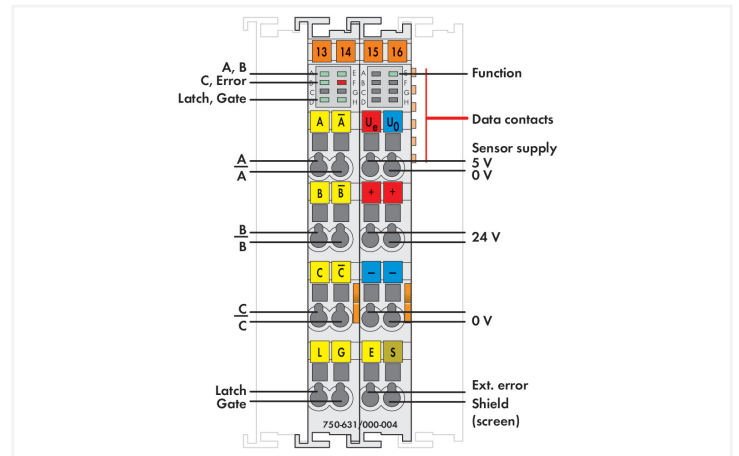
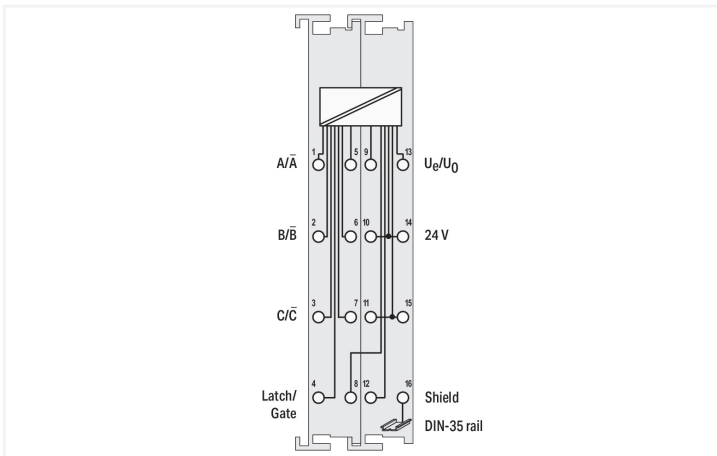
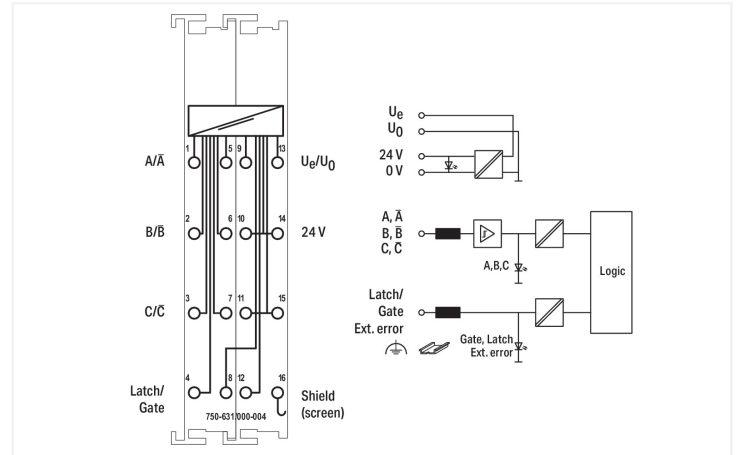




Color: ■ light gray



This module is an interface for the connection of any incremental encoder.

A 16 bit counter with quadrature encoder interface as well as a 16 bit latch for the zero impulse can be read, set, or enabled. The count of the counter will be transmitted fast and interference-free over the fieldbus to the PC, PLC, or NC.

A counter lock-out is possible using the "Gate" input.

The power supply for the transmitter is derived internally from the power jumper contacts Ue/U0.

The shield directly connects to the DIN-rail.

