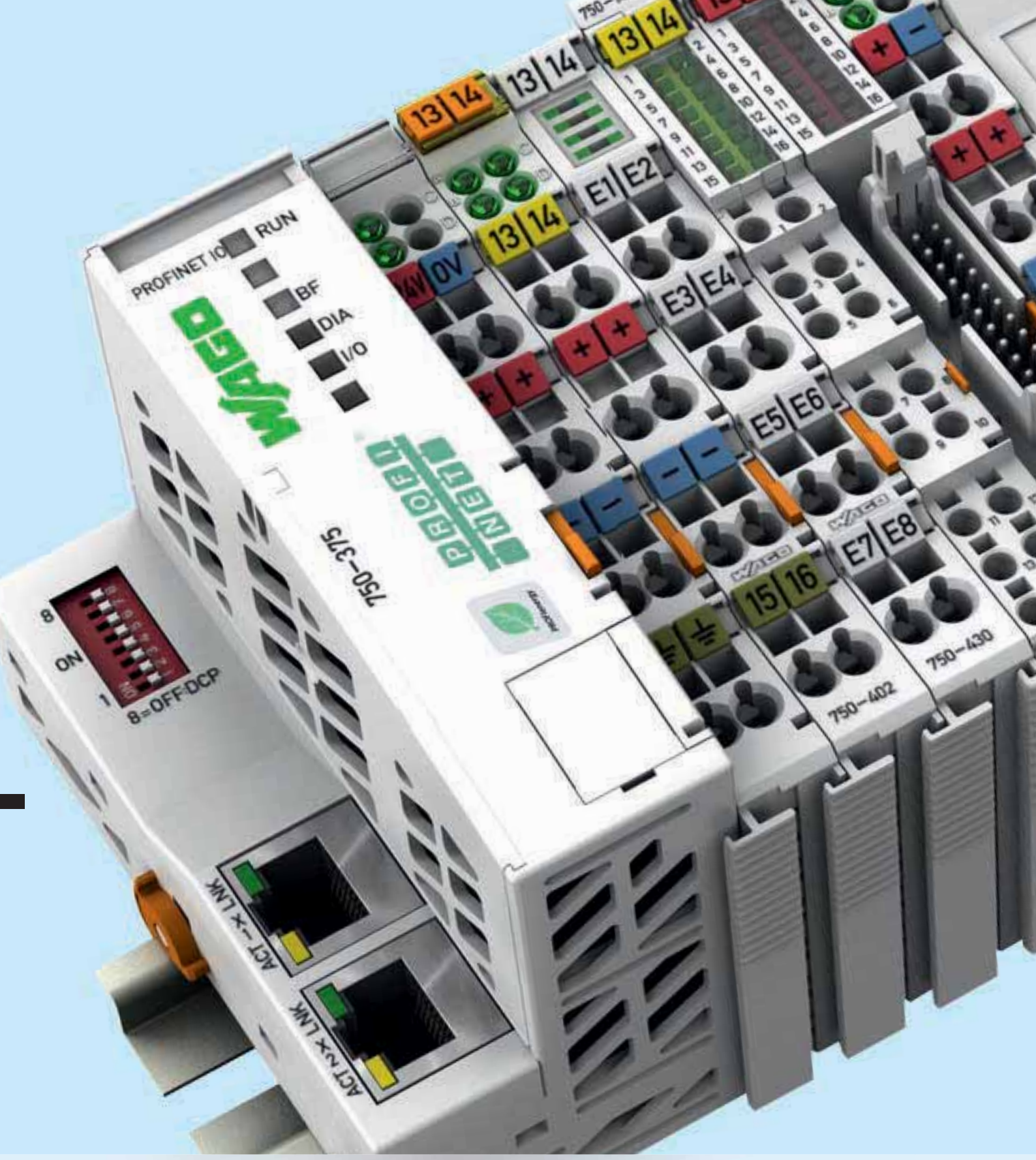


I/O-System – 750 and 753 Series

I/O-System – 750 and 753 Series

- Highly versatile
- More than 500 modules available
- Functional safety
- Ex i

Section 5 ▶

I/O-System – 750 XTR Series

For demanding applications where the following are critical:

- Extreme temperature stability
- Immunity to interference and dielectric strength
- Vibration and shock resistance

Section 6 ▶▶

I/O-System – *SPEEDWAY*

- Uncompromising protection, even in the harshest environments outside the control cabinet
- Degree of protection: IP67
- Fully encapsulated

I/O-System – 750 and 753 Series – One System for Every Application

General Product Information

One System for Every Application

The WAGO-I/O-SYSTEM 750/753 is characterized by its universal application scope and extensive product portfolio. With more than 500 different modules, the versatility and flexibility is so great that virtually every requirement in a wide range of industries is covered.

Industrial Automation

The wide selection of I/O modules for various potential and signal forms, as well as specialty functions, makes it possible to economically wire sensors/actuators – even in safety-related applications.

Building Automation

The broad portfolio allows for flexible, cellar-to-ceiling solutions with conventional I/O modules, standardized industry-specific fieldbus protocols and subsystems for typical applications in lighting, shading, heating, ventilating and air conditioning (HVAC) and more.

Marine and Onshore/Offshore Automation

International approvals coupled with industry-specific features permit use in shipbuilding and other harsh sectors. Addressing industry- and operating environment-specific requirements has enabled use on marine diesels and in the EMC-sensitive area of a vessel's bridge. Because WAGO meets the marine industry's significantly greater requirements for immunity to interference or emission of interference and mechanical performance, WAGO I/O is well-suited to other industries.

Process Automation

Use even under the harshest environmental conditions is possible with special approvals. Potential hazardous location applications include oil and gas production, the chemical industry and power generation. The WAGO-I/O-SYSTEM can be installed in Zone 2/22 with its intrinsically safe I/O modules making it possible to connect sensors/actuators in Zones 1/21 and 0/20.

Maximum Fieldbus Independence

The system's modularity is also reflected in its support for numerous fieldbus systems and ETHERNET standards. Depending on the application, it is possible to choose between fieldbus couplers and communication modules for different protocols.

Easy to Use

The modular, rail-mounted module design permits easy, tool-free installation and straightforward modifications, such as system expansions. The straightforward design prevents installation errors. In addition, proven CAGE CLAMP® technology offers fast, vibration-proof and maintenance-free connections that are independent of operator skill. Depending on the I/O module's granularity, the field peripherals can be wired directly using 1-, 2-, 3- or 4-wire technology.

Worldwide Approvals

International approvals for building and industrial automation, as well as the process and shipbuilding industries guarantee worldwide use even under harsh operating conditions, e.g., ATEX, BR-Ex, IECEx, UL 508 and UL ANSI/ISA.

Extremely Compact

Our patented mechanical design leads to extremely compact I/O nodes. In fact, select I/O modules can accommodate up to 16 channels in a 12 mm (1/2") wide housing.

- Finely granular I/O modules enable customization of nodes
- Space-saving design allows high integration density and direct connection

Maximum Reliability and Ruggedness

The WAGO-I/O-SYSTEM is also designed for applications operating under the most demanding environmental conditions in accordance with the highest standards, e.g., those required in shipbuilding. The system is distinguished from other products that are solely intended for industrial use because of:

- Greatly increased vibration rating
- Significantly greater immunity to interference (ESD)
- Lower emission of interference
- Larger voltage fluctuation range
- Improved ruggedness for continuous operation in a temperature range near the limit

In addition, CAGE CLAMP® spring pressure connections ensure superior reliability. Integrated QA measures in the production process and 100 % function testing ensure consistent quality.

Clear Identification

Pullout group markers identify module functionality (integrated or as an option). Connector assignment and technical data are located on the side of the module. The WAGO WSB marker system also allows for module- and channel-related identification.

- Fieldbus-independent – compatible with all standard fieldbus protocols & ETHERNET standards
- Flexible platform adapts to diverse applications and environments
- Tested and approved worldwide
- Wide range of accessories for marking and connection technology
- CAGE CLAMP® connection technology for vibration-proof, fast and maintenance-free connection

I/O-System – 750 and 753 Series
Versions

Pluggable connector

The pluggable connections of the WAGO-I/O-SYSTEM 753 allow quick and safe replacement. Optional coding pins prevent inserting the pluggable connector in the wrong I/O module. Replacing and connecting the I/O module requires no further action and eliminates possible errors – permanent wiring.
Alternatively, field wiring is possible via interface modules that can be connected to the I/O-System using a ribbon cable (see Configurations).

Extended temperature range

Industrial automation technology is typically operated in temperatures ranging from 0 °C to 55 °C. However, there are also applications that require an extended temperature range. For these applications, WAGO offers a line of WAGO-I/O-SYSTEM 750 products for temperatures ranging from -20 °C to +60 °C.
For extreme applications, where even this extended temperature range is not sufficient, the WAGO-I/O-SYSTEM 750 XTR is available.

Functional safety

In the European Union, the machinery directive defines the requirements for machine and system safety. This ensures a uniform standard for the protection of "life and limb" for people within a machine's operating area.

The required risk assessment is based on harmonized standards (e.g., EN 13849) that identifies existing risks and required risk reduction (SIL or PL quality). Based on the risk assessment, safety functionality can be implemented, e.g., by presence detection or protection zone violations using secure switches or light arrays to immediately shutdown the "risk". For this purpose, the safety signals are detected by the "yellow" safety modules and transmitted via "PROFIsafe" to the F-SPS for further processing. The result is then executed via a safe actuator (output module, controller, etc.).

The unique safety characteristic values of the WAGO modules facilitate calculation of the final safety function up to Cat. 4/PLe according to EN 13849, or SIL3 according to EN 62061 or IEC 61511.

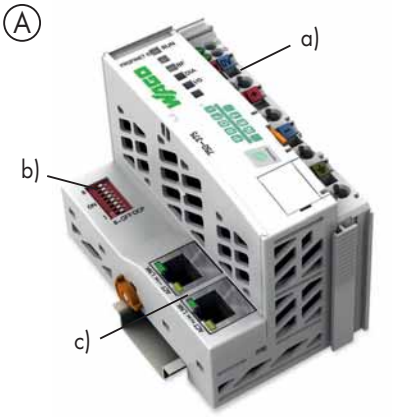
The mixed operation of safe and conventional modules streamlines system configuration. For increased EMC immunity required according to the standard, WAGO offers compact filter modules for the power supply. Specific features of the power supply must be considered, which are described in detail in the corresponding manuals.

Use in hazardous locations

In many plants within the chemical or petrochemical industries, as well as production and process automation, machinery is operated that processes explosive materials including gas and combustible dust. This is why electrical equipment must be explosion-proof in order to avoid injuries to personnel and equipment damage.
The modules within the WAGO-I/O-SYSTEM 750 are designed for use in both non-potentially explosive and potentially explosive areas.
The direct application of fieldbus technology in potentially explosive areas is typically resource-intensive. When used in hazardous areas of Zone 2/22, the WAGO-I/O-SYSTEM 750 offers a safe, easy and economical connection to the sensors and actuators of Zones 0/20 and 1/21. Then WAGO has also developed "blue" Ex-i I/O modules for these intrinsically safe applications, providing users with all the benefits of modern fieldbus technology integrated into a standard node. The WAGO-I/O-SYSTEM 750 is also approved for mining applications.

