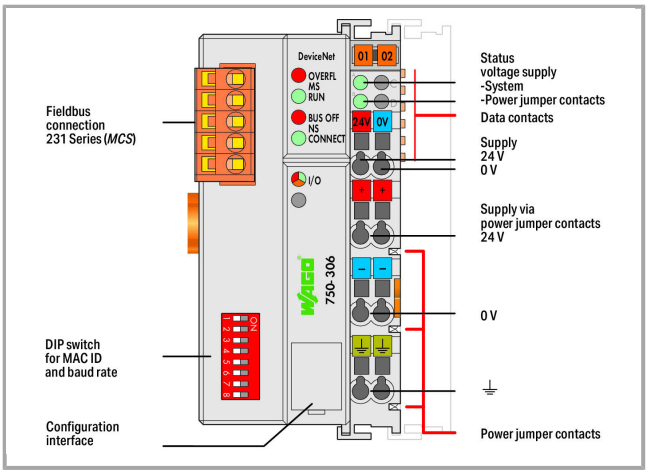
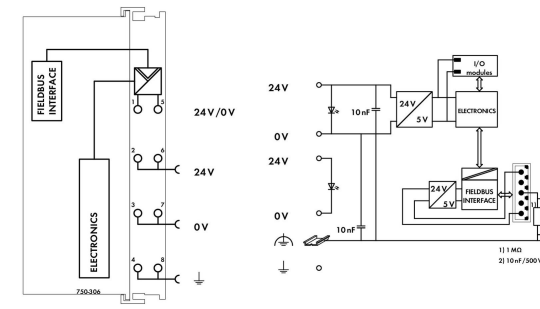
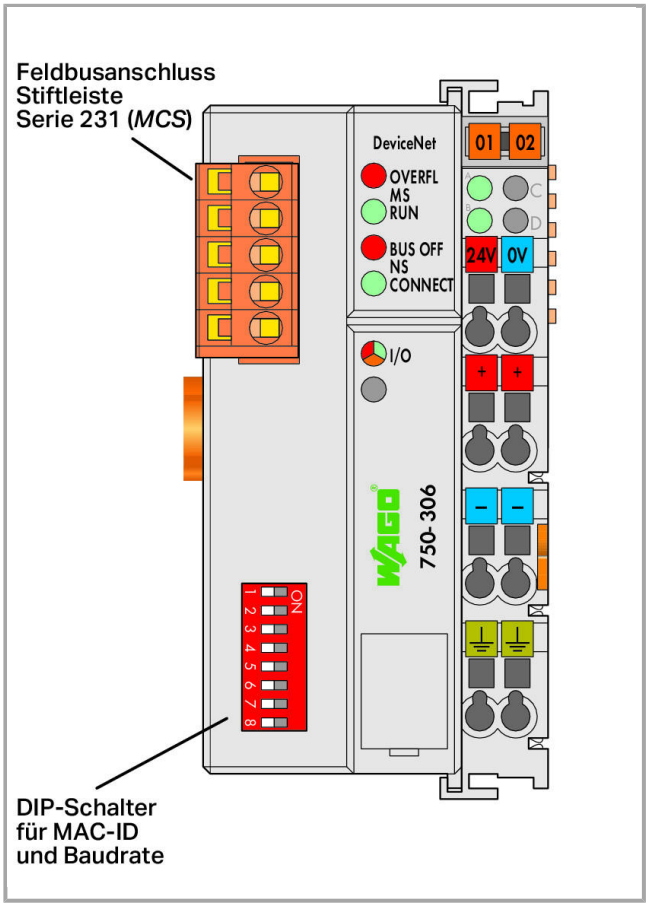
750-306


RoHS ✓ Compliant

BOMcheck.net






## Item description

This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the Device**Net**™ fieldbus.

The buscoupler automatically configures, creating a local process image which may include analog, digital or specialty modules. Analog and specialty module data is sent via words and/or bytes, digital data is sent bit by bit.

Device**Net**™ stores the process image in the corresponding Master control (PLC, PC or NC).

The local process image is divided into two data zones containing the data received and the data to be sent. The process data can be sent via the Device**Net**™ fieldbus to the PLC, PC or NC for further processing, and received from the field via Device**Net**™.

