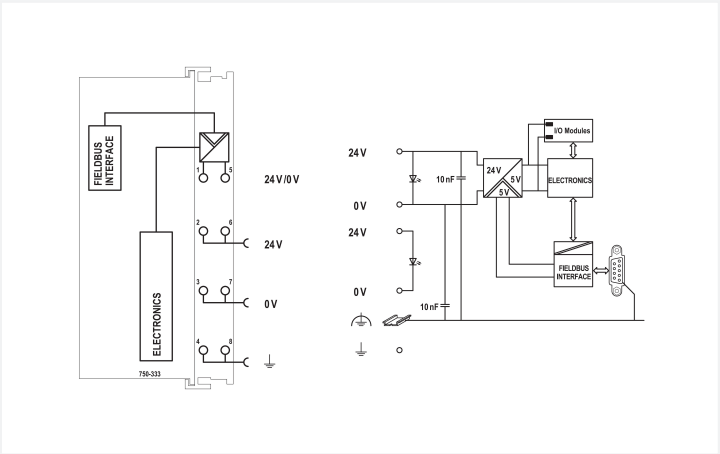
# Data Sheet | Item Number: 750-333/025-000

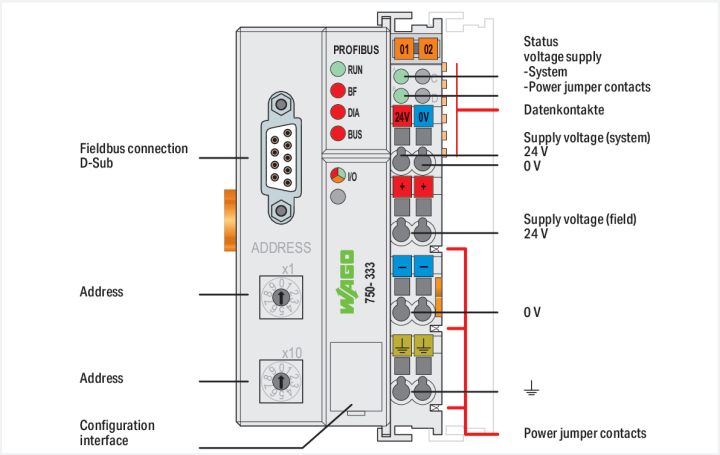
Fieldbus Coupler PROFIBUS DP; 2nd Generation; 12 MBd; Ext. Temperature

https://www.wago.com/750-333/025-000






Color: light gray




The 750-333 Fieldbus Coupler maps the peripheral data of all the WAGO I/O System's I/O modules on PROFIBUS DP.
When initializing, the coupler determines the node's module structure and creates the process image of all inputs and outputs. Modules with a bit width smaller than eight are grouped in one byte for address space optimization.
It is furthermore possible to deactivate I/O modules and to modify the image of the node according to the connected signals without having to modify the existing control application.
The diagnostic concept is based on ID- and channel-related diagnostics according to EN 50170. This does away with the need for programming modules to evaluate manufacturer-specific diagnostic data.

## Notes

| | |
|---|---|
| Note | **Note: Configuration files required (GSD)!** |

## Technical data

| | |
|---|---|
| Communications | PROFIBUS |
| Number of fieldbus nodes on master (max.) | 96 |
| Number of I/O points | 6000 |
| Transmission rate | 9.6 kBd ... 12 MBd |
| Bus segment length (max.) | 1200 m |
| Transmission medium (communication/fieldbus) | Cu cable per EN 50170 |
| Transmission time | typ. 1 ms (10 couplers; each 32 digital I/O and 12 Mbaud) max. 3.3 ms |
| Number of modules per node (max.) | 63 |
| Number of modules without a bus extension (max.) | 63 |
| Input and output process image (fieldbus) max. | 244 bytes/244 bytes |

