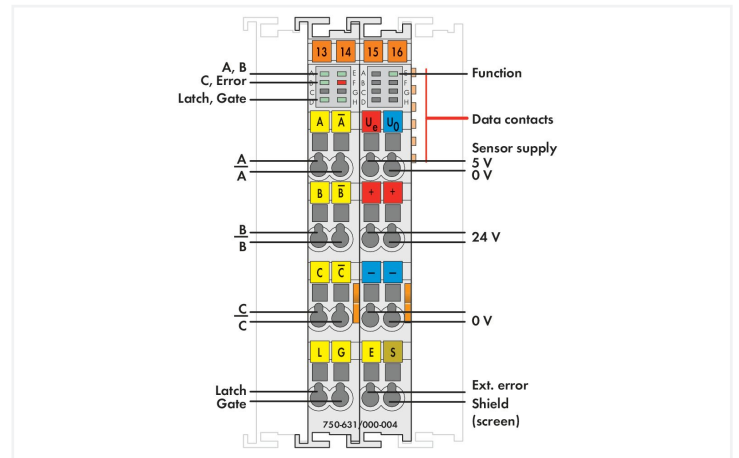
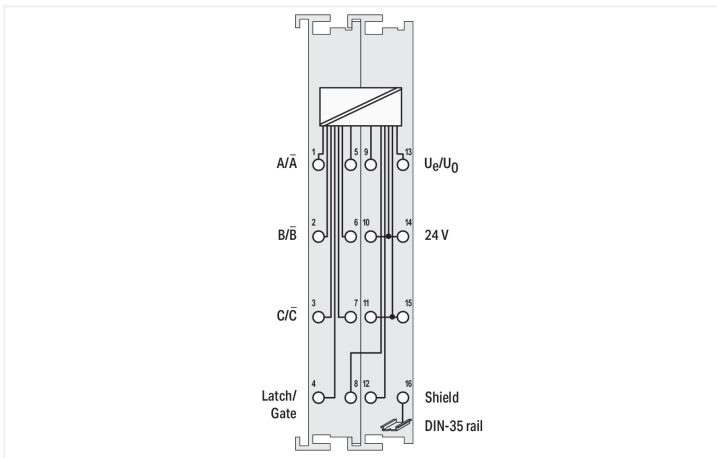
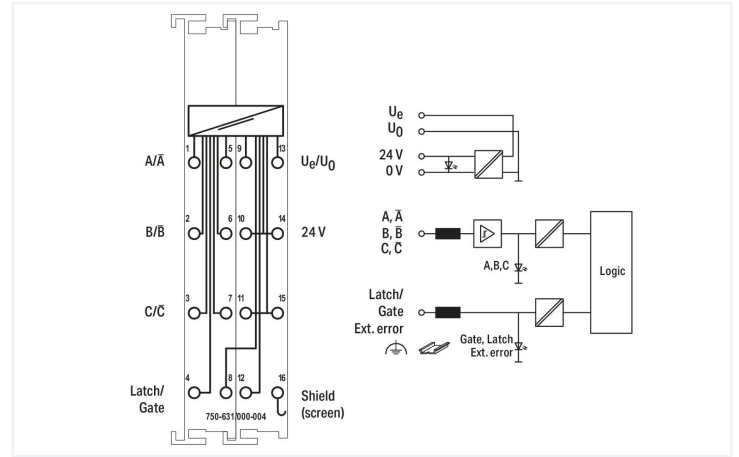




Color: ■ light gray



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® |
| Connection type 1 | Inputs/outputs |
| Solid conductor | 0.08 ... 2.5 mm ² / 28 ... 14 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 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 |
|---------------|-------------|

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 (standing/lying); vertical |
| 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 ₂ S contaminant concentration at a relative humidity 75 % | 10 ppm |
| Permissible SO ₂ contaminant concentration at a relative humidity 75 % | 25 ppm |

Commercial data

| | |
|-----------------------|-----------------|
| Product Group | 15 (I/O System) |
| eCl@ss 10.0 | 27-24-26-05 |
| eCl@ss 9.0 | 27-24-26-05 |
| ETIM 8.0 | EC001601 |
| ETIM 7.0 | EC001601 |
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4050821248309 |
| Customs tariff number | 85389099990 |

Environmental Product Compliance

| | |
|------------------------|-------------------------|
| RoHS Compliance Status | Compliant, No Exemption |
|------------------------|-------------------------|

Approvals / Certificates

General approvals **Declarations of conformity and manufacturer's declarations**



| Approval | Standard | Certificate Name |
|--|------------------------|---------------------|
| KC National Radio Research Agency | Article 58-2, Clause 3 | MSIP-REM-W43-DAM750 |
| UL UL International Netherlands B.V. (ORDINARY LOCATIONS) | UL 508 | E175199 Sec.1 |

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

Approvals for hazardous areas



| Approval | Standard | Certificate Name |
|--|-----------|------------------|
| UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 Sec.1 |

Downloads

Environmental Product Compliance

Compliance Search

| | |
|---|-------------------|
| Environmental Product Compliance 750-631/000-004 | ↓ |
|---|-------------------|

Documentation

| Manual | | | System Description | | |
|--|---------|-------------------|---|------------------|-------------------|
| Product Manual Incremental encoder interface | V 1.2.0 | pdf 3192.23 KB | 750/753 Series I/O-System – General Product Information | pdf 953.35 KB | ↓ |
| System Manual Series 750/753 | | ↓ | Overview on WAGO-I/O-SYSTEM 750 approvals | pdf 770.48 KB | ↓ |

| Bid Text | | | |
|-----------------|------------|-----------------|-------------------|
| 750-631/000-004 | 19.02.2019 | xml 4.93 KB | ↓ |
| 750-631/000-004 | 09.10.2017 | doc 26.50 KB | ↓ |

Application Notes

| Application Note CoDeSys 2.3 | | | |
|---|--------------------------|-------------------|-------------------|
| Anwendungshinweis für die Steuerung eines Iqgus robotlink | 12.11.2015 12.11.2015 | zip 1281.38 KB | ↓ |

CAD/CAE-Data

| CAD data | |
|---------------------------------|-------------------|
| 2D/3D Models 750-631/000-004 | ↓ |

| CAE data | |
|--------------------------------------|-------------------|
| EPLAN Data Portal 750-631/000-004 | ↓ |
| WSCAD Universe 750-631/000-004 | ↓ |
| ZUKEN Portal 750-631/000-004 | ↓ |

Device Files













| Device Driver | | | |
|--|-----------------------|-------------------|-------------------|
| WAGO USB Service Kabel Treiber / Serie 750 und 857 | 6.5.3.0 10.09.2014 | zip 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

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); 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