The data of the analog modules is stored in the process image which is created automatically according to the order in which the modules are connected to the buscoupler. The bits of the digital modules are sent byte by byte and added to the analog data. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.

**Note:**

**Notice: EDS files required**

## Data

### Technical Data

| | |
|---|---|
| Communication | DeviceNet |
| Number of fieldbus nodes on the master max. | 64 |
| Max. no. of I/O points | 6000 |
| Baud rate | 500 kBd (125 Kbaud, 250 Kbaud, 500 Kbaud) |
| Fieldbus segment length max. | 500 m |
| Transmission medium | Shielded Cu cable Trunk line: 2 x 0.82 mm² + 2 x 1.7 mm² Drop line: 2 x 0.2 mm² + 2 x 0.32 mm² |
| Number of modules per node max. | 64 |
| DeviceNet features | Polled I/O message connection<br>Strobed I/O message connection<br>Change of state<br>Cyclic message connection<br>Group 2 only, slave |
| Input and output process image (Fieldbus) max. | 512 Byte/512 Byte |
| System supply voltage | DC 24 V(-25 … +30 %); via wiring level (CAGE CLAMP® connection) |
| Current consumption, system supply (5 V) | 350 mA |
| Total current for system supply | 1650 mA |
| Field supply voltage | DC 24 V (-25 … +30 %); via power jumper contacts |
| Input current via DeviceNet interface at 11 V | 120 mA |
| Input current typ. at rated load (24 V) | 500 mA |
| Efficiency of the power supply (typ.) at nominal load (24 V) | 87 % |
| Isolation | 500 V system/supply |
| Number of outgoing power jumper contacts | 3 |
| Current carrying capacity of the power jumper contacts | 10 A |
| Certification | ODVA |

### Connection data

| | |
|---|---|
| Connection technology: communication/fieldbus | DeviceNet: 1 x 5-pole male connector |
| Connection technology: field supply | 6 x CAGE CLAMP® |
| Connection technology: system supply | 2 x CAGE CLAMP® |
| Connection technology: Device configuration | 1 x 4-pole male connector |
| Connection type (1) | System/field supply |
| 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 inch |

## Geometrical Data

| | |
|---|---|
| Width | 50.5 mm / 1.988 inch |
| Height | 71.1 mm / 2.799 inch |
| Height from upper-edge of DIN-35 rail | 63.9 mm / 2.516 inch |
| Depth | 100 mm / 3.937 inch |

## Mechanical data

| | |
|---|---|
| Type of mounting | DIN-35 rail |

## Material Data

| | |
|---|---|
| Color | light gray |
| Housing material | Polycarbonate, polyamide 6.6 |
| Weight | 200 g |
| Conformity marking | 1 |

## Environmental Requirements

| | |
|---|---|
| Surrounding air (operating) temperature | 0 … 55 °C |
| Surrounding air (storage) temperature | -40 … 85 °C |
| Protection class | IP20 |
| Degree of pollution (5) | 2 per IEC 61131-2 |
| Operating altitude | 0 … 2000 m |
| Mounting position | horizontal (standing/lying) or vertical |
| Relative air humidity (no condensation) | 95 % |
| Vibration resistance | 4g per IEC 60068-2-6 |
| Shock resistance | 15g per IEC 60068-2-27 |
| EMC immunity to interference | acc. to EN 61000-6-2, marine applications |
| EMC emission of interference | acc. to EN 61000-6-4, 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 |

## Commercial data

| | |
|---|---|
| Product Group | 15 (Remote I/O) |
| Country of origin | DE |
| GTIN | 4045454526542 |
| Customs Tariff No. | 85176200000 |

## Approvals / Certificates

### Ex-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|---|---|
| | **ATEX**<br>TUEV Nord Cert GmbH | EN 60079-0 | TÜV 07 ATEX 554086 X en. |
| | **TUEV Nord**<br>TUEV Nord Cert GmbH | IEC 60079-0 | IECEx TUN 09.0001 X |

### Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|---|---|
| | **KC**<br>National Radio Research Agency | Article 58-2, Clause 3 | MSIP-REM-W43-FBC750 |
| | **KC**<br>National Radio Research Agency | Article 58-2, Clause 3 | MSIP-REM-W43-FBC750 |