I/O-System – 750 and 753 Series
Interfaces and Configurations

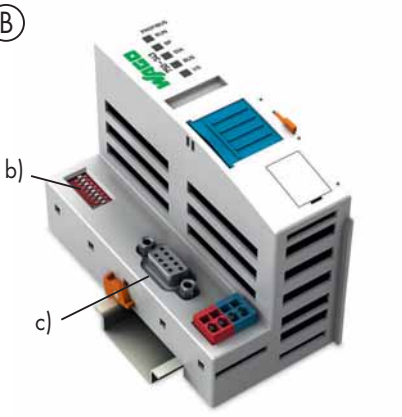
Ⓐ



Housing design fieldbus coupler (A)
- Including supply module (a) to power downstream I/O modules
- Technical differences on the connection level. Optional address switch (b) and fieldbus interface (c)
- W x H* x L (mm) 51 x 65 x 100 or
- W x H* x L (mm) 62 x 65 x 100

Housing design fieldbus coupler ECO (B)
- Restriction on power supply and data width
- W x H* x L (mm) 50 x 65 x 97

Ⓑ



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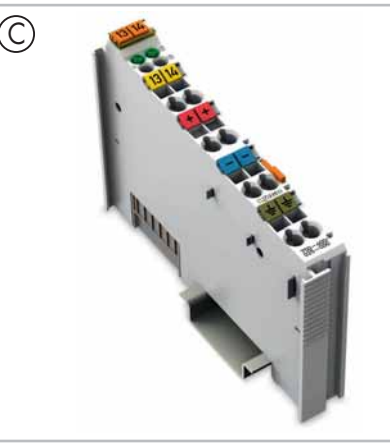
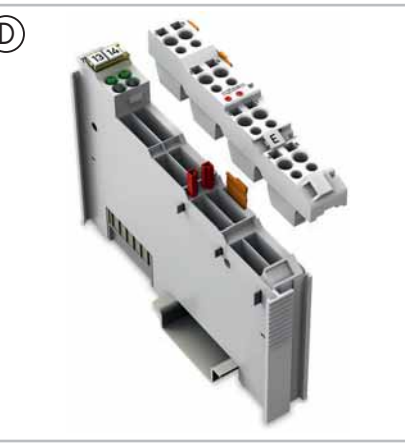


Housing design 750 (C)
- 8 connection terminals (CAGE CLAMP®)
- W x H* x L (mm) 12 x 65 x 100

Housing design 753 (D)
- Pluggable connector
- 8 connection terminals (CAGE CLAMP®)
- W x H* x L (mm) 12 x 65 x 100

Ⓓ

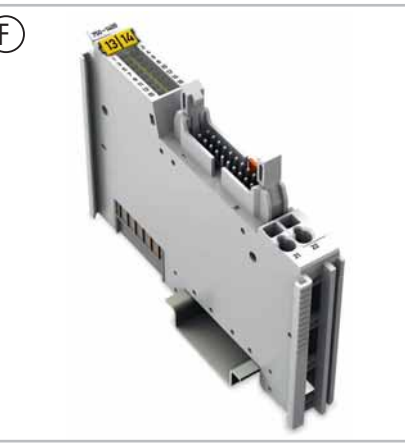


Ⓔ

Housing design 750 (E)
- 16 connection terminals (CAGE CLAMP® S)
- W x H* x L (mm) 12 x 65 x 100

Housing design 750 (F)
- For time-saving wiring between I/O-System and interface modules
- Ribbon cable connector for connection to 289 Series Interface Modules and *JUMPFLEX*® Interface Adapter
- W x H* x L (mm) 12 x 73 x 100

Ⓕ

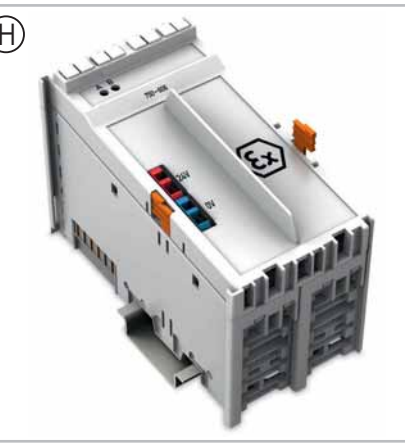


Ⓖ

Housing design double width (G)
Some modules are integrated into a double housing to address specific technological needs. Despite utilizing the same standardized housing, these modules are twice as wide.
- W x H* x L (mm) 24 x 65 x 100

Special housing design (H)
Some modules are integrated into a specialized housing with a specific width and pluggable connectors. The dimensions are specified on the respective catalog page.

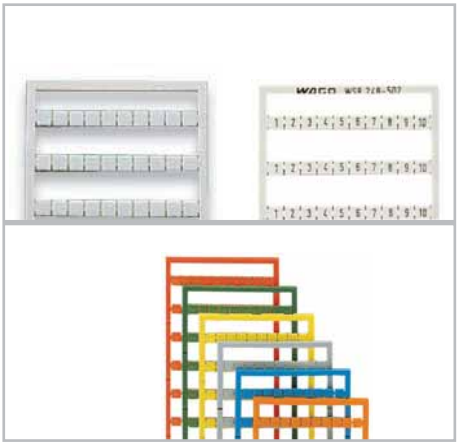
Ⓗ



*Height from upper edge of the DIN-rail

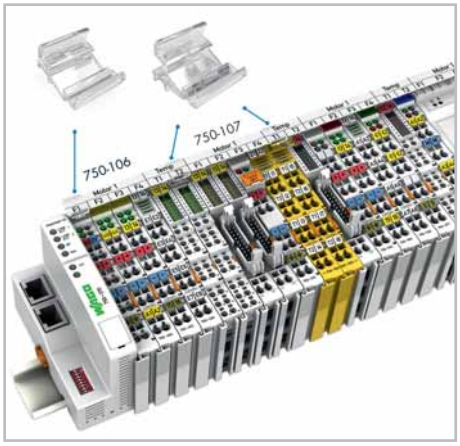
Transparent group marker carriers to indicate module type by color.

Removable group marker carriers are available for all 750 and 753 Series I/O modules with a maximum of four LEDs, as well as all fieldbus couplers with a supply module.

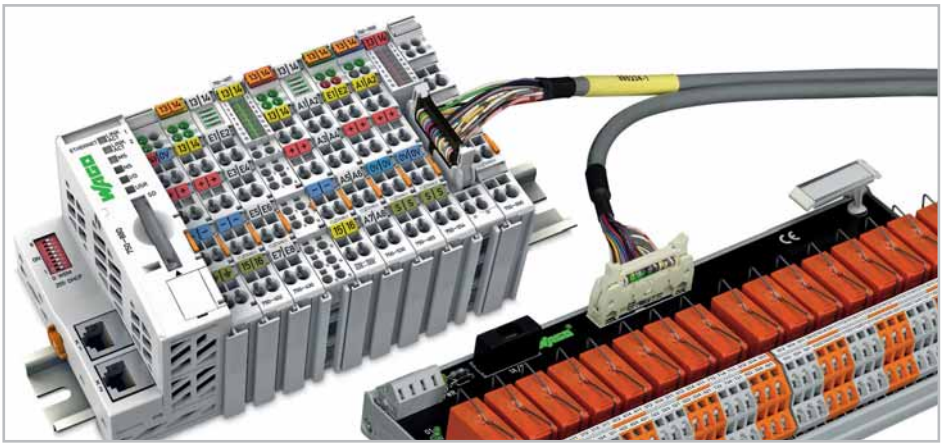


Miniature WSB quick marking system, blank, pre-marked and colored. Suitable for all 750 and 753 Series I/O modules.

Marker carrier for an individual I/O module. Suitable for all 750 and 753 Series I/O modules. The marker carrier can be placed in the upper, miniature WSB carrier plate.



Marker carriers for an I/O node. Both carrier models (750-106 and 750-107) permit continuous marking regardless of the I/O module housing used.



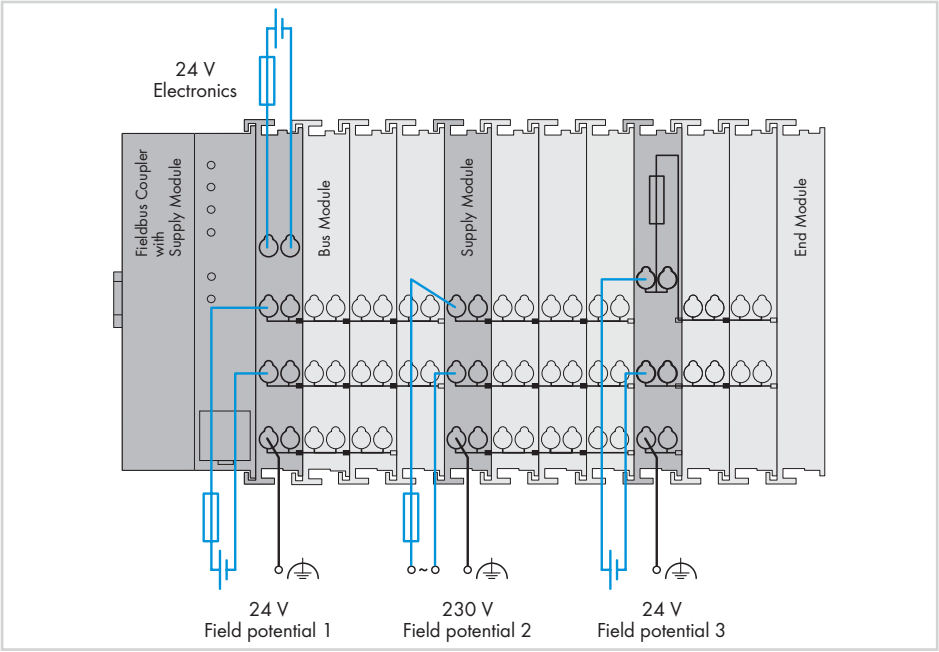
Interface modules for system wiring

Interface cables

Power supply

The fieldbus coupler always powers the internal electronics' power supply. The field-side power supply is electrically isolated via the supply module on the fieldbus coupler or a separate potential supply module. The division enables a separate supply for sensors and actuators. Snapping I/O modules together automatically routes the supply voltages (system power supply 5 VDC via the data contacts and field supply via the optional power jumper contacts). Supply modules with diagnostics enable additional power supply monitoring. This ensures a flexible, user-specific supply design for a station.

The current supply to the electronics is limited by a maximum value. This value depends on the fieldbus coupler used. If the sum of the internal current demand of all the I/O modules exceeds this value, an additional bus supply module is necessary. Even in this case, the power supply to the field-side supply of 10 A may not be exceeded. However, different power supply modules allow a new power supply, formation of potential groups and the implementation of emergency stops.



Notes

Additional steps must be must be implemented based on where the I/O-System is installed:

- As part of **shipbuilding** or in the onshore/offshore sector, specific power and field-side power supply filters must be provided (750-624/626).
- As part of operating **intrinsically safe Ex i modules,** use of a specific supply module is required (750-625). In addition, specific power and field-side power supply filters must be provided (750-624/626).
- For the 24 VDC power supply of electronics and field, PELV/SELV power supply units are recommended. As part of a safety-related application, they are mandatory.
- The mixed operation of safe and conventional modules streamlines system configuration. For increased EMC immunity required according to the standard, WAGO offers compact filter modules for the power supply.

Please refer to the manual for details about the power supply's design.

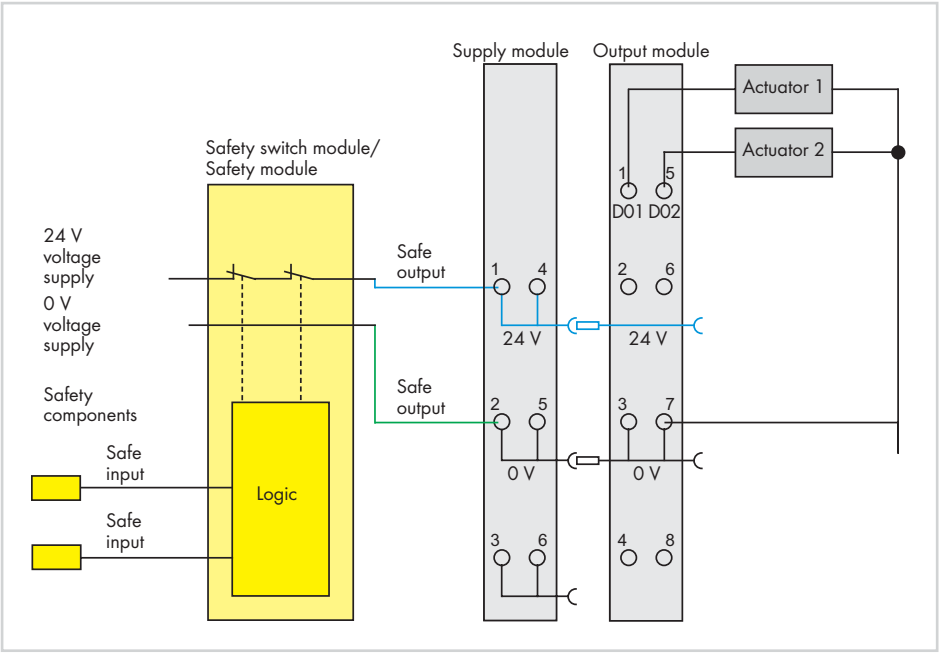
Interference-free in safety-related applications

To safely and easily perform cost-effective, centralized deactivation of complete actuator groups, the actuator's power supply can be switched off using a safety switching device. This can either be performed for each individual actuator or by turning off the power supply to a group of control outputs.

In the event of failure, ensure that no interference from other current or power circuits occurs – even when the control voltage is switched off – so the defined safety function properties (logic and time response) remain unchanged.

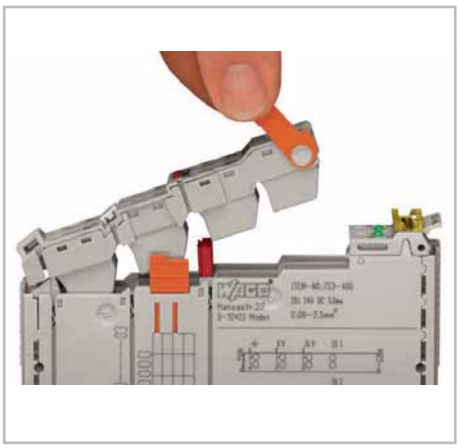
Some modules are designed to provide interference-free safety functionality. These modules comply with safety requirements up to Category 4 of DIN EN ISO 13849-1:2007. The safety category and performance level depend solely on the safety components and their wiring.

