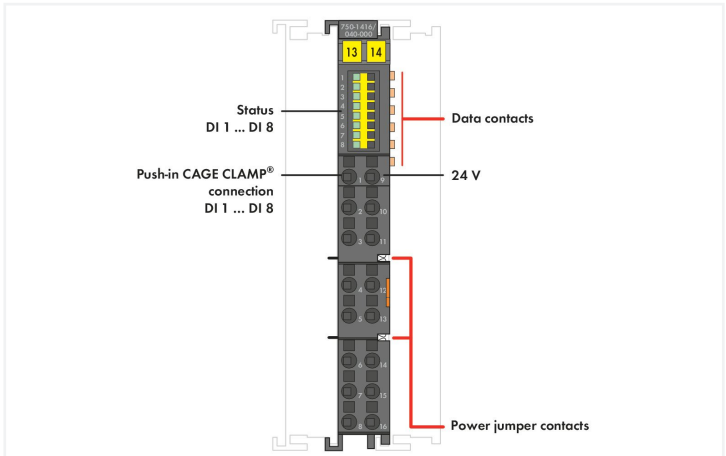
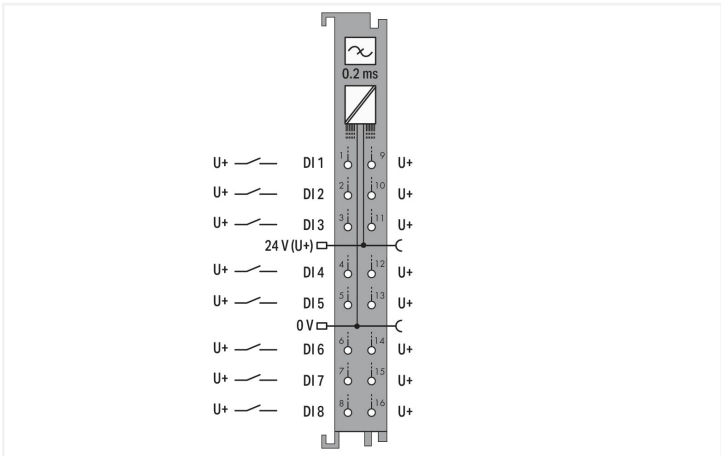
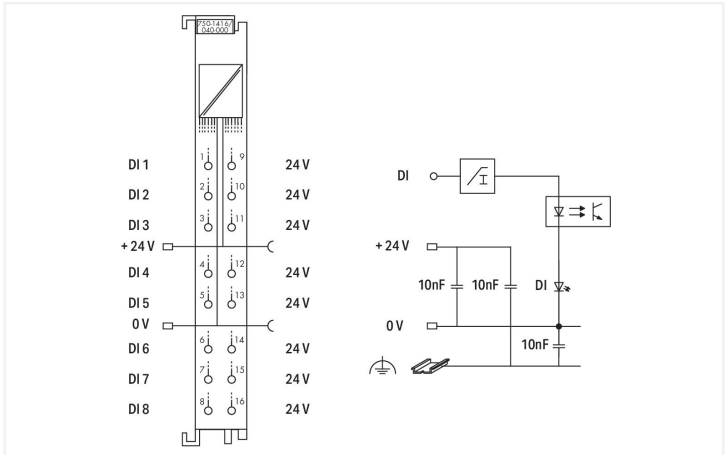




Color: ■ dark gray



This digital input module is a 2-wire device featuring eight channels in a width of just 12 mm (0.47 inch). It receives binary control signals from digital field devices (e.g., sensors, encoders, switches or proximity sensors). The module features Push-in CAGE CLAMP® connections enabling solid conductors to be connected by simply pushing them in. Each input channel has a noise-rejection RC filter with 0.2 ms time constant. A green LED indicates the signal state of each channel. Field and system levels are electrically isolated. An operating tool with a 2.5 mm blade (210-719) is required to open the Push-in CAGE CLAMP® connections.