### Ship Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|---|---|
| | **ABS**<br>American Bureau of Shipping | - | 19-HG1821926 |
| | **ABS**<br>American Bureau of Shipping | Rules for class. of Steel Ships | 16-HG1554285-PDA |
| | **BV**<br>Bureau Veritas S.A. | - | 13453/DO BV |
| | **DNV GL**<br>Det Norske Veritas, Germanischer Lloyd | - | TAA0000194 |
| | **KR** | - | HMB05880- |

| | | | |
|---|---|---|---|
| | Korean Register of Shipping | | AC001 |
| | **LR**<br>Lloyds Register | - | 02/20026 (E5) |
| | **NK**<br>Nippon Kaiji Kyokai | - | TA17255M |
| | **PRS**<br>Polski Rejestr Statków | - | TE/2236<br>/880590/19 |
| | **RINA**<br>RINA Germany GmbH | - | ELE134212XG |

**UL-Approvals**

| Logo | Approval | Additional Approval Text | Certificate name |
|---|---|---|---|
| | **UL**<br>UL International Netherlands B.V. (ORDINARY LOCATIONS) | UL 508 | E175199<br>Sec.1 |

## Compatible products

**shield connection**

| | | |
|---|---|---|
| | **Item no.: 790-108**<br>Shield clamping saddle; 11 mm wide; diameter of compatible conductor | 790-108 |
| | **Item no.: 790-116**<br>Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 … 16 mm | 790-116 |
| | **Item no.: 790-124**<br>Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 … 24 mm | 790-124 |
| | **Item no.: 790-140**<br>Shield clamping saddle; diameter of compatible conductor | 790-140 |
| | **Item no.: 790-208**<br>Shield clamping saddle; 12.4 mm wide; 3 … 8 mm | 790-208 |

| | | |
|---|---|---|
|  | **Item no.: 790-216**<br>Shield clamping saddle; 21.8 mm wide; 6 … 16 mm | 790-216 |
|  | **Item no.: 790-220**<br>Shield clamping saddle; 30 mm wide; 6 … 20 mm | 790-220 |

**General accessories**

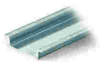
| | | |
|---|---|---|
|  | **Item no.: 750-921**<br>Bluetooth® Adapter | 750-921 |
|  | **Item no.: 750-923**<br>Configuration cable; USB connector; Length: 2.5 m | 750-923 |
|  | **Item no.: 750-923/000-001**<br>Configuration cable; USB connector; Length: 5 m | 750-923 |

**Marking accessories**

| | | |
|---|---|---|
|  | **Item no.: 2009-145**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-002**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-005**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-006**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-007**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-012**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-023**<br>Mini-WSB Inline; for smartPRINTER; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 2009-145/000-024**<br>Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type | 2009-145 |
|  | **Item no.: 248-501**<br>Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card | 248-501 |
|  | **Item no.: 248-501/000-002**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |

| | | |
|---|---|---|
|  | **Item no.: 248-501/000-005**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 248-501/000-006**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 248-501/000-007**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 248-501/000-012**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 248-501/000-017**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 248-501/000-023**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 248-501/000-024**<br>Mini-WSB marking card; as card; not stretchable; plain; snap-on type | 248-501 |
|  | **Item no.: 750-100**<br>Marker card; as a DIN A4 sheet; plain | 750-100 |
|  | **Item no.: 750-103**<br>Group marker carrier | 750-103 |
|  | **Item no.: 750-106**<br>Group marker carrier | 750-106 |

**Carrier rail**

| | | |
|---|---|---|
|  | **Item no.: 210-112**<br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm | 210-112 |
|  | **Item no.: 210-113**<br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715 | 210-113 |
|  | **Item no.: 210-114**<br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715 | 210-114 |
|  | **Item no.: 210-115**<br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm | 210-115 |
|  | **Item no.: 210-118**<br>Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715 | 210-118 |
|  | **Item no.: 210-196**<br>Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715 | 210-196 |
|  | **Item no.: 210-197**<br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715 | 210-197 |