Attention!
Interference-free WAGO I/O modules have no active impact on the safety function – they are not an active part of the safety application and are not a substitute for the safety switching device! When using the components in safety functions, the corresponding notes must be observed in the relevant manual.



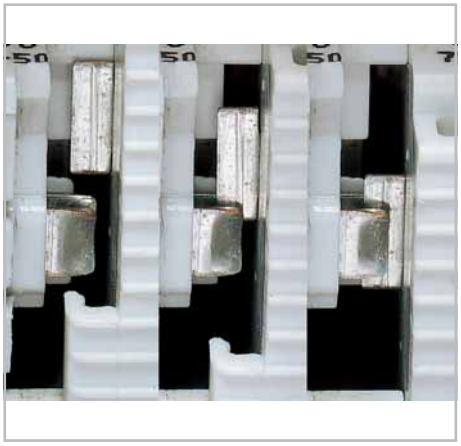
Example: Two-channel, double-pole power supply disconnection

Attachment/release on the mounting rail



Releasing the pluggable connector

Optional protection against mismating of pluggable connectors via coding elements



Secure, automatic connection of the power supply by self-cleaning blade contacts

Notice:
Within select I/O modules, not all power jumper contacts are made! An I/O module with three power jumper contacts (e.g., 2-channel digital input) cannot be snapped into place behind an I/O module in which not every contact is made.

To increase electromagnetic compatibility (EMC), some components are connected to the DIN-rail by a discharge contact. The DIN-rail must always have a low-resistance connection to the ground potential.

Wide range of accessories for EMC-compliant installation including shield connection

Secure, automatic connection of the data and electronics power supply by gold-plated pressure contacts

Securing the cable to the connector

Service interface for configuring the fieldbus coupler. Connectivity via configuration cable or radio adapter

I/O-System – 750 and 753 Series
Item Number Keys

Explanation of the components for the item number key

Item No. : 75x-yyzz

750 Series: Standard
753 Series: Pluggable connector

01zz: Marker
03zz: Fieldbus coupler
zz: Consecutive number

1yzz: 16 connection points or ribbon cables
y4zz: Input
00 ... 49 = Digital input
50 ... 99 = Analog input
04: Counter
y5zz: Output
00 ... 49 = Digital output
50 ... 99 = Analog input
11: PWM
y6zz: Function / technology / communication / system module
0z: Power supply, potential duplication, end module
1z: Power supply, potential duplication, separation modules
2z: Power supply, bus extension, filter, separation modules
3z: Distance and angle measurement, DC drive controller, counter
4z: Communication (building), radio, RTC, vibration monitoring
5z: Serial interfaces, communication
6z: Functional safety
.../000-001: PROFIsafe V1.3
.../000-002: PROFIsafe V2
.../000-003: PROFIsafe V2 iPar
7z: Stepper

09zz: Accessories

.../025-000: Extended temperature range -20 °C ... +60 °C
.../000-800: Interference-free
.../040-000: 750 XTR Series, see Section 5

General Specifications	
Operating voltage	24 VDC (-25 % ... +30 %)*; *for all shipbuilding-certified fieldbus couplers and I/O modules
Operating temperature	0 °C ... +55 °C
Operating temperature for versions with an extended temperature range	-20 °C ... +60 °C
Storage temperature	-25 °C ... +85 °C
Storage temperature for versions with an extended temperature range	-40 °C ... +85 °C
Relative humidity (without condensation)	95 %
Operating altitude	without temperature derating: 0 m ... 2000 m; with temperature derating: 2000 m ... 5000 m (0.5 K/100 m); max.: 5000 m
Degree of contamination	II acc. to IEC 61131-2
Vibration resistance	0.5g (4g for all shipbuilding-certified fieldbus couplers and I/O modules) acc. to IEC 60068-2-6
Shock resistance	15g acc. to IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2 / marine applications
EMC emission of interference	acc. to EN 61000-6-3 / EN 61000-6-4 / marine applications
Protection type	IP20
Mounting position	any
Type of mounting	on DIN 35 rail
Housing material	Polycarbonate, polyamide 6.6
Stress due to contaminants	acc. to IEC 60068-2-42 and IEC 60068-2-43
Maximum contaminant concentration with a relative humidity < 75 %	SO2 ≤ 25 ppm; H2S ≤ 10 ppm
Connection technology	CAGE CLAMP®
Conductor cross-section; stripped lengths for standard I/O modules and fieldbus couplers: 753 Series I/O Modules: ECO Fieldbus Couplers:	 0.08 mm² ... 2.5 mm²/28 ... 14 AWG; 8 ... 9 mm/0.33 in. 0.08 mm² ... 2.5 mm²/28 ... 14 AWG; 9 ... 10 mm/0.37 in. 0.08 mm² ... 1.5 mm²/28 ... 16 AWG; 5 ... 6 mm/0.22 in.
Connection technology	CAGE CLAMP® S
Conductor cross-section; stripped lengths for I/O modules with 16 connecting terminals:	solid: 0.08 mm² ... 1.5 mm²/28 ... 16 AWG, fine-stranded: 0.25 mm² ... 1.5 mm²/22 ... 16 AWG; 8 ... 9 mm/0.33 in.
Current via power jumper contacts	max. 10 A

Fieldbus Couplers

Housing Design I with System Power Supply	
Dimensions (mm) W x H x L	51 x 65 x 100 (Height from upper edge of the DIN-rail)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / 28 ... 14 AWG
Strip lengths	8 ... 9 mm / 0.33 in.

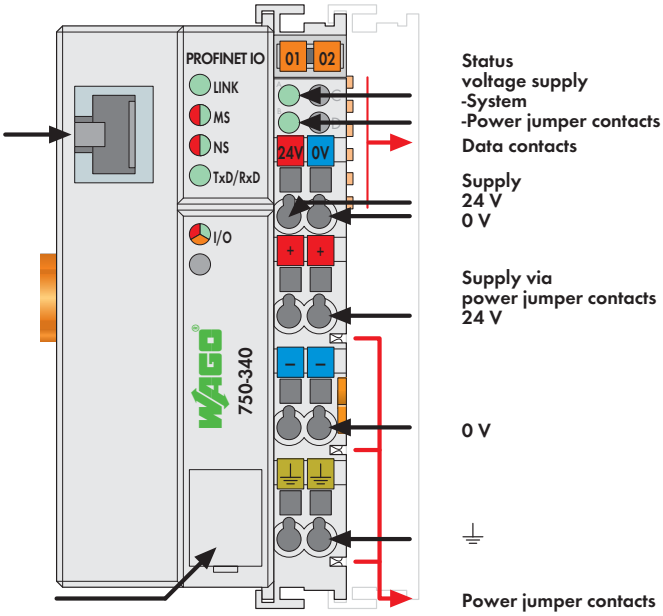
Housing Design II with System Power Supply	
Dimensions (mm) W x H x L	62 x 65 x 100 (Height from upper edge of the DIN-rail)

Housing Design without System Power Supply	
Dimensions (mm) W x H x L	50 x 65 x 97 (Height from upper edge of the DIN-rail)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / 28 ... 14 AWG
Strip lengths	5 ... 6 mm / 0.22 in.

Housing Design ECO	
Dimensions (mm) W x H x L	50 x 65 x 97 (Height from upper edge of the DIN-rail)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / 28 ... 16 AWG
Strip lengths	5 ... 6 mm / 0.22 in.

PROFINET IO Fieldbus Coupler

10/100 Mbit/s; digital and analog signals



This fieldbus coupler connects the WAGO-I/O-SYSTEM as a slave to the PROFINET IO Industrial ETHERNET standard for automation.
The fieldbus coupler supports all WAGO-I/O-SYSTEM modules.

The coupler 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.

The fieldbus coupler is integrated into the application as a PROFINET IO device.

Description	Item No.	Pack. Unit
PROFINET IO 100 MBit	**750-340**	1

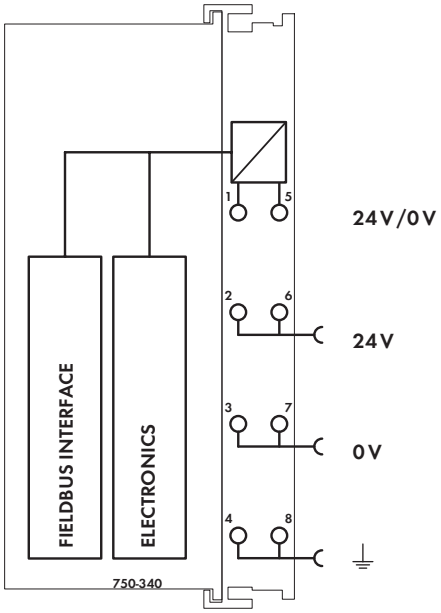
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

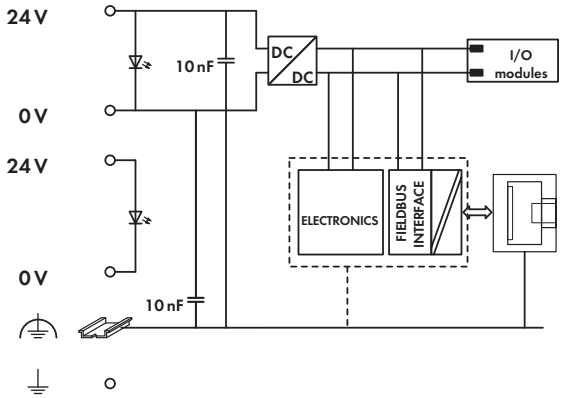
Approvals

Conformity marking	CE
Korea Certification	
UL 508	
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	limited by PROFINET specification
Transmission medium	Twisted Pair S-UTP 100 Ω cat. 5
Max. length of fieldbus segment	100 m between hub station and 750-340;
	max. length of network limited by
	PROFINET specification
Baud rate	10/100 Mbit/s
Buscoupler connection	RJ-45
Protocols	PROFINET RT V2.0
	(RT Class 1);
	Conformance Class A (DCP, UDP);
	HTTP





Technical Data

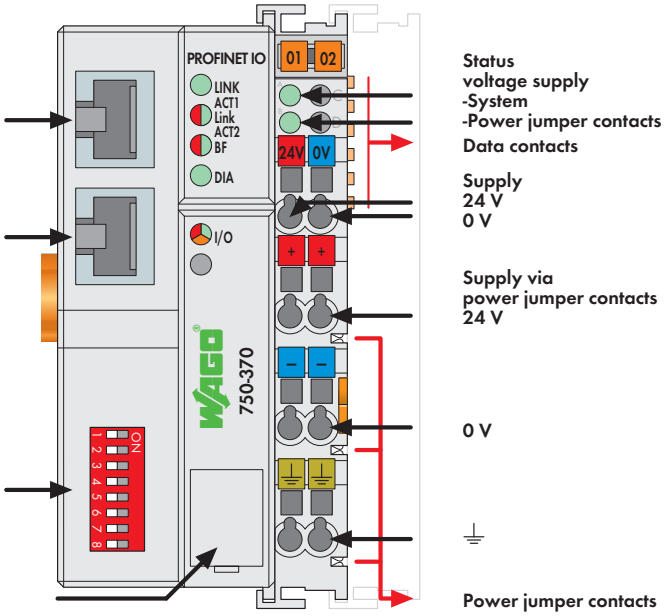
Number of I/O modules	64
with bus extension	128
Max. input process image	320 bytes
Max. output process image	320 bytes
Configuration	via PC
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	179.5 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

PROFINET IO Fieldbus Coupler

2-port; 100 Mbit/s; digital and analog signals



This fieldbus coupler connects to the WAGO-I/O-SYSTEM as a slave of the PROFINET IO, the open Industrial ETHERNET standard for automation.
The fieldbus coupler supports all I/O modules. 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.
This buscoupler can integrate into the application as a PROFINET IO device.
The buscoupler features an integrated 2-port switch, allowing easy line structure creation without requiring any additional network components.
The device name can be assigned via DCP protocol or be adjusted by a DIP switch if the protocol is not supported by the control systems.