- The device is ideal for operation in extreme environments thanks to:**
- An extended temperature range
  - Greater immunity to impulse voltages and electromagnetic interference
  - Higher vibration and shock resistance

| Technical data                                |                               |
|-----------------------------------------------|-------------------------------|
| Number of digital inputs                      | 8                             |
| Total number of channels (module)             | 8                             |
| Signal type                                   | Digital                       |
| Signal type (voltage)                         | 24 VDC                        |
| Sensor supply                                 | DC 24 V                       |
| Sensor connection                             | 8 x (2-wire)                  |
| Input characteristic                          | high-side switching<br>Type 3 |
| Input filter (digital)                        | 0.2 ms                        |
| Input current per channel for signal (0) typ. | 1.6 mA                        |
| Input current per channel for signal (1) typ. | 4.5 mA                        |
| Input current per channel for signal (1) min. | 4.3 mA                        |
| Input current per channel for signal (1) max. | 4.6 mA                        |



| Technical data                                                   |                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage range for signal (0)                                     | -3 ... +5 VDC                                                                                                                                                                                                                                                               |
| Voltage range for signal (1)                                     | 11 ... 30 VDC                                                                                                                                                                                                                                                               |
| Input data width (internal) max.                                 | 8 bits                                                                                                                                                                                                                                                                      |
| Supply voltage (system)                                          | 5 VDC; via data contacts                                                                                                                                                                                                                                                    |
| Current consumption (5 V system supply)                          | 6 mA                                                                                                                                                                                                                                                                        |
| Supply voltage (field)                                           | 24 VDC (-25 ... +30 %); via power jumper contacts (power supply via blade contact; transmission via spring contact); Derating must be observed!                                                                                                                             |
| Current consumption, field supply (module with no external load) | 2 mA                                                                                                                                                                                                                                                                        |
| Dielectric strength                                              | 510°VAC / 775°VDC; per EN°60870-2-1                                                                                                                                                                                                                                         |
| Rated surge voltage                                              | 1 kV                                                                                                                                                                                                                                                                        |
| Indicators                                                       | LED (1-8) green: Status DI 1 ... DI 8                                                                                                                                                                                                                                       |
| Number of incoming power jumper contacts                         | 2                                                                                                                                                                                                                                                                           |
| Number of outgoing power jumper contacts                         | 2                                                                                                                                                                                                                                                                           |
| Current carrying capacity (power jumper contacts)                | 10 A                                                                                                                                                                                                                                                                        |
| Derating                                                         | Derating (supply voltage):<br>Ambient temperatures under laboratory conditions: (-25 ... +30°%);<br>for -40 ... +55°C: 24°V (-25 ... +20°%);<br>for +55 ... +70°C: 24°V (-25 ... +10°%);<br>Lower limit in all temperature ranges: -27.5°% (including 15°% residual ripple) |

| Connection data                       |                                   |
|---------------------------------------|-----------------------------------|
| Connection technology: inputs/outputs | 16 x Push-in CAGE CLAMP® (inputs) |
| Connection type 1                     | Input                             |
| Solid conductor                       | 0.25 ... 1.5 mm² / 24 ... 16 AWG  |
| Fine-stranded conductor               | 0.25 ... 1.5 mm² / 24 ... 16 AWG  |
| Strip length                          | 8 ... 9 mm / 0.31 ... 0.35 inches |

| Physical data                     |                        |
|-----------------------------------|------------------------|
| Width                             | 12 mm / 0.472 inches   |
| Height                            | 100 mm / 3.937 inches  |
| Depth                             | 69 mm / 2.717 inches   |
| Depth from upper-edge of DIN-rail | 61.8 mm / 2.433 inches |

| Mechanical data |             |
|-----------------|-------------|
| Mounting type   | DIN-35 rail |

| Material data      |                              |
|--------------------|------------------------------|
| Color              | dark gray                    |
| Housing material   | Polycarbonate; polyamide 6.6 |
| Fire load          | 0.835 MJ                     |
| Weight             | 47 g                         |
| Conformity marking | CE                           |