## Technical data

| | |
|---|---|
| Supply voltage (system) | 24 VDC, SELV/PELV (-25 … +30 %); via wiring interface (CAGE CLAMP® connection); External fuse required: 2 A slow-blow |
| Current consumption (system supply) | 200 mA |
| Total current (system supply) | 1800 mA |
| Supply voltage (field) | 24 VDC, SELV/PELV (-25 … +30 %); via power jumper contacts (supply via CAGE CLAMP® connection; distribution via spring contact); External fuse required: 10 A slow-blow |
| Input current (typ.) at nominal load (24 V) | 500 mA |
| Power supply efficiency (typ.) at nominal load (24 V) | 87 % |
| Number of outgoing power jumper contacts | 3 |
| Current carrying capacity (power jumper contacts) | 10 A |

## Safety and protection

| | |
|---|---|
| Protection type | IP20 |
| Pollution degree | 2 per IEC 61131-2 |
| Isolation | 500 VDC system/field |

## Connection Data

| | |
|---|---|
| Connection technology: communication/fieldbus | PROFIBUS: 1 x D-sub 9 socket |
| Connection technology: field supply | 6 x CAGE CLAMP® |
| Connection technology: system supply | 2 x CAGE CLAMP® |
| Connectable conductor materials | Copper |
| Connection type | 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 inches |
| Connection technology: device configuration | 1 x Male connector; 4-pole |

## Physical data

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

## Mechanical data

| | |
|---|---|
| Mounting type | DIN-35 rail |

## Material data

| | |
|---|---|
| Color | light gray |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 2.421 MJ |
| Weight | 183.8 g |
| Conformity marking | CE |


Continued on next page

## Environmental requirements

| | |
|---|---|
| Ambient temperature (operation) | -20 … +60 °C |
| Ambient temperature (storage) | -40 … +85 °C |
| 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 % |
| Relative humidity (with condensation) | Short-term condensation per Class 3K6/IEC EN 60721-3-3 and E-DIN 40046-721-3, accounting for a temperature range of –20 to +60 °C (except for wind-driven precipitation, water and ice formation) |
| 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 |
| EMC emission of interference | per 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 |

## Data Act

| | |
|---|---|
| Pre-contractual Information | <a href="https://www.wago.com/de/d/Data-Act-750-Series-Coupler">Data-Act-750-Series-Coupler</a> |

## Commercial data

| | |
|---|---|
| Product Group | 15 (I/O System) |
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4045454526887 |
| Customs tariff number | 85176200000 |

## Product Classification

| | |
|---|---|
| UNSPSC | 32151705 |
| eCl@ss 10.0 | 27-24-26-07 |
| eCl@ss 9.0 | 27-24-26-07 |
| ETIM 9.0 | EC001603 |
| ETIM 10.0 | EC001603 |
| ECCN | NO US CLASSIFICATION |

## Environmental Product Compliance

| | |
|---|---|
| CAS-No. | 12060-00-3<br>1303-86-2<br>1317-36-8<br>25550-51-0<br>7439-92-1<br>79-94-7 |
| REACH Candidate List Substance | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>4-Methyl-1,2-cyclohexanedicarboxylic anhydride<br>Diboron trioxide<br>Lead<br>Lead monoxide<br>Lead titanium oxide (PbTiO3) |
| RoHS Compliance Status | Compliant,With Exemption |
| RoHS Exemption | 6(c)<br>7(a)<br>7(c)-I<br>7(c)-II<br>7c |
| SCIP notification number (Bulgaria) | 7141b4f4-957e-4315-b10f-7d5a96919a93 |
| SCIP notification number (Czech Republic) | 3e128e36-6509-41bb-adac-a32cf2aaff97 |


Continued on next page

## 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 Agency | Article 58-2, Clause 3 | MSIP-REM-W43-FBC750 |
| UL<br>Underwriters Laboratories 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 | - | - |
| UK-Declaration of Conformity<br>WAGO GmbH & Co. KG | - | - |