Description	Item No.	Pack. Unit
PROFINET IO 100 MBit 2-port	**750-370**	1

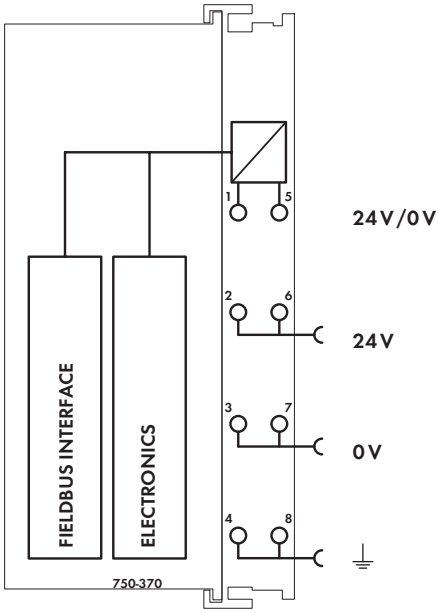
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

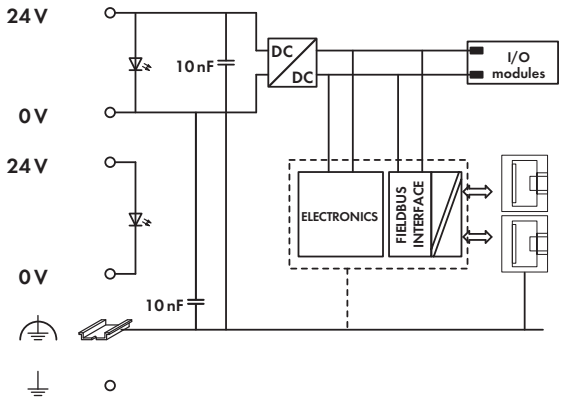
Approvals

Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	limited by PROFINET specification
Transmission medium	Twisted Pair S-UTP 100 Ω cat. 5
Max. length of fieldbus segment	100 m between switch and 750-370; max. length of network limited by PROFINET specification
Baud rate	10/100 Mbit/s
Buscoupler connection	2 x RJ-45
Protocols	PROFINET IO (RT Class 1); Conformance Class B (DCP, SNMP, LLDP); HTTP





Technical Data

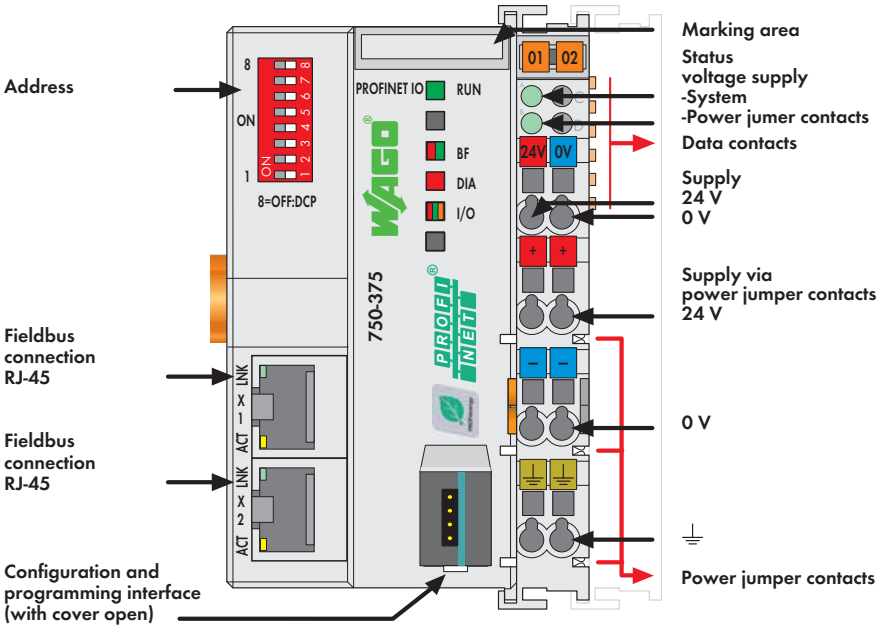
Number of I/O modules	64
with bus extension	128
Max. input process image	320 bytes
Max. output process image	320 bytes
Configuration	via PC
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	189.5 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3

PROFINET IO advanced Fielbus Coupler

2-port switch; 100 Mbit/s; digital, analog and complex signals



The 750-375 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 maximum two IO controllers and one IO supervisor according to preset configurations. The process images may include a mixed arrangement of analog, digital or specialty modules. Analog and specialty module data is sent via words and/or bytes; digital data is sent bit by bit.
The fieldbus coupler operates as an IO 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 set via DIP switch.

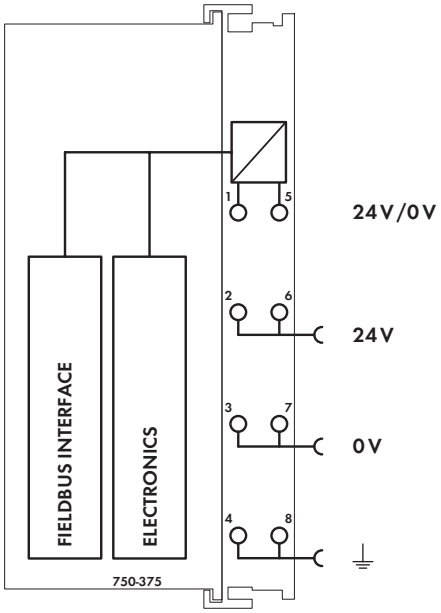
Description	Item No.	Pack. Unit
PROFINET IO adv. 2-Port	**750-375**	1
PROFINET IO adv. 2-Port/T	**750-375/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

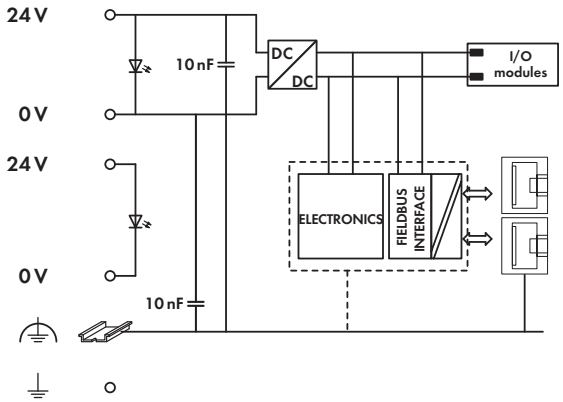
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

Approvals

Conformity marking	CE
Marine applications (versions upon request)	GL
UL 508	

System Data	
No. of couplers connected to Master	limited by PROFINET specification
Transmission medium	Twisted Pair S-UTP 100 Ω cat. 5
Max. length of fieldbus segment	100 m between hub station and 750-375; max. length of network limited by PROFINET specification
Baud rate	10 Mbit/s (ETHERNET protocols), 100 Mbit/s full duplex (PROFINET IO)
Transmission method	100Base-TX
Buscoupler connection	2 x RJ-45
PROFINET IO standard	V2.2 (conformance class C, pending)





Technical Data

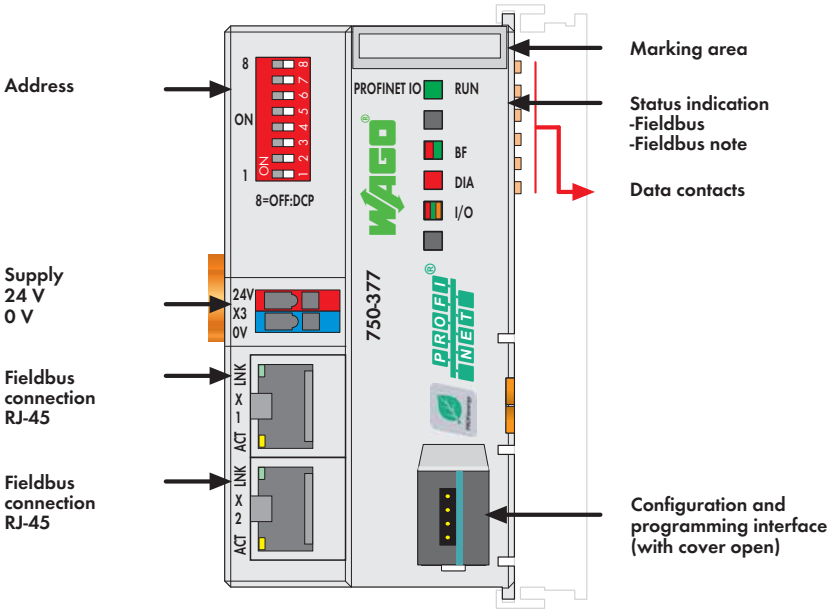
Number of I/O modules	64
with bus extension	250
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	via PC
PROFINET IO features	Integrated 2-port switch;
	Auto-negotiation, Auto-MDIX;
	Isochronous real-time communication
	(pending);
	Transmission clock: 1 ms (RT),
	1, 2, 4 ms (IRT);
	Device replacement without programming
	tool; Shared device
Protocols	Topology detection / LLDP,
	Network diagnostics / SNMP / MIB-2,
	media redundancy / MRP (pending),
	Web server / HTTP
Profiles supported	PROFIsafe V2, PROFIenergy V1.0
ID code	Vendor ID: 0x011D;
	Device ID: 0x02EE;
	Coupler ID: 0x01000177
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	500 mA
Efficiency of the power supply (typ.) at	
nominal load (24 V)	90 %
Internal current consumption (5 V)	450 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	62 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	150.3 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

PROFINET IO advanced ECO Fielbus Coupler

2-port switch; 100 Mbit/s; digital, analog and complex signals



The 750-377 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 IO controller and one IO supervisor according to preset configurations. The process images may include a mixed arrangement of analog, digital or specialty modules. Analog and specialty module data is sent via words and/or bytes; digital data is sent bit by bit.
The fieldbus coupler operates as an IO 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 set via DIP switch.

Description	Item No.	Pack. Unit
PROFINET IO adv. ECO 2-Port	**750-377**	1
PROFINET IO adv. ECO 2-Port/T	**750-377/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

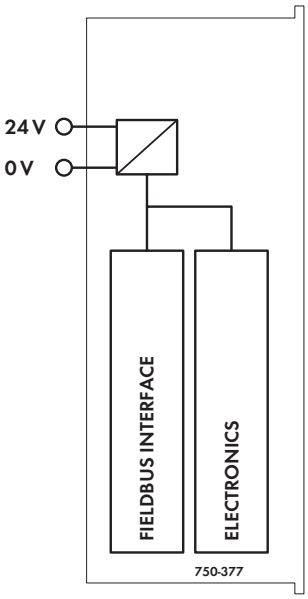
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

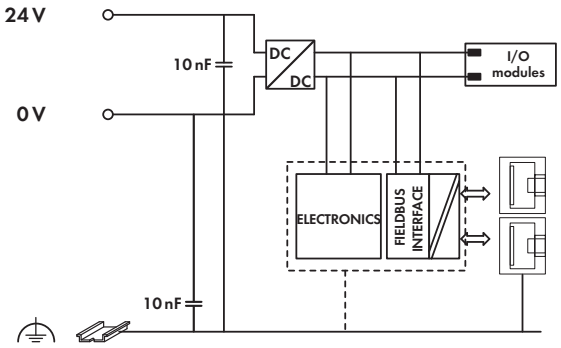
Approvals

Conformity marking	CE
Marine applications (versions upon request)	GL
UL 508	

System Data

No. of couplers connected to Master	limited by PROFINET specification
Transmission medium	Twisted Pair S-UTP 100 Ω cat. 5
Max. length of fieldbus segment	100 m between hub station and 750-377; max. length of network limited by PROFINET specification
Baud rate	10 Mbit/s (ETHERNET protocols), 100 Mbit/s full duplex (PROFINET IO)
Transmission method	100Base-TX
Buscoupler connection	2 x RJ-45
PROFINET IO standard	V2.2 (conformance class C, pending)





Technical Data

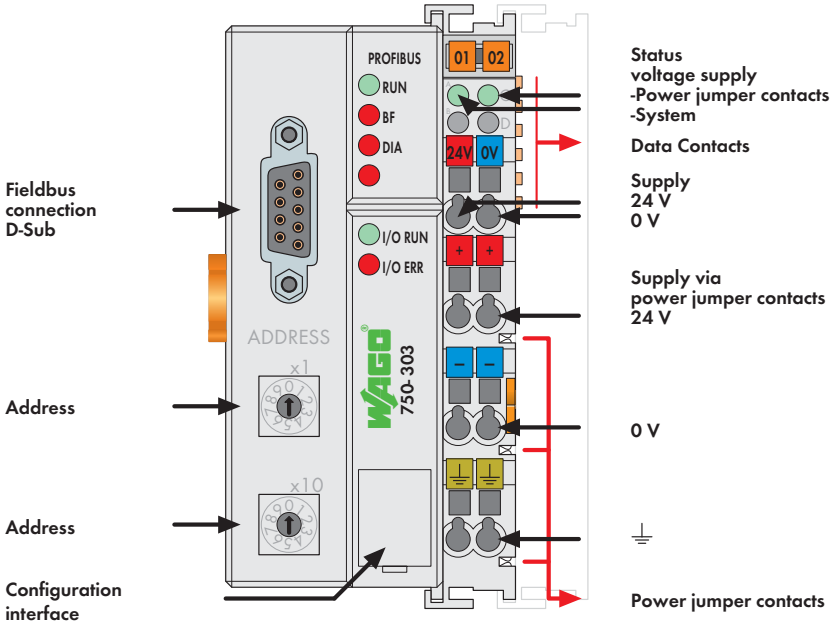
Number of I/O modules	64
Max. input process image	256 bytes
Max. output process image	256 bytes
Configuration	via PC
PROFINET IO features	Integrated 2-port switch;
	Auto-negotiation, Auto-MDIX;
	Isochronous real-time communication
	(pending);
	Transmission clock: 1 ms (RT),
	1, 2, 4 ms (IRT);
	Device replacement without programming
	tool
Protocols	Topology detection / LLDP,
	Network diagnostics / SNMP / MIB-2,
	media redundancy / MRP (pending),
	Web server / HTTP
Profiles supported	PROFIsafe V2, PROFIenergy V1.0
ID code	Vendor ID: 0x011D;
	Device ID: 0x02EE;
	Coupler ID: 0x01000179
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	280 mA
Efficiency of the power supply (typ.) at	
nominal load (24 V)	90 %
Internal current consumption (5 V)	450 mA
Total current for I/O modules (5 V)	700 mA
Isolation	500 V system/supply

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 14
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	107.1 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

PROFIBUS DP/FMS Fieldbus Coupler

12 Mbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the PROFIBUS 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.