| Environmental requirements                                                         |                                                                                                                                                                  |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient temperature (operation)                                                    | -40 ... +70 °C                                                                                                                                                   |
| Ambient temperature (storage)                                                      | -40 ... +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 (standing/lying); vertical                                                                                                                            |
| Relative humidity (without condensation)                                           | 95 %                                                                                                                                                             |
| Relative humidity (with condensation)                                              | Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation)                     |
| Vibration resistance                                                               | per IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3, EN 50155; EN 61373                                                                        |
| Shock resistance                                                                   | per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 50155, EN 61373                                                                 |
| EMC immunity to interference                                                       | per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; EN 60255-26; EN 60870-2-1; EN 61850-3; IEC 61000-6-5; IEEE 1613; VDEW: 1994 |
| EMC emission of interference                                                       | per EN 61000-6-3, -4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, EN 50121-4, -5                                       |
| Exposure to pollutants                                                             | per IEC 60068-2-42 and IEC 60068-2-43                                                                                                                            |
| 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           | 27-24-26-04   |
| eCl@ss 9.0            | 27-24-26-04   |
| ETIM 8.0              | EC001599      |
| ETIM 7.0              | EC001599      |
| PU (SPU)              | 1 pcs         |
| Packaging type        | Box           |
| Country of origin     | DE            |
| GTIN                  | 4055143315654 |
| Customs tariff number | 85389099990   |

| Environmental Product Compliance          |                                                            |
|-------------------------------------------|------------------------------------------------------------|
| CAS-No.                                   | 7439-92-1                                                  |
| REACH Candidate List Substance            | Lead<br>Perfluorobutane sulfonic acid (PFBS) and its salts |
| RoHS Compliance Status                    | Compliant,With Exemption                                   |
| RoHS Exemption                            | 7(a)<br>7(c)-I                                             |
| SCIP notification number (Austria)        | 4cba2754-e865-43cd-a55a-c7323c78bcc0                       |
| SCIP notification number (Belgium)        | ffe4bd39-3466-4639-bd44-dafccf43797a                       |
| SCIP notification number (Bulgaria)       | 94ac0048-0423-482a-86ab-9519a1fd1d7a                       |
| SCIP notification number (Czech Republic) | 7940ce40-b940-417b-bbb2-d5016f30cc9f                       |
| SCIP notification number (Denmark)        | f9d0067d-c380-4fb1-ae3d-4d599058d5fe                       |
| SCIP notification number (Finland)        | 2ee3002d-6686-4b0a-aec0-9a16030e090b                       |
| SCIP notification number (France)         | dea8fe6e-1dec-4b61-96c8-b76c734351c6                       |
| SCIP notification number (Germany)        | 5d361c18-d09a-4cfd-80cc-466d187b65fb                       |
| SCIP notification number (Hungary)        | 80458268-517e-4089-8e49-861ebd36f5a9                       |
| SCIP notification number (Italy)          | 51415e5e-9ab6-49e2-8225-33f7a1318a75                       |
| SCIP notification number (Netherlands)    | 8019ae5e-4339-4a84-80a8-5900a32ae5db                       |
| SCIP notification number (Poland)         | b54735d1-543e-4922-b2ae-b5f9aca762aa                       |
| SCIP notification number (Romania)        | 8ae9546d-c41b-463d-b7b2-d7bb298cc4af                       |
| SCIP notification number (Sweden)         | cd35f0ee-efd3-4aa0-ad93-e3775a7538ad                       |



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-DIM750             |
| UL<br>UL International Nether-<br>lands B.V. (ORDINARY LO-<br>CATIONS) | UL 508                 | E175199 Sec.1                   |

Declarations of conformity and manufacturer's declarations

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

Approvals for marine applications



| Approval                                | Standard | Certificate Name  |
|-----------------------------------------|----------|-------------------|
| ABS<br>American Bureau of Ship-<br>ping | -        | 22-2208829-PDA    |
| DNV<br>DNV GL SE                        | -        | TAA00000Y7        |
| LR<br>Lloyds Register                   | -        | LR22276776TA      |
| PRS<br>Polski Rejestr Statków           | -        | TE/2215/880590/18 |

