Output current (module) | 8 A |
| Actuator connection | 4 x (fail-safe output with test pulse) |
| Output circuit design | Power outputs |
| Switching frequency (max.) | 50 Hz; Resistive load |
| Switching frequency (max.) (2) | 0.1 Hz; Inductive load |
| Switching frequency (max.) (3) | 0.1 Hz; Capacitive load |
| Capacitive load for each channel | O1 … O4; 47 µ F |

| Technical data | |
|---|---|
| Supply voltage (system) | 5 VDC; via data contacts |
| Current consumption (system supply) | 120 mA |
| Supply voltage (field) | 24 VDC, SELV/PELV (-25 … +20 %); via power jumper contacts (power supply via blade contact; transmission (field side supply voltage only) via spring contact) |
| Current consumption, field supply (module with no external load) | 35 mA |
| Number of incoming power jumper contacts | 2 |
| Number of outgoing power jumper contacts | 2 |
| Current carrying capacity (power jumper contacts) | 10 A |


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## Functional Safety

| | |
|---|---|
| Achievable safety classes | SIL 3; Category 4, PLe (two-channel); SIL 2; Category 2; PLd (one-channel) |
| Safety standards | IEC 61508-1 ... -7; EN ISO 13849-1; EN 62061 |
| Interface types according to ZVEI (inputs) | Drain; A, C0, C1, C2, C3 |
| Interface types per ZVEI CB24I (outputs) | Source; C0, C1, C2, C3, D0, D1, D2, D3 |
| Test pulse duration (max.) | 500 ms |
| Test pulse duration (min.) | 0 ms |

## Connection Data

| | |
|---|---|
| Connection technology: I/O | 16 x CAGE CLAMP® |
| Connectable conductor materials | Copper |
| Connection type | Inputs/outputs |
| 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 |

## Physical data

| | |
|---|---|
| Width | 24 mm / 0.945 inches |
| Height | 100 mm / 3.937 inches |
| Depth | 67.8 mm / 2.669 inches |
| Depth from upper-edge of DIN-rail | 60.6 mm / 2.386 inches |

## Mechanical data

| | |
|---|---|
| Mounting type | DIN-35 rail |
| Pluggable connector | fixed |

## Material data

| | |
|---|---|
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 1.621 MJ |
| Weight | 101.6 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 | 0 … 2000 m / 0 … 6562 ft |
| Mounting position | Horizontal left, horizontal right, horizontal top, 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, marine applications, EN 61000-6-7 (FS) |
| EMC emission of interference | per EN 61000-6-3, -4; marine applications |
| 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 | 4066966334104 |
| Customs tariff number | 85371098990 |

## Product Classification

| | |
|---|---|
| UNSPSC | 32151705 |
| ETIM 9.0 | EC001599 |
| ETIM 10.0 | EC001599 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| CAS-No. | 1303-86-2<br>1317-36-8<br>693-98-1<br>7439-92-1<br>80-05-7 |
| REACH Candidate List Substance | 2-methylimidazole<br>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 |
| SCIP notification number (Austria) | 4db6bc65-63d4-44ef-8cd8-0e9ecf681074 |
| SCIP notification number (Belgium) | 09cd3330-499e-45b1-bcc7-6d0e2a20f64c |
| SCIP notification number (Bulgaria) | 05dd7f16-16c1-4bfa-9e94-6262c9647c25 |
| SCIP notification number (Czech Republic) | 35597d1a-dbe3-4862-8063-ab2377704ee0 |
| SCIP notification number (Denmark) | 0eec3c01-1808-451b-88b3-e768e43c849f |
| SCIP notification number (Finland) | 464b427c-c909-4b40-9432-28e2c00b6333 |
| SCIP notification number (France) | c5b9753c-8395-41d0-9cf1-3d610eefafe6 |
| SCIP notification number (Germany) | 98a0512a-5d6c-4392-b306-6d467ca76a23 |
| SCIP notification number (Hungary) | 66bec445-4c5d-417c-bb7e-669ea9f637c5 |
| SCIP notification number (Italy) | 9238d086-d6a5-4af6-a9de-09c694614ba8 |
| SCIP notification number (Netherlands) | a896c4dc-bcc2-420f-904f-4af480986984 |
| SCIP notification number (Poland) | a1fbcb86-3b42-4603-8d69-5968265334d5 |
| SCIP notification number (Romania) | c219bed9-2bb5-494d-b6c0-761ecbab9c48 |
| SCIP notification number (Sweden) | 90ab6f2e-0827-4cb3-9ced-f2d0a76f9008 |