| | | |
|---|---|---|
|  | **Item no.: 210-198**<br>Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715 | 210-198 |
|  | **Item no.: 210-504**<br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715 | 210-504 |
|  | **Item no.: 210-505**<br>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715 | 210-505 |
|  | **Item no.: 210-506**<br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715 | 210-506 |
|  | **Item no.: 210-508**<br>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715 | 210-508 |
| **system box** | | |
|  | **Item no.: 850-804**<br>IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip | 850-804 |
|  | **Item no.: 850-804/000-001**<br>IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip | 850-804 |
|  | **Item no.: 850-805**<br>IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip | 850-805 |
|  | **Item no.: 850-814/002-000**<br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate | 850-814 |
|  | **Item no.: 850-815/002-000**<br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate | 850-815 |
|  | **Item no.: 850-816/002-000**<br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate | 850-816 |
|  | **Item no.: 850-817/002-000**<br>IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate | 850-817 |
|  | **Item no.: 850-825**<br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20 | 850-825 |
|  | **Item no.: 850-826**<br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip | 850-826 |
|  | **Item no.: 850-826/002-000**<br>IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip | 850-826 |
|  | **Item no.: 850-827**<br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip | 850-827 |
|  | **Item no.: 850-827/002-000**<br>IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip | 850-827 |

| | | | |
|---|---|---|---|
|  | **Item no.: 850-828**<br>IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip | | 850-828 |
|  | **Item no.: 850-828/002-000**<br>IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip | 7002-000 | 850-828 |
|  | **Item no.: 850-834**<br>IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20 | | 850-834 |
|  | **Item no.: 850-835**<br>IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip | | 850-835 |
|  | **Item no.: 850-836**<br>IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip | | 850-836 |

## Downloads

### Documentation

#### Manual

| | | | |
|---|---|---|---|
| DeviceNet Fieldbus Coupler<br>125 - 500 kBaud, digital and analog signals | V 2.0.0 | pdf<br>4.6 MB | Download |

#### Bid Text

| | | | |
|---|---|---|---|
| 750-306<br>IO, Koppler | Oct 2, 2014 | doc<br>30.2 kB | Download |

#### Additional Information

| | | | |
|---|---|---|---|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf<br>265.8 kB | Download |

#### System Description

| | | | |
|---|---|---|---|
| Design Notes<br>Basic conditions and recommendations for higher operational safety | V 2.0.0 | pdf<br>1.5 MB | Download |
| Use in Hazardous Environments<br>Term definition, marking and installation regulations | V 1.0.0 | pdf<br>1.0 MB | Download |
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf<br>780.2 kB | Download |
| 750/753 Series I/O-System – General Product Information | | pdf<br>1.7 MB | Download |

## Application Notes

### Application note, other

| | | | |
|---|---|---|---|
| WAGO I/O Device Net Coupler with AB SCL500 (a100102)<br>WAGO I/O Device Net Coupler | V1.0.0<br>Jul 27, 2011 | zip<br>383.5 kB | Download |
| WAGO I/O Device Net Coupler with AB ControlLogix (a100103)<br>This document illustrates the various steps taken to configure an Allen-Bradley 1756-DNB Scanner Module for polled communications with a node of WAGO Series 750 DeviceNet I/O. This document should serve as a supplement to the appropriate WAGO DeviceNet product manual when installing and/or commissioning a node of WAGO Series 750 DeviceNet I/O. | V1.0.0<br>Mar 19, 2012 | zip<br>383.9 kB | Download |
| Inbetriebnahme einer Omron SPS mit einem WAGO DeviceNet Feldbuskoppler a201703<br>Der Anwendungshinweis beschreibt am Beispiel einer Omron SYSMAC CJ1M SPS mit DRM21 DeviceNet Masters die Anbindung einer Omron SPS an den WAGO DeviceNet Feldbus Koppler 750-306. | V1.0.0 | zip<br>719.0 kB | Download |

## CAD/CAE - Smart Data

### CAD data

| | | | |
|---|---|---|---|
| 3D Download 750-306 | | URL | Download |

## Device Files

### Device Description File

| | | | |
|---|---|---|---|
| EDS for DeviceNet / 750, 752, 755 and 767 Series | 10<br>Mar 25, 2011 | zip<br>68.3 kB | Download |

### Device Driver

| | | | |
|---|---|---|---|
| WAGO USB Service Cable Driver / 750 and 857 Series<br>759-923 | 6.5.3.0<br>Sep 10, 2014 | zip<br>4.8 MB | Download |

## Product family

**750/753 Series I/O-System**
Learn more about the product family.

Show all products from the family