Approvals for hazardous areas



| Approval                                                           | Standard       | Certificate Name                                       |
|--------------------------------------------------------------------|----------------|--------------------------------------------------------|
| ATEX<br>TUEV Nord Cert GmbH                                        | EN 60079-0     | TUEV 17 ATEX 193969X (II<br>3 G Ex ec IIC T4 Gc)       |
| CCC<br>CNEX                                                        | CNCA-C23-01    | 2020312310000214 (Ex<br>ec IIC T4 Gc)                  |
| EAC<br>Brjansker Zertifizierungs-<br>stelle                        | TP TC 012/2011 | EAC RU C-DE.AM02.<br>B.00163/19 (2Ex e IIC T4<br>Gc X) |
| IECEx<br>TUEV Nord Cert GmbH                                       | IEC 60079-0    | IECEx TUN 16.0046X (Ex<br>ec IIC T4 Gc)                |
| UKEx<br>WAGO GmbH & Co. KG                                         | EN 60079-0     | UKCA_WA<br>GO22UKEX005X_ec                             |
| UL<br>Underwriters Laboratories<br>Inc. (HAZARDOUS LOCA-<br>TIONS) | UL 121201      | E198726 Sec.1                                          |

Downloads

Environmental Product Compliance

| Compliance Search                                       |
|---------------------------------------------------------|
| Environmental Product<br>Compliance<br>750-1416/040-000 |





| Documentation                               |                       |                   |                                                         |                                |                   |
|---------------------------------------------|-----------------------|-------------------|---------------------------------------------------------|--------------------------------|-------------------|
| Manual                                      |                       |                   | System Description                                      |                                |                   |
| Product Manual 8-channel, 24VDC, 0.2 ms/XTR | V 1.1.0<br>06.04.2020 | pdf<br>2580.23 KB | Overview on WAGO-I/O-SYSTEM 750 approvals               | pdf<br>770.48 KB               | <a href="#">↓</a> |
|                                             |                       |                   | 750 XTR Series I/O-System – General Product Information | pdf<br>726.09 KB               | <a href="#">↓</a> |
| Bid Text                                    |                       |                   | Instruction Leaflet                                     |                                |                   |
| 750-1416/040-000                            | 19.02.2019            | xml<br>6.95 KB    | CCC Ex (Additional information)                         | 26.04.2023<br>pdf<br>144.58 KB | <a href="#">↓</a> |
| 750-1416/040-000                            | 23.10.2015            | doc<br>33.50 KB   |                                                         |                                | <a href="#">↓</a> |

| CAD/CAE-Data                     |                                       |
|----------------------------------|---------------------------------------|
| CAD data                         | CAE data                              |
| 2D/3D Models<br>750-1416/040-000 | EPLAN Data Portal<br>750-1416/040-000 |
| <a href="#">↓</a>                | WSCAD Universe<br>750-1416/040-000    |
|                                  | ZUKEN Portal<br>750-1416/040-000      |

| 1 Compatible Products        |
|------------------------------|
| 1.1 Optional Accessories     |
| 1.1.1 DIN-rail               |
| 1.1.1.1 Mounting accessories |

|                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>Item No.: 210-196</b><br>Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored               | <br><b>Item No.: 210-198</b><br>Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored         | <br><b>Item No.: 210-508</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored | <br><b>Item No.: 210-197</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored                     |
| <br><b>Item No.: 210-506</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored       | <br><b>Item No.: 210-114</b><br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored            | <br><b>Item No.: 210-118</b><br>Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored         | <br><b>Item No.: 210-115</b><br>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 |
| <br><b>Item No.: 210-112</b><br>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 | <br><b>Item No.: 210-504</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored | <br><b>Item No.: 210-113</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored          | <br><b>Item No.: 210-505</b><br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; 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

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.: 750-612/040-000  
Power Supply; 0 ... 230 V AC/DC; Extreme

Item No.: 750-602/040-000  
Power Supply; 24 VDC; Extreme

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); 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

1.1.6 Tool

1.1.6.1 Operating tool



Item No.: 210-719  
Operating tool; Blade: 2.5 x 0.4 mm; with a  
partially insulated shaft