PROFIBUS 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 PROFIBUS fieldbus to the PLC, PC or NC for further processing, and received from the field via PROFIBUS.

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.

When implementing new installations, please consider 750-333 PROFIBUS DP fieldbus coupler with extended functions.
Notice: GSD files required!

Description	Item No.	Pack. Unit
PROFIBUS DP/FMS 12 MBd	**750-303**	1

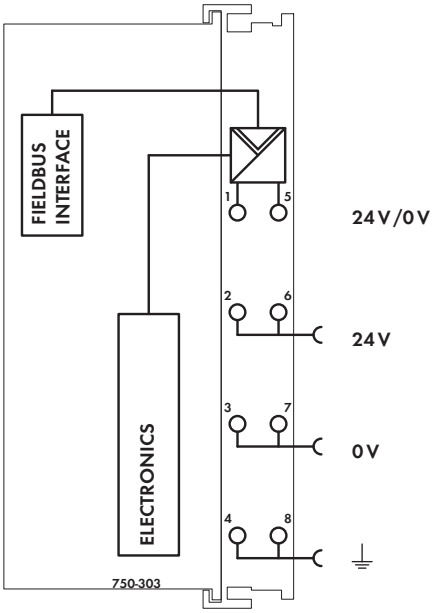
Accessories		Item No.	Pack. Unit
GSD files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

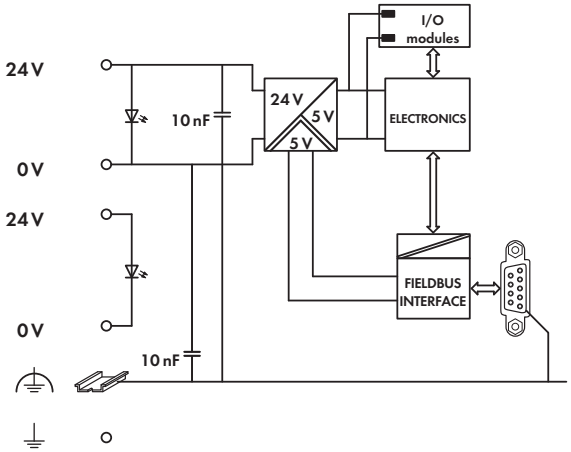
Standards and Approvals

Standard	EN 50170
Certification	PNO
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	96 with repeater
Max. no. of I/O points	approx. 6000 (depends on master)
Transmission medium	Cu cable acc. to EN 50170
Max. length of fieldbus segment	100 m ... 1200 m
	(depends on baud rate/cable)
Baud rate	9.6 Kbaud ... 12 Mbaud
Transmission time	typ. 1 ms (10 couplers; 32 digital I/Os per
	coupler at 12 Mbaud) max. 3.3 ms
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

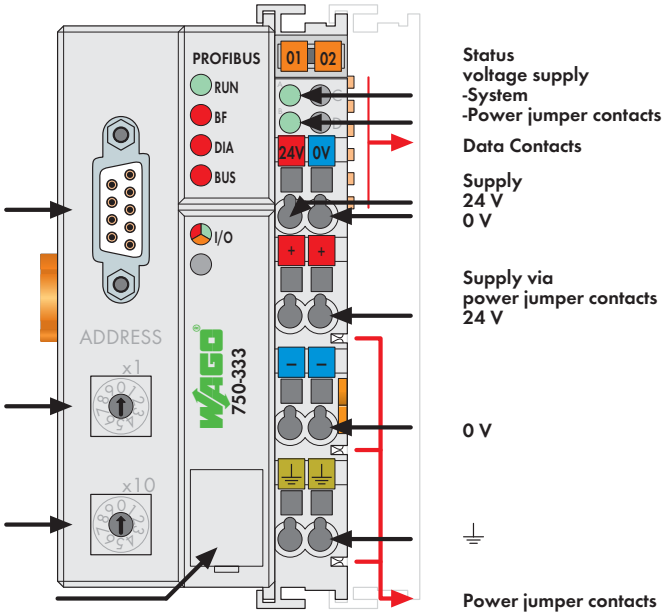
Number of I/O modules	64
Max. input process image	128 bytes
Max. output process image	128 bytes
	up version 05xx, max. 64 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	185.2 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

PROFIBUS DP/V1 Fieldbus Coupler

12 Mbaud; digital and analog signals



This buscoupler interfaces the I/O modules of the WAGO-I/O-SYSTEM to PROFIBUS DP.

When initializing, the buscoupler determines the module structure of the node, to create the process image in PROFIBUS. In order to optimize addresses, the I/O modules with a bit width smaller than 8 are grouped in one byte.

Notice: GSD files required

It is furthermore possible to deactive I/O modules and to modify the image of the node according to the connected signals without having to modify the existing application.

The diagnosis concept is based on diagnostics according to the EN 50170 standard. Therefore the programming of modules is not necessary to interpret the diagnostic information from each manufacturer.

Description	Item No.	Pack. Unit
PROFIBUS DP/V1 12MBd	**750-333**	1
PROFIBUS DP/V1/T	**750-333/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

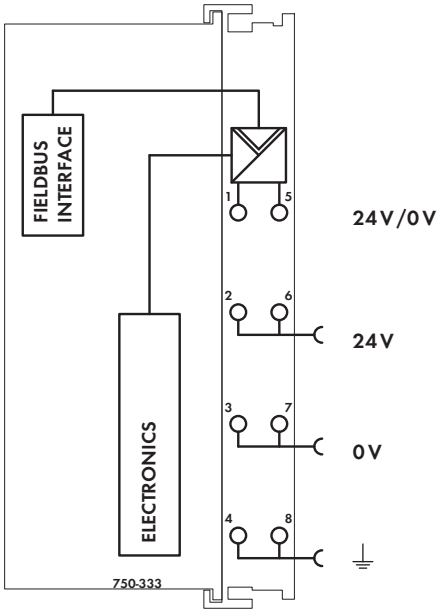
Accessories		Item No.	Pack. Unit
GSD files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

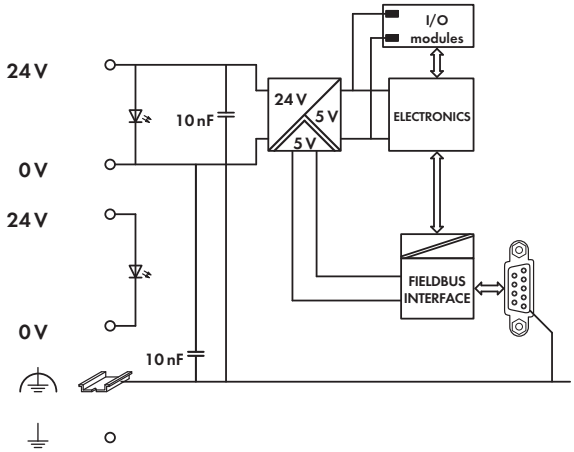
Standards and Approvals

Standard	EN 50170
Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	96 with repeater
Max. no. of I/O points	approx. 6000 (depends on master)
Transmission medium	Cu cable acc. to EN 50170
Max. length of fieldbus segment	100 m ... 1200 m
	(depends on baud rate/cable)
Baud rate	9.6 Kbaud ... 12 Mbaud
Transmission time	typ. 1 ms (10 couplers; 32 digital I/Os
	per coupler at 12 Mbaud) max. 3.3 ms
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

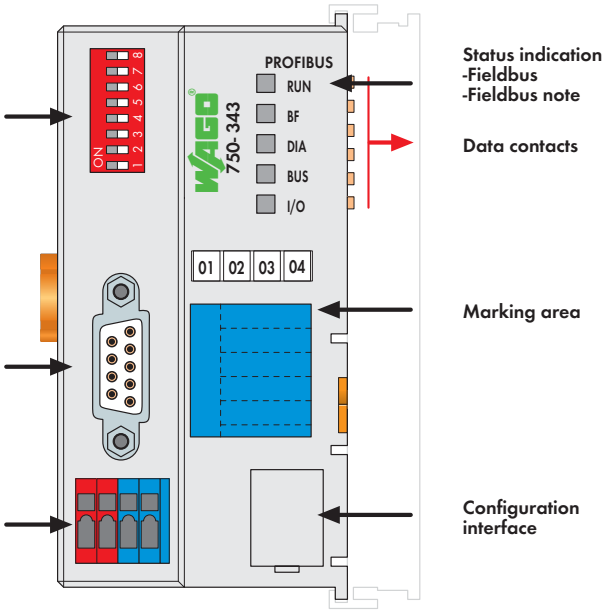
Number of I/O modules	63
Max. input process image	244 bytes
Max. output process image	244 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	200 mA
Total current for I/O modules (5 V)	1800 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	183.1 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

PROFIBUS DP ECO Fieldbus Coupler

12 Mbaud; digital and analog signals



The ECO fieldbus coupler is designed for applications with a reduced scale I/O requirement. Using digital only process data or small amounts of analogs, while retaining all of the choice that's offered by the Series 750 I/O.

The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.

When initializing, the buscoupler determines the module structure of the node, to create the process image in PROFIBUS. In order to optimize addresses, the I/O modules with a bit width smaller than 8 are grouped in one byte.

Notice: GSD files required

It is furthermore possible to deactive I/O modules and to modify the image of the node according to the connected signals without having to modify the existing application.

The diagnosis concept is based on diagnostics according to the EN 50170 standard. Therefore the programming of modules is not necessary to interpret the diagnostic information from each manufacturer.

Description	Item No.	Pack. Unit
PROFIBUS DP ECO 12 MBd	**750-343**	1

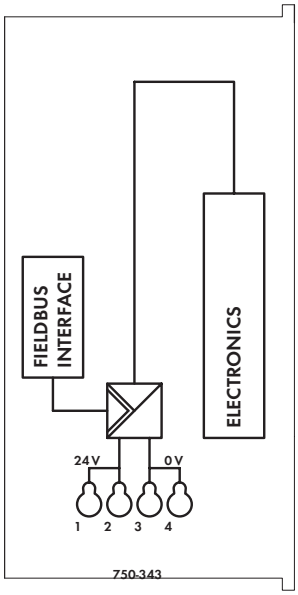
Accessories		Item No.	Pack. Unit
GSD files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

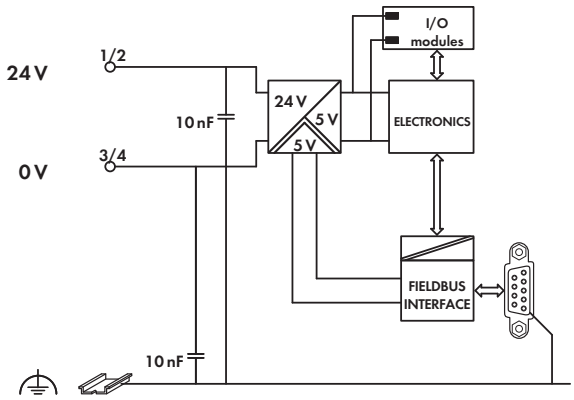
Standards and Approvals

Standard	EN 50170
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	125 with repeater
Max. no. of I/O points	approx. 6000 (depends on master)
Transmission medium	Cu cable acc. to EN 50170
Max. length of fieldbus segment	100 m ... 1200 m (depends on baud rate/cable)
Baud rate	9.6 Kbaud ... 12 Mbaud
Transmission time	typ. 1 ms (10 couplers; 32 digital I/Os per coupler at 12 Mbaud) max. 3.3 ms
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

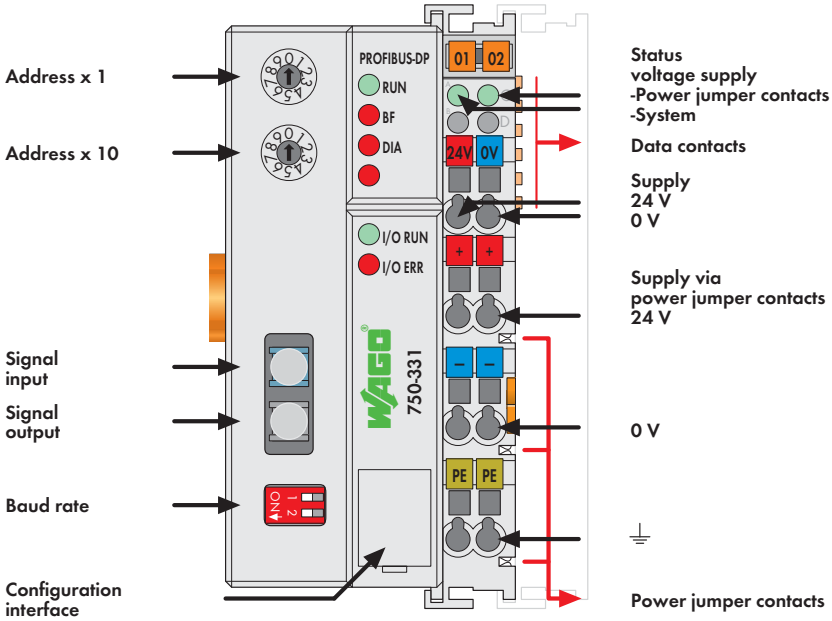
Number of I/O modules	63
Max. input process image	32 bytes
Max. output process image	32 bytes
Configuration	via PC or PLC
Power supply	24 VDC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	260 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 16
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	110.4 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

PROFIBUS DP Fieldbus Coupler

1.5 Mbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the PROFIBUS DP 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.