## Approvals / Certificates

### General approvals

| Approval | Standard | Certificate Name |
|---|---|---|
| EAC<br>GZO Almaty Standart | TP TC 020/2011 | EAC CoC 03083 |
| UL<br>Underwriters Laboratories Inc. (ORDINARY LOCATIONS) | - | E175199 |

### Declarations of conformity and manufacturer's declarations

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


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## Approvals for marine applications

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

## Approvals for hazardous areas

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

## Approvals for functional safety

| Approval | Standard | Certificate Name |
|---|---|---|
| Prod. Safety, Funct. Safety<br>TUEV Rheinland Industrie Service GmbH | - | No. 968/EZ 247.24/25 |
| Profi-Safe<br>Siemens AG/ComDeC | - | Z20294 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance 750-667/000-004

### Documentation

**Manual**

| | | | |
|---|---|---|---|
| Product Manual 4FDI/4FDO 24V/2A PROFIsafe | V 1.1.0<br>13.02.2023 | pdf<br>5163.66 KB | |

**System Description**

| | | |
|---|---|---|
| 750/753 Series I/O-System – General Product Information | pdf<br>953.35 KB | |
| Overview on WAGO-I/O-SYSTEM 750 approvals | pdf<br>770.48 KB | |
| Functional Safety – General Product Information | pdf<br>217.82 KB | |


Continued on next page

### Bid Text

| | | |
|---|---|---|
| 0750-0667/0000-0004 | docx<br>35.46 KB | |
| 0750-0667/0000-0004 | xml<br>11.17 KB | |

### Instruction Leaflet

| | | | |
|---|---|---|---|
| Operating and assembly instructions | V 1.3.0<br>12.04.2023 | pdf<br>792.49 KB | |

## Application Notes

### Application note SIEMENS

| | | | |
|---|---|---|---|
| Using iPar-Server option with WAGO PROFIsafe modules (a114802) | V 14.1<br>07.02.2023 | zip<br>130043.55 KB | |

## CAD/CAE-Data

### CAD data

| | | | |
|---|---|---|---|
| 2D/3D Models 750-667/000-004 | | | |

## Engineering-Software

### Configuration and Commissioning Software

| | | | |
|---|---|---|---|
| Safety Editor (SEDI) / 750-66x | 3.5.1.0<br>25.01.2024 | zip<br>19060.65 KB | |

## Runtime Software

### Firmware

| | | | |
|---|---|---|---|
| 0750-0667/0000-0004, Sicherer Digitalein-/-ausgang | V 02<br>20.01.2023 | zip<br>1030.17 KB | |

## System Software

| | | | |
|---|---|---|---|
| F-Address Confirmation Tool | | | |


Continued on next page

# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 DIN-rail

#### 1.1.1.1 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

### 1.1.2 Marking

#### 1.1.2.1 Group marker carrier



Item No.: 750-107
Group marker carrier

#### 1.1.2.2 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


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### 1.1.2.3 Marker carrier



Item No.: 750-103
Group marker carrier

### 1.1.3 Shield termination

#### 1.1.3.1 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

### 1.1.4 Supply module

#### 1.1.4.1 Supply module



Item No.: 750-612
Power Supply; 0 … 230 V AC/DC



Item No.: 750-602
Power Supply; 24 VDC



Item No.: 750-601
Power Supply; 24 VDC; fuse holder



Item No.: 750-610
Power Supply; 24 VDC; fuse holder; Diagnostics

### 1.1.5 System enclosure

#### 1.1.5.1 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



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