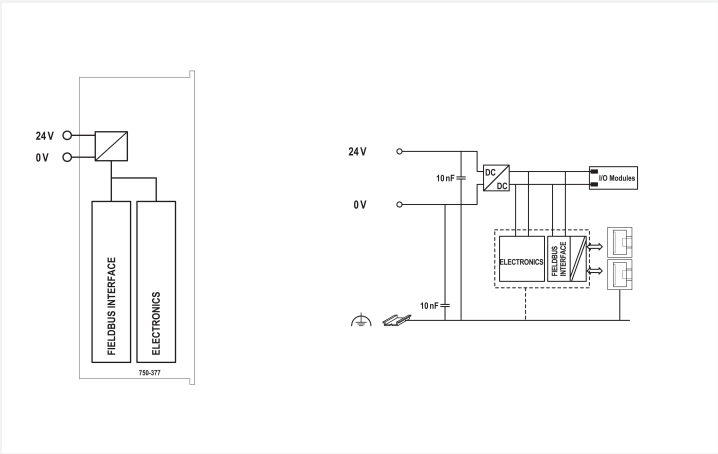
# Data Sheet | Item Number: 750-377/025-000

Fieldbus Coupler PROFINET IO; 3rd Generation; Ext. Temperature; ECO Advanced

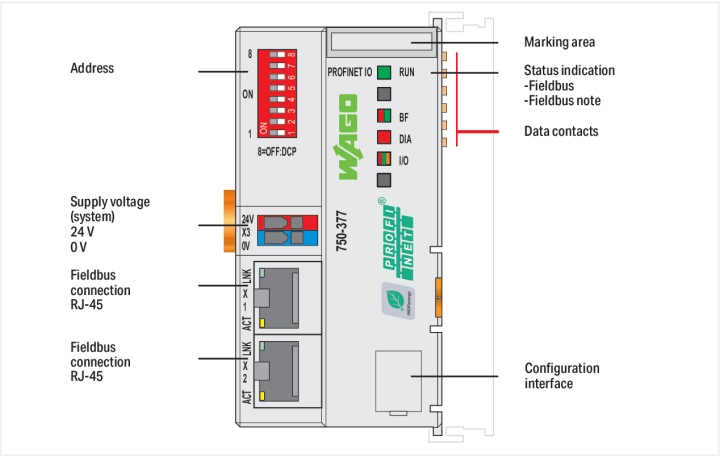
https://www.wago.com/750-377/025-000






Color: light gray

Similar to illustration




This fieldbus coupler connects the WAGO I/O System 750 to PROFINET IO (open, real-time Industrial ETHERNET automation standard).
The coupler identifies the connected I/O modules and creates local process images for one I/O controller and one I/O supervisor according to preset configurations. This process image may include a mixed arrangement of analog (word-by-word data transfer) or complex modules and digital (bit-by-bit data transfer) modules.
The fieldbus coupler operates as an I/O device in the network. It features an integrated 2-port switch, simplifying the creation of a line structure without additional network components.
The device name can be assigned via DCP protocol or a default name can be instantiated via DIP switch.

## Technical data

| | |
|---|---|
| Communications | PROFINET IO |
| Device-specific | Supported profiles: PROFIsafe V2, PROFIenergy V1.0; ID code: Vendor ID: 0x011D; Device ID: 0x02EE; Module ID: 0x01000177 (firmware version 01, 02), 0x02000177 (from firmware version 03) |
| PROFINET IO features | Integrated 2-port switch; Auto-negotiation, Auto-MDIX; Isochronous Real Time Communication; Send clock: 1 ms (RT); 1, 2, 4 ms (IRT); Coupler replacement without programming tool |
| Transmission rate | 10/100 Mbit/s (10 Mbit/s (ETHERNET protocols), 100 Mbit/s full duplex (PROFINET IO)) |
| Bus segment length (max.) | 100 m |
| Transmission medium (communication/fieldbus) | Twisted pair S-UTP; 100 Ω; Cat. 5 |
| Number of modules per node (max.) | 64 |
| Number of modules without a bus extension (max.) | 64 |
| Input and output process image (fieldbus) max. | 256 bytes/256 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) | 450 mA |
| Total current (system supply) | 700 mA |
| Input current (typ.) at nominal load (24 V) | 280 mA |
| Power supply efficiency (typ.) at nominal load (24 V) | 90 % |

## Safety and protection

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

## Connection Data

| | |
|---|---|
| Connection technology: communication/fieldbus | PROFINET IO: 2 x RJ-45 |
| Connection technology: system supply | 2 x CAGE CLAMP® |
| Connectable conductor materials | Copper |
| Connection type | System supply |
| Solid conductor | 0.08 … 1.5 mm² / 28 … 14 AWG |
| Fine-stranded conductor | 0.08 … 1.5 mm² / 28 … 14 AWG |
| Strip length | 5 … 6 mm / 0.2 … 0.24 inches |
| Connection technology: device configuration | 1 x Male connector; 4-pole |