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 PROFIBUS DP fieldbus to the PLC, PC or NC for further processing, and received from the field via PROFIBUS DP.

Notice: GSD files required

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.

For the operation of a PROFIBUS DP coupler with fiber optic cable connection, an interface module is also necessary to transfer RS-485 on a fiber optic ring. A subring can contain up to 10 other fiber optic modules. The baud rate is set via two DIP switches on the buscoupler.

Description	Item No.	Pack. Unit
PROFIBUS DP 1.5 MBd / Opt. Fiber	**750-331**	1

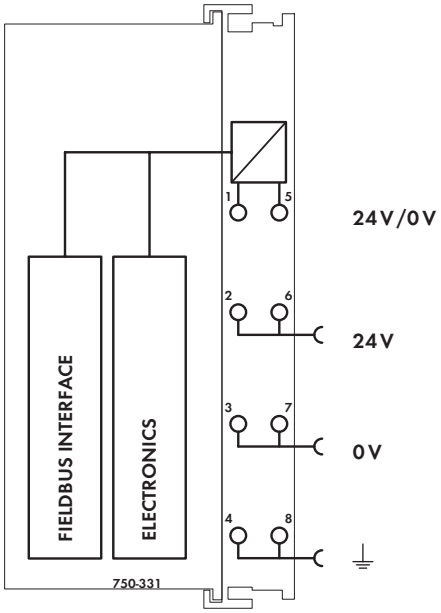
Accessories		Item No.	Pack. Unit
GSD files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

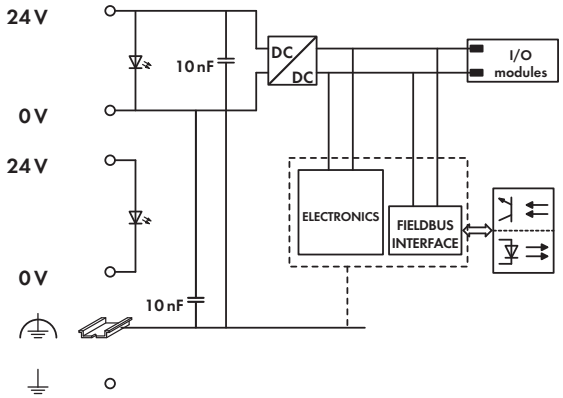
Standards and Approvals

Standard	EN 50170
Conformity marking	CE
Korea Certification	
UL 508	
DEKRA 11 ATEX 0203 X	II 3 G Ex nA II T4

System Data

No. of couplers connected to Master	10 in the subring
Transmission medium	APF (plastic) fiber (1000µm)
Max. length of fieldbus segment	1 m ... 25 m
Topology	Subring, single-fiber ring
Baud rate	93.75 Kbaud ... 1500 Kbaud
Buscoupler connection	HP Simplex fiber optic plug (included)





Technical Data

Number of I/O modules	64
Max. input process image	128 bytes
Max. output process image	128 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

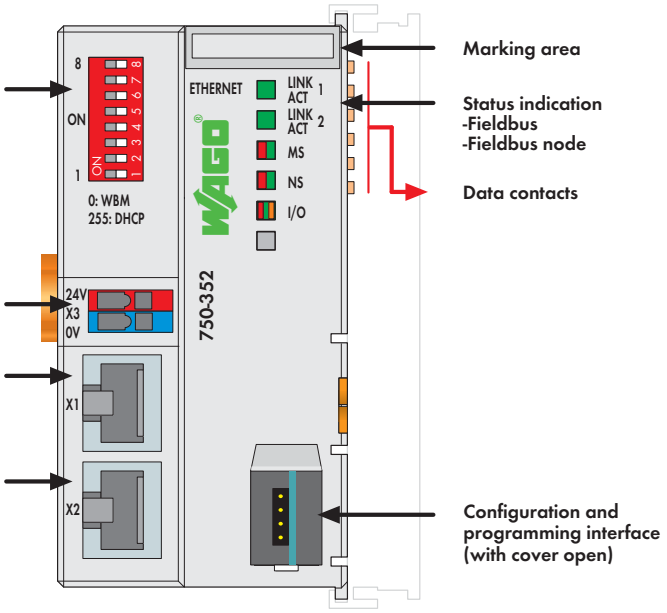
Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	187 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

DIP Switches

Baud rate	93.75 kBd / S1 = off; S2 = off
	187.5 kBd / S1 = off; S2 = on
	500 kBd / S1 = on; S2 = off
	1500 kBd / S1 = on; S2 = on

ETHERNET Fieldbus Coupler

10/100 Mbit/s; digital and analog signals



The 750-352 ETHERNET Fieldbus Coupler connects ETHERNET to the modular WAGO-I/O-SYSTEM.

The fieldbus coupler 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.

Two ETHERNET interfaces and an integrated switch allow the fieldbus to be wired in a line topology. This eliminates additional network devices such as switches or hubs. Both interfaces support Auto-Negotiation and Auto-MDI(X).

The DIP switch configures the last byte of the IP address and may be used for IP address assignment (DHCP, BootP, static).

The coupler is designed for fieldbus communication in both Ethernet/IP and MODBUS networks. It also supports a wide variety of standard ETHERNET protocols (e.g., HTTP, BootP, DHCP, DNS, SNMP, FTP).
An integrated Web server provides configuration and status information to the coupler.

The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.

Description	Item No.	Pack. Unit
ETHERNET Coupler	**750-352**	1

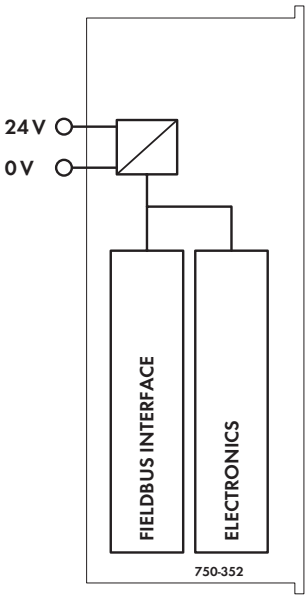
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

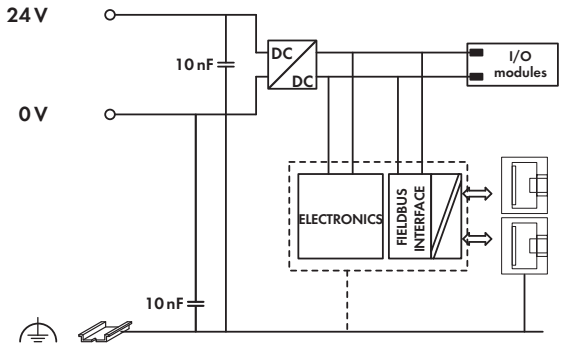
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	limited by ETHERNET specification
Transmission medium	Twisted Pair S-UTP 100 Ω, Cat 5; Max. line length: 100 m
Baud rate	10/100 Mbit/s
Transmission performance	Class D acc. to EN 50173
Buscoupler connection	2 x RJ-45
Protocols	EtherNet/IP, MODBUS/TCP (UDP), HTTP, BootP, DHCP, DNS, FTP, SNMP





Technical Data

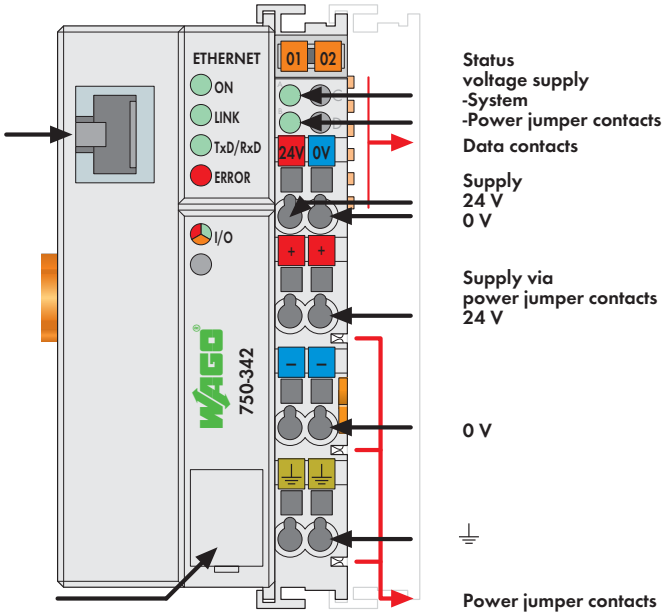
Number of I/O modules	64
with bus extension	250
Max. input process image	1020 words
Max. output process image	1020 words
Configuration	via PC
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	280 mA
Efficiency of the power supply (typ.) at	
nominal load (24 V)	90 %
Internal current consumption (5 V)	450 mA
Total current for I/O modules (5 V)	700 mA
Isolation	500 V system/supply

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 14
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	112 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

ETHERNET TCP/IP Fieldbus Coupler

10 Mbit/s; digital and analog signals



The ETHERNET TCP/IP fieldbus coupler supports a number of network protocols to send process data via ETHERNET TCP/IP. By observing the relevant IT standards, connection to existing local or global networks (LAN, Internet) is possible without any problem.
Using ETHERNET as a fieldbus makes universal data transmission between the factory and the office possible. Moreover, the ETHERNET TCP/IP fieldbus coupler offers remote maintenance, i.e. processes can be controlled regardless of the location.
Process data exchange is done using the MODBUS/TCP protocol. The buscoupler supports all I/O modules and automatically configures, creating a local process image.
The HTML pages that are stored in the fieldbus coupler allow access to information on configuration, status, or I/O data of the ETHERNET TCP/IP fieldbus coupler. Only a standard WEB browser is required.
Dynamic configuration of the IP addresses via a BootP server provides a flexible and easy way to configure the network.