### Approvals for marine applications

| Approval | Standard | Certificate Name |
|---|---|---|
| ABS<br>American Bureau of Shipping | - | 22-2227356-PDA |
| BSH<br>Bundesamt fuer Seeschiffahrt und Hydrographie | - | 1104 |
| DNV<br>DNV Germany GmbH | DNV-CG-0339,Aug.2021 | TAA00001J4 |
| LR<br>Lloyds Register | - | LR2475997TA |
| PRS<br>Polski Rejestr Statków | - | TE/1102/880590/23 |

### Approvals for hazardous areas

| Approval | Standard | Certificate Name |
|---|---|---|
| ATEX<br>TUEV Nord Cert GmbH | EN 60079-0 | TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc) |
| IECEx<br>TUEV Nord Cert GmbH | IEC 60079-0 | IECEx TUN 14.0035 X (Ex ec IIC T4 Gc) |
| INMETRO<br>TÜV Rheinland do Brasil Ltda. | IEC 60079-0 | TÜV 12.1297 X |
| UKEx<br>WAGO GmbH & Co. KG | EN 60079-0 | UKCA_WA GO22UKEX003X_ec |
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

| | |
|---|---|
| Environmental Product Compliance 750-333/025-000 | |

### Documentation

**Manual**

| | | | |
|---|---|---|---|
| Product Manual PROFIBUS DP/ V1 Fieldbus Coupler | V 1.3.1<br>10.06.2024 | pdf<br>7569.93 KB | |
| System Manual Series 750/753 | | | |

**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 | |


Continued on next page

### Bid Text

| | | |
|---|---|---|
| 750-333/025-000 | 19.02.2019 | xml 6.04 KB |
| 750-333/025-000 | 21.07.2017 | doc 28.50 KB |

### Instruction Leaflet

| | | |
|---|---|---|
| CCC Ex (Additional information) | 26.04.2023 | pdf 159.76 KB |

## Application Notes

### Application Note CoDeSys 2.3

| | | |
|---|---|---|
| HART Tool Routing via PROFIBUS with 750-833 and 750-333 (a116140) | 1.0.0 22.03.2019 | pdf 5214.96 KB |

## CAD/CAE-Data

### CAD data

2D/3D Models
750-333/025-000

### CAE data

EPLAN Data Portal
750-333/025-000

WSCAD Universe
750-333/025-000

ZUKEN Portal
750-333/025-000

## Runtime Software

### Firmware

| | | |
|---|---|---|
| 0750-0333, Feldbuskoppler PROFIBUS DP | V 25 07.07.2025 | zip 422.32 KB |

## Device Files

### Device Driver

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

## Libraries

### Device Description File

| | | |
|---|---|---|
| 750-910; GSD files for PROFIBUS / 750, 752, 755, 758 and 767 Series | 6.8 15.01.2023 | zip 5322.44 KB |

 Continued on next page

# 1 Compatible Products

## 1.1 Optional Accessories

### 1.1.1 Cables and connectors

#### 1.1.1.1 Connector plug



Item No.: 750-960
Fieldbus Connector PROFIBUS; with D-sub male connector; 9-pole

### 1.1.2 Communication

#### 1.1.2.1 Communication cable



Item No.: 750-923
Configuration cable; USB connector; Length: 2.5 m



Item No.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

### 1.1.3 DIN-rail

#### 1.1.3.1 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.: 210-112
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

### 1.1.4 Marking

#### 1.1.4.1 Group marker carrier



Item No.: 750-106
Group marker carrier

#### 1.1.4.2 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


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### 1.1.4.2 Marker



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

### 1.1.4.3 Marker carrier



Item No.: 750-103
Group marker carrier

## 1.1.5 Shield termination

### 1.1.5.1 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

## 1.1.6 System enclosure

### 1.1.6.1 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


Continued on next page

### 1.1.6.1 System enclosure



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