## Physical data

| | |
|---|---|
| Width | 49.5 mm / 1.949 inches |
| Height | 96.8 mm / 3.811 inches |
| Depth | 71.9 mm / 2.831 inches |
| Depth from upper-edge of DIN-rail | 64.7 mm / 2.547 inches |

## Mechanical data

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

## Material data

| | |
|---|---|
| Color | light gray |
| Housing material | Polycarbonate; polyamide 6.6 |
| Fire load | 1.355 MJ |
| Weight | 79.9 g |
| Conformity marking | CE |

## 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 |


Continued on next page

## Environmental requirements

| | |
|---|---|
| EMC emission of interference | per EN 61000-6-3, 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/global/d/Data-Act-750-Series-Coupler">Data-Act-750-Series-Coupler</a> |

## Commercial data

| | |
|---|---|
| PU (SPU) | 1 pcs |
| Packaging type | Box |
| Country of origin | DE |
| GTIN | 4055143039369 |
| 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. | 1303-86-2<br>1317-36-8<br>693-98-1<br>7439-92-1<br>79-94-7 |
| REACH Candidate List Substance | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol<br>2-methylimidazole<br>Diboron trioxide<br>Lead<br>Lead monoxide |
| RoHS Compliance Status | Compliant,With Exemption |
| RoHS Exemption | 6(c)<br>7(a)<br>7(c)-I<br>7(c)-II |
| SCIP notification number (Austria) | 2b3c31ee-153f-4ae4-aabf-9afd3e1c51e3 |
| SCIP notification number (Belgium) | 0f341bd2-c1aa-459c-a12a-65132929e1f3 |
| SCIP notification number (Bulgaria) | e8be251a-df80-4ccb-984e-5b50811c91f8 |
| SCIP notification number (Czech Republic) | f61fa6e1-c21f-497c-b1ff-61575b15c102 |
| SCIP notification number (Denmark) | 4ca5da0e-57f8-40d9-ba49-f855539eaf12 |
| SCIP notification number (Finland) | c9e003b0-f162-444c-9a80-e31fdf51eb0e |
| SCIP notification number (France) | 3ed0fc6d-82bf-4871-99ec-4f64eba3ee75 |
| SCIP notification number (Germany) | 6b9fecea-b750-4dfb-938f-bc1aa055021d |
| SCIP notification number (Italy) | 956d0147-5a94-4f2c-90c1-cc24cd3a51ab |
| SCIP notification number (Netherlands) | 39f12ac7-e7fc-4121-bd2b-b0f27b112071 |
| SCIP notification number (Poland) | 27048b93-5fe4-4dcf-b7a8-c2062fb9ae6e |
| SCIP notification number (Romania) | b3ae85ed-b95f-43b8-b12d-4db847f23ce3 |
| SCIP notification number (Sweden) | b016dcfc-4512-49b6-b75b-892ffe25d074 |


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) |
| CCCEx<br>CQST/CNEx | CNCA-C23-01 | 2020312310000213 (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_WAGO22UKEX003X_ec |
| UL<br>Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS) | UL 121201 | E198726 |

## Downloads

### Environmental Product Compliance

**Compliance Search**

Environmental Product Compliance
750-377/025-000

 Continued on next page

## Documentation

### Manual

| | | | |
|---|---|---|---|
| System Manual Series 750/753 | | | |
| Product Manual PROFINET IO advanced ECO Fieldbus Coupler | V 1.3.1 17.08.2020 | pdf 7755.31 KB | |

### System Description

| | | | |
|---|---|---|---|
| 750/753 Series I/O-System – General Product Information | | pdf 953.35 KB | |
| Overview on WAGO-I/O-SYSTEM 750 approvals | | pdf 770.48 KB | |

### Bid Text

| | | | |
|---|---|---|---|
| 750-377/025-000 | 21.07.2017 | docx 29.94 KB | |
| 750-377/025-000 | 19.02.2019 | x81 6.89 KB | |

### Instruction Leaflet

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

## CAD/CAE-Data

### CAD data

| | | | |
|---|---|---|---|
| 2D/3D Models 750-377/025-000 | | | |

### CAE data

| | | | |
|---|---|---|---|
| EPLAN Data Portal 750-377/025-000 | | | |
| WSCAD Universe 750-377/025-000 | | | |
| ZUKEN Portal 750-377/025-000 | | | |

## Runtime Software

### Firmware

| | | | |
|---|---|---|---|
| 0750-0377/0025-0000, Feldbuskoppler PROFINET IO | V 11 24.01.2023 | zip 879.94 KB | |

## Libraries

### Device Description File

| | | | |
|---|---|---|---|
| Gerätebeschreibungen PROFINET | Version 3.4 15.11.2024 | zip 1533.35 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.: 750-979/000-013
Connector PROFINET; RJ-45; Cat. 6A; angled; AWG 22; Strain relief



Item No.: 750-977/000-013
Connector PROFINET; RJ-45; Cat. 6A; straight; AWG 22



Item No.: 750-978/000-013
Connector PROFINET; RJ-45; Cat. 6A; straight; AWG 22; Strain relief



Item No.: 750-976
PROFINET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

### 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 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


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### 1.1.4.1 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

## 1.1.5 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



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