Description	Item No.	Pack. Unit
ETHERNET TCP/IP 10 MBit	**750-342**	1

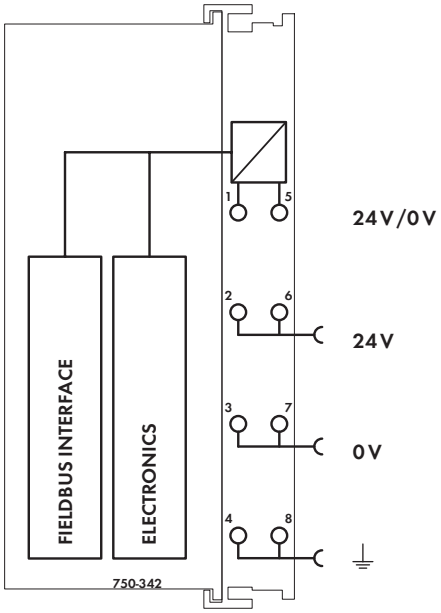
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

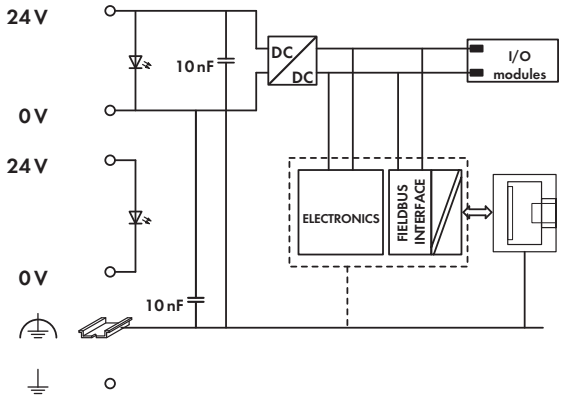
Approvals

Conformity marking	CE
Korea Certification	KC
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
cULus UL 508	
cULus ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	limited by ETHERNET specification
Transmission medium	Twisted Pair S-UTP 100 Ω cat. 5
Max. length of fieldbus segment	100 m between hub station and 750-342; max. length of network limited by ETHERNET specification
Baud rate	10 Mbit/s
Buscoupler connection	RJ-45
Protocols	MODBUS/TCP, HTTP, BootP, MODBUS/UDP





Technical Data

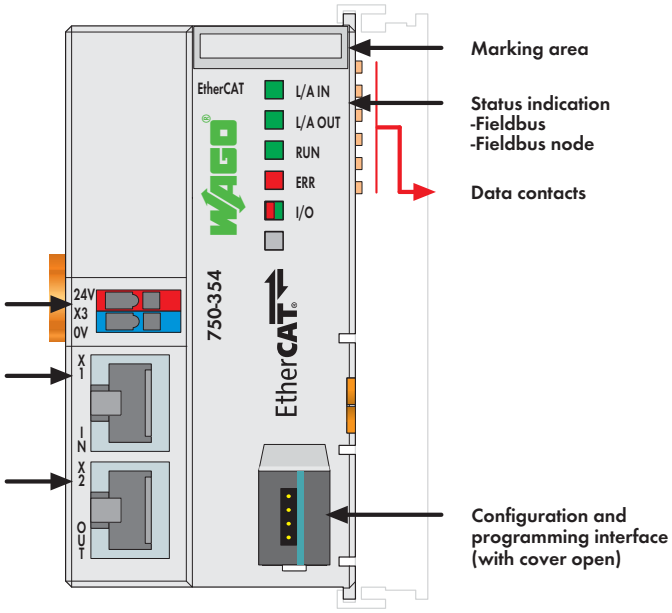
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Max. number of socket connections	1 HTTP; 3 MODBUS/TCP
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	200 mA
Total current for I/O modules (5 V)	1800 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	197 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

EtherCAT Fieldbus Coupler

100 Mbit/s; digital and analog signals



The 750-354 EtherCAT Fieldbus Coupler connects EtherCAT to the modular WAGO-I/O-SYSTEM.
The fieldbus coupler 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.

The "upper" EtherCAT interface connects the coupler to the network.
The "lower" RJ-45 socket connects additional EtherCAT devices to the same line.

EtherCAT® (Ethernet Control Automation Technology) is a real-time ETHERNET solution designed for industrial automation applications and characterized by high performance, flexible topology and simple configuration. With EtherCAT®, the costly ETHERNET star topology can be replaced with a simple line or tree structure.

Description	Item No.	Pack. Unit
EtherCAT® Coupler	**750-354**	1

Accessories	Item No.	Pack. Unit
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

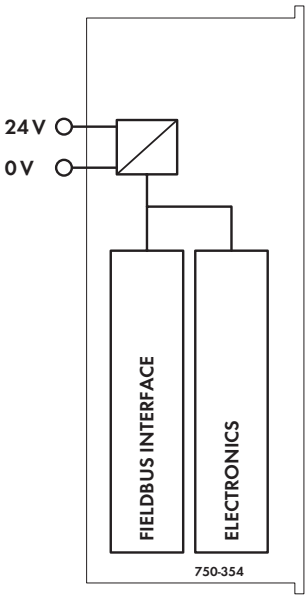
Approvals

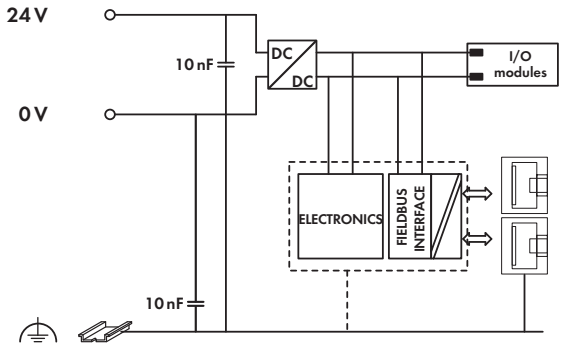
Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	limited by EtherCAT specification
Transmission medium	Shielded twisted pair
	S/FTP, F/FTP or SF/FTP;
	100 Ω, Cat 6
Baud rate	100 Mbit/s
Transmission performance	Class D acc. to EN 50173-1
Buscoupler connection	2 x RJ-45
Protocols	EtherCAT (direct mode)

EtherCAT® is regristered trademark and patented technology, licensed by Beckhoff Automation GmbH, Germany.





Technical Data

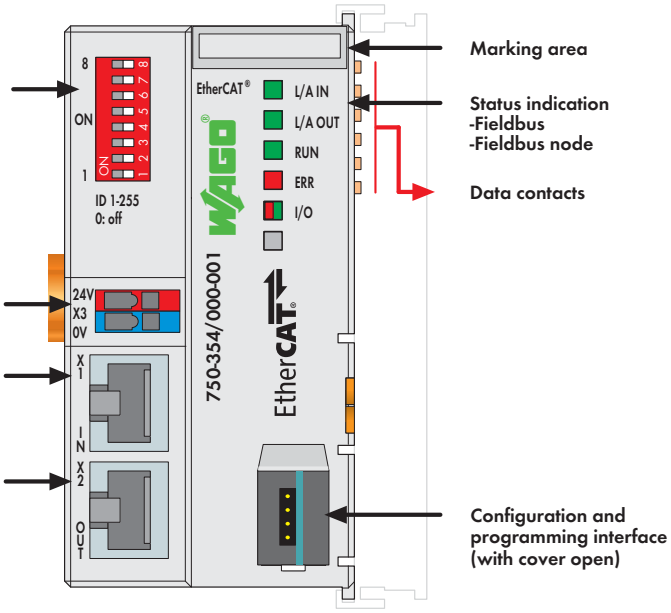
Number of I/O modules	64
Max. input process image	1024 bytes
Max. output process image	1024 bytes
Configuration	via PC
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	250 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	85 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	700 mA
Isolation	500 V system/supply

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 14
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	65 x 50 x 97
	Height from upper-edge of DIN 35 rail
Weight	152 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-3

EtherCAT® Fieldbus Coupler, ID Switch

100 Mbit/s; digital and analog signals



The 750-354 EtherCAT® Fieldbus Coupler connects EtherCAT® to the modular WAGO-I/O-SYSTEM.
The fieldbus coupler 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.

The upper EtherCAT® interface connects the coupler to the network. The lower RJ-45 socket connects additional EtherCAT® devices to the same line.

EtherCAT® (Ethernet Control Automation Technology) is a real-time ETHERNET solution designed for industrial automation applications and characterized by high performance, flexible topology and simple configuration. With EtherCAT®, the costly ETHERNET star topology can be replaced with a simple line or tree structure.
The address selection switch is used to set an Explicit Device ID (EDI), which allows a fixed address to be assigned to an EtherCAT® slave.

Description	Item No.	Pack. Unit
EtherCAT® Fieldbus Coupler, ID Switch	**750-354/000-001**	1

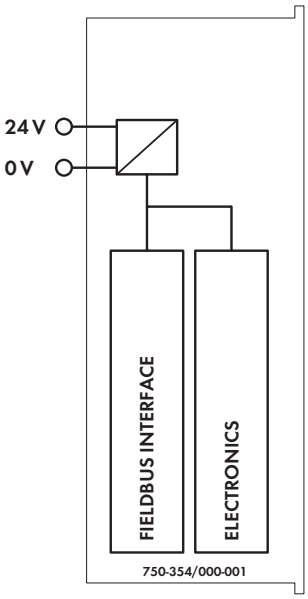
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

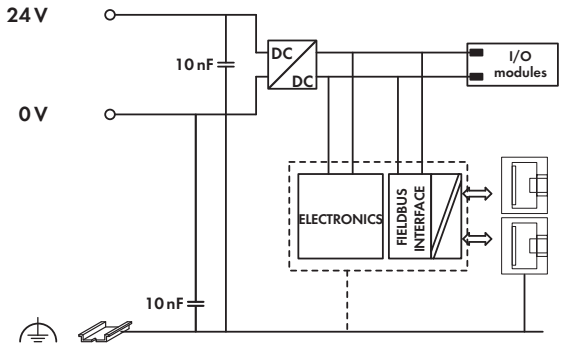
Approvals

Conformity marking	CE
Marine applications	GL
cULus UL 508	

System Data

No. of couplers connected to Master	limited by EtherCAT specification
Transmission medium	Shielded twisted pair
	S/FTP, F/FTP or SF/FTP;
	100 Ω, Cat 6
Baud rate	100 Mbit/s
Transmission performance	Class D acc. to EN 50173-1
Buscoupler connection	2 x RJ-45
Protocols	EtherCAT (direct mode)





Technical Data

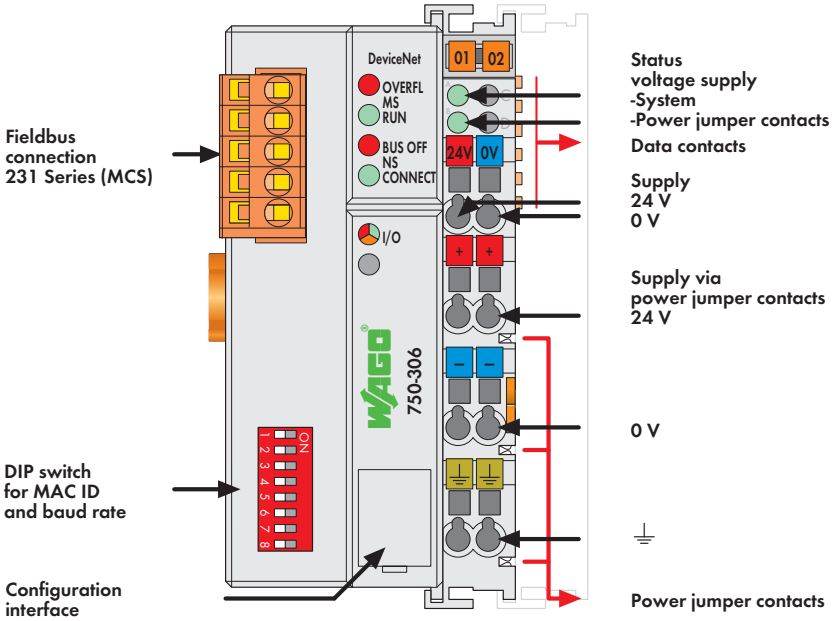
Number of I/O modules	64
Max. input process image	1024 bytes
Max. output process image	1024 bytes
Configuration	via PC
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	250 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	85 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	700 mA
Isolation	500 V system/supply

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	65 x 50 x 97
	Height from upper-edge of DIN 35 rail
Weight	152 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications

DeviceNet Fieldbus Coupler

125 ... 500 Kbaud; digital and analog signals



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).

Notice: EDS files required

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.

Description	Item No.	Pack. Unit
DeviceNet, w/ status byte	**750-306**	1
DeviceNet (only function with digital modules)	**750-306/000-005**	1
DeviceNet (without buskoppler status byte)	**750-306/000-006**	1

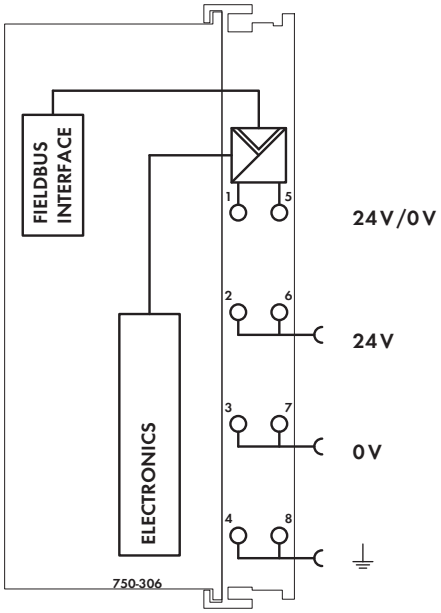
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

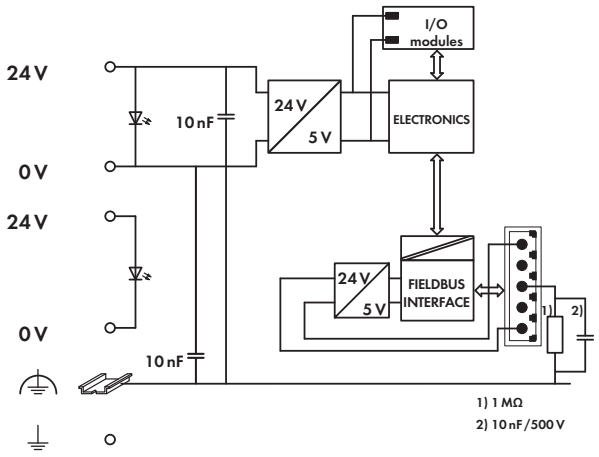
Approvals

Certification	ODVA
Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	64 with scanner
Max. no. of I/O points	approx. 6000 (depends on master)
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
Max. length of bus line	100 m ... 500 m
	(depends on baud rate/cable)
Baud rate	125 Kbaud, 250 Kbaud, 500 Kbaud
Buscoupler connection	5-pole male connector, 231 Series (MCS),
	female connector 231-305/ 010-000/
	050-000 (included)