### Technical data

|  |   |
|--|---|
| Counter depth  | 16 bits   |
| Encoder connection   | A; /A; B; /B; C; /C (RS-422 inputs)   |
| Supply current (encoder) max.                                    | 200 mA  |
| Zero impulse (latch)   | 16 bits   |
| Quadrature decoder   | 4x evaluation   |
| Voltage range for signal (0)                                     | $U_{ABC} = 0\text{ V}$ , $U_{ABC/} = 5\text{ V}$ ; Latch, gate $\leq 5.0\text{ V}$ ; External error $U \geq 5.0\text{ V}$ or open input |
| Voltage range for signal (1)                                     | $U_{ABC} = 5\text{ V}$ , $U_{ABC/} = 0\text{ V}$ ; Latch, gate $\geq 15.0\text{ V}$ ; External error $U < 0.5\text{ V}$                 |
| Data width   | 2-byte output; 5-byte input; 2x 8-bit control/status (optional); 3 additional output bytes (reserved)                                   |
| Limit frequency  | 1000 kHz  |
| Commands   | Reading, setting, activating  |
| Supply voltage (system)  | 5 VDC; via data contacts  |
| Current consumption (5 V system supply)                          | 50 mA   |
| Current consumption, field supply (module with no external load) | 10 mA   |
| Isolation  | 500 V system/field  |
| Indicators   | LED (A, B, D, E/E, H) green: A, C, Latch, B/Function, Gate; LED (F) red: Error  |

### Connection data

|                                       |  |
|---------------------------------------|--|
| Connection technology: inputs/outputs | 16 x CAGE CLAMP®                             |
| Connectable conductor materials       | Copper                                       |
| Connection type                       | Inputs/outputs                               |
| Solid conductor                       | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Fine-stranded conductor               | 0.08 ... 2.5 mm <sup>2</sup> / 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                             | 69.8 mm / 2.748 inches |
| Depth from upper-edge of DIN-rail | 62.6 mm / 2.465 inches |

### Mechanical data

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

### Material data

|                    |                              |
|--------------------|------------------------------|
| Color              | light gray                   |
| Housing material   | Polycarbonate; polyamide 6.6 |
| Fire load          | 0.17 MJ                      |
| Weight             | 92.1 g                       |
| Conformity marking | CE                           |

### Environmental requirements

|  |  |
|--|--|
| Ambient temperature (operation)  | 0 ... +55 °C   |
| Ambient temperature (storage)  | -40 ... +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, horizontal bottom, vertical top and vertical bottom |
| Relative humidity (without condensation)   | 95 %   |
| Vibration resistance   | 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 61000-6-4   |
| 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

|                       |                 |
|-----------------------|-----------------|
| Product Group         | 15 (I/O System) |
| PU (SPU)              | 1 pcs           |
| Packaging type        | Box             |
| Country of origin     | DE              |
| GTIN                  | 4050821248309   |
| Customs tariff number | 85389099990     |

### Product classification

|             |                      |
|-------------|----------------------|
| UNSPSC      | 32151705             |
| eCl@ss 10.0 | 27-24-26-05          |
| eCl@ss 9.0  | 27-24-26-05          |
| ETIM 9.0    | EC001601             |
| ETIM 8.0    | EC001601             |
| ECCN        | NO US CLASSIFICATION |