Technical Data

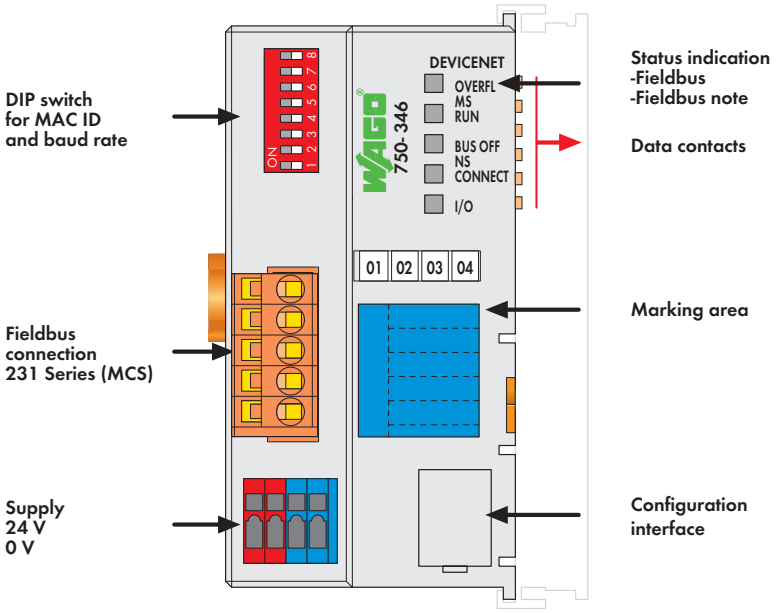
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	via PC or PLC
DeviceNet features	Polled I/O message connection
	Strobed I/O message connection
	Change of state
	Cyclic message connection
	Group 2 only, slave
Power supply	24 V DC (-25 % ... +30 %)
Current consumption	
via power supply terminal	< 500 mA / 24 V
via DeviceNet interface	< 120 mA / 11 V
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	200 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

DeviceNet ECO Fieldbus Coupler

125 ... 500 Kbaud; digital and analog signals



The ECO fieldbus coupler is designed for applications with a reduced scale I/O requirement. Using digital only process data or small amounts of analogs, while retaining all of the choice that's offered by the Series 750 I/O.

The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.

The Device**Net**™ buscoupler automatically configures, creating a local process image which may include analog, digital or specialty modules. 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.

Notice: EDS files required

Description	Item No.	Pack. Unit
DeviceNet ECO	**750-346**	1

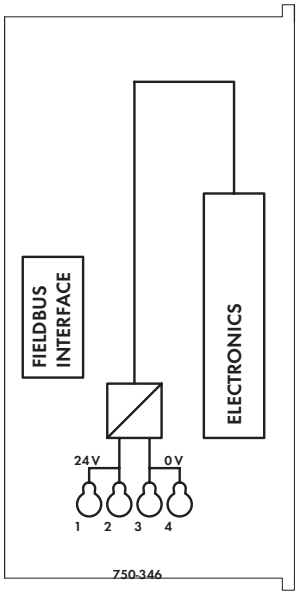
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

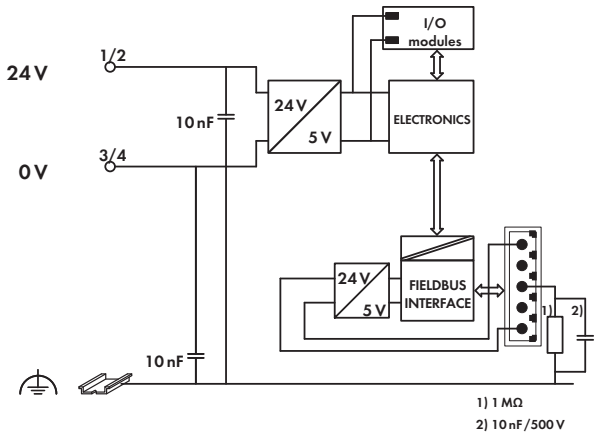
Approvals

Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	64 with scanner
Max. no. of I/O points	approx. 6000 (depends on master)
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
Max. length of bus line	100 m ... 500 m
	(depends on baud rate/cable)
Baud rate	125 Kbaud, 250 Kbaud, 500 Kbaud
Buscoupler connection	5-pole male connector, 231 Series (MCS),
	female connector 231-305/ 010-000/
	050-000 (included)





Technical Data

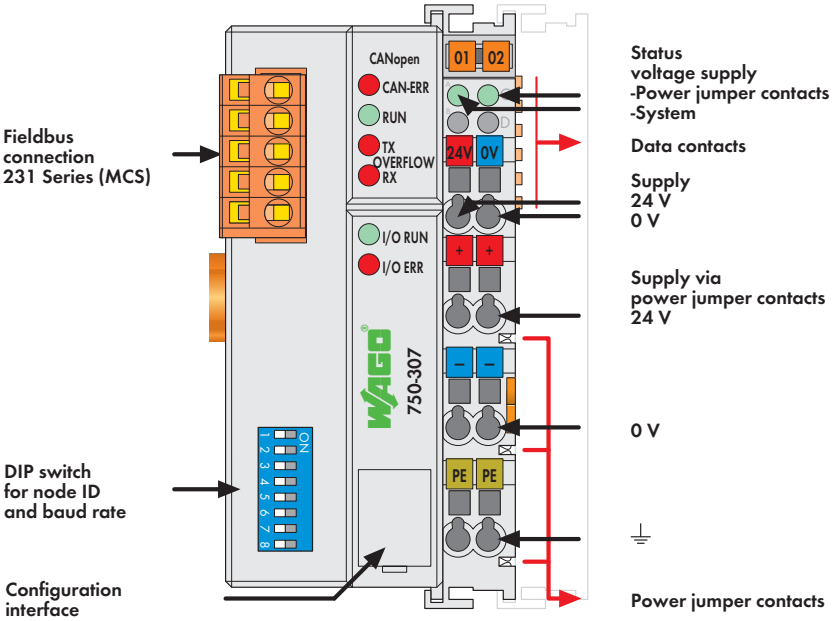
Number of I/O modules	64
Max. input process image	32 bytes
Max. output process image	32 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-15 % ... +20 %)
Current consumption	
via power supply terminal (typ.) at	
nominal load (24 V)	260 mA
via DeviceNet interface	< 120 mA / 11 V
Efficiency of the power supply (typ.) at	
nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 14
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	115 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

CANopen Fieldbus Coupler

10 Kbaud ... 1 Mbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the CANopen fieldbus. The module data is transmitted using PDOs and SDOs.

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.

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 CANopen fieldbus to the PLC, PC or NC for further processing, and received from the field via CANopen.

The data of the analog modules is stored in the PDOs 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 also mapped in the PDOs. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.

All entries of the object dictionary can be mapped - as the user likes - in the 5 Rx PDOs and 5 Tx PDOs.

The complete input and output process image can be transmitted using SDOs.

When implementing new installations, please consider 750-337 fieldbus coupler with extended functions. Notice: EDS files required!

Description	Item No.	Pack. Unit
CANopen	**750-307**	1

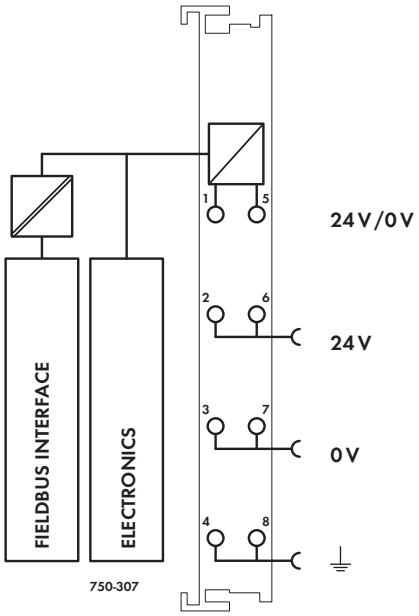
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

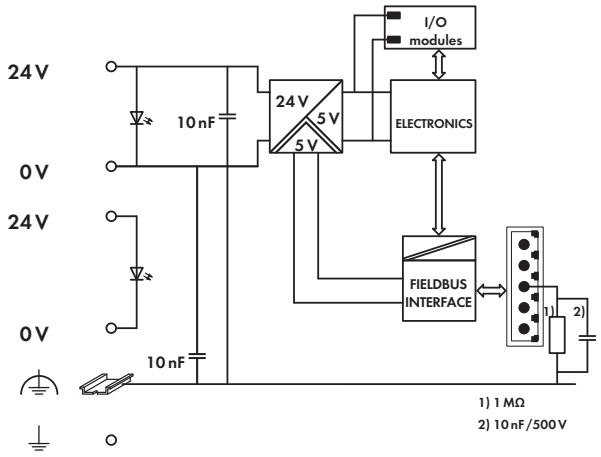
Approvals

Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm²
Max. length of bus line	30 m ... 1000 m
	(depends on baud rate/cable)
Baud rate	10 Kbaud ... 1 Mbaud
Buscoupler connection	5-pole male connector, 231 Series (MCS),
	female connector 231-305/ 010-000
	(included)





Technical Data

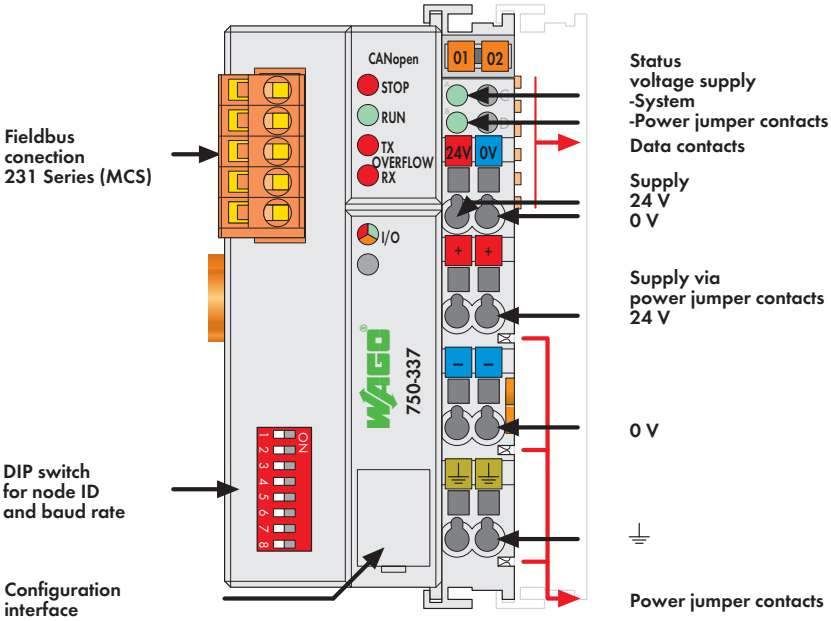
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	via PC or PLC
No. of PDOs	5 Tx / 5 Rx
No. of SDOs	2 server SDOs
Communication profile	DS-301 V3.0
Device profile	DS-401 V1.4
COB ID distribution	SDO, standard
Node ID distribution	DIP switches
Other CANopen features	NMT slave
	Minimum boot-up
	Variable PDO mapping
	Emergency message
	Life guarding
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	200 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

CANopen Fieldbus Coupler

10 Kbaud ... 1 Mbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the CANopen fieldbus. The module data is transmitted using PDOs and SDOs.

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.

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 CANopen fieldbus to the PLC, PC or NC for further processing, and received from the field via CANopen.

The data of the analog modules is stored in the PDOs 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 also mapped in the PDOs. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.

All entries of the object dictionary can be mapped - as the user likes - in the 32 Rx PDOs and 32 Tx PDOs.
The complete input and output process image can be transmitted using SDOs. "Spacer modules" can be set via software.

Notice: EDS files required

Description	Item No.	Pack. Unit
CANopen MCS	**750-337**	1
CANopen MCS/T	**750-337/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

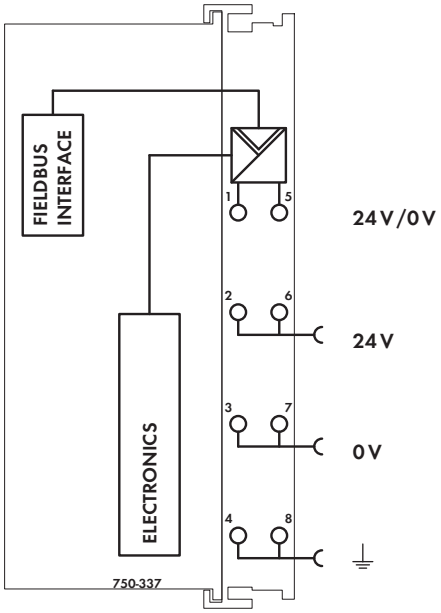
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