### Environmental Product Compliance

|   |                                      |
|---|--------------------------------------|
| CAS-No.                                   | 7439-92-1                            |
| REACH Candidate List Substance            | Lead                                 |
| RoHS Compliance Status                    | Compliant, No Exemption              |
| SCIP notification number (Austria)        | fea078d9-b220-4917-9ca7-c9b9accf9dd3 |
| SCIP notification number (Belgium)        | 17dc706f-fe9b-4e4b-ab0e-8b22fb4f9ea2 |
| SCIP notification number (Bulgaria)       | 64c38c1f-4fd7-4414-ad0e-6e74eb6121f1 |
| SCIP notification number (Czech Republic) | eada6547-89f4-4ccf-9b07-cc7cc16a0b08 |
| SCIP notification number (Denmark)        | 087267d8-20d0-453e-b8d2-596f45ba29d8 |
| SCIP notification number (Finland)        | 15eadba7-ffb5-4b96-8d2f-210be8a44cdc |
| SCIP notification number (France)         | c1ce9943-649a-4b1b-8179-17484af159b4 |
| SCIP notification number (Germany)        | 31f84bca-52b4-4416-90f1-3532a29af73c |
| SCIP notification number (Hungary)        | 0e0cdbbe-545e-48c6-a9ad-44bbfd63edba |
| SCIP notification number (Italy)          | 7027983b-8361-4c3b-a904-db9dc7e7f052 |
| SCIP notification number (Netherlands)    | adb132a3-2cd8-43de-8d43-11bc1907ed04 |
| SCIP notification number (Poland)         | 950ab44a-e69d-4d76-9866-5b547434672e |
| SCIP notification number (Romania)        | 4c62a02f-b6bb-4a93-b3eb-2ee234bf2529 |
| SCIP notification number (Sweden)         | 87c40bd3-3991-4857-af75-24858f8077ea |

### 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<br>Agency                      | Article 58-2, Clause 3 | MSIP-REM-W43-DAM750 |
| UL<br>Underwriters Laboratories<br>Inc. (ORDINARY LOCATIONS) | UL 508                 | E175199             |

#### Declarations of conformity and manufacturer's declarations

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

Approvals for hazardous areas



| Approval  | Standard  | Certificate Name |
|---|-----------|------------------|
| UL<br>Underwriters Laboratories<br>Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726          |

Downloads

Environmental Product Compliance

| Compliance Search   |
|---|
| Environmental Product Compliance<br>750-631/000-004 <a href="#">↓</a> |

Documentation

| Manual                                       |         |                   |                   |
|--|---------|-------------------|-------------------|
| Product Manual Incremental encoder interface | V 1.2.0 | pdf<br>3192.23 KB | <a href="#">↓</a> |
| System Manual Series 750/753                 |         |                   | <a href="#">↓</a> |

| System Description                                      |                  |                   |
|---|------------------|-------------------|
| 750/753 Series I/O-System – General Product Information | pdf<br>953.35 KB | <a href="#">↓</a> |
| Overview on WAGO-I/O-SYSTEM 750 approvals               | pdf<br>770.48 KB | <a href="#">↓</a> |

| Bid Text        |            |                 |                   |
|-----------------|------------|-----------------|-------------------|
| 750-631/000-004 | 19.02.2019 | xml<br>4.93 KB  | <a href="#">↓</a> |
| 750-631/000-004 | 09.10.2017 | doc<br>26.50 KB | <a href="#">↓</a> |

Application Notes

| Application Note CoDeSys 2.3                             |                          |                   |                   |
|--|--------------------------|-------------------|-------------------|
| Anwendungshinweis für die Steuerung eines Icus robotlink | 12.11.2015<br>12.11.2015 | zip<br>1281.38 KB | <a href="#">↓</a> |

CAD/CAE-Data

| CAD data  |
|---|
| 2D/3D Models<br>750-631/000-004 <a href="#">↓</a> |

| CAE data   |
|--|
| EPLAN Data Portal<br>750-631/000-004 <a href="#">↓</a> |
| WSCAD Universe<br>750-631/000-004 <a href="#">↓</a>    |
| ZUKEN Portal<br>750-631/000-004 <a href="#">↓</a>      |

## Device Files

### Device Driver

|  |                       |                   |  |
|--|-----------------------|-------------------|--|
| WAGO USB Service Kabel Treiber / Serie 750 und 857 | 6.5.3.0<br>10.09.2014 | zip<br>4721.96 KB |  |
|--|-----------------------|-------------------|--|

## 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.: 210-508**

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

### 1.1.2 Marking

#### 1.1.2.1 Group marker carrier



**Item No.: 750-106**

Group marker carrier

#### 1.1.2.2 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

1.1.2.2 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

1.1.2.3 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 System enclosure

1.1.4.1 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

Subject to changes. Please also observe the further product documentation!

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Current addresses can be found at: [www.wago.com](http://www.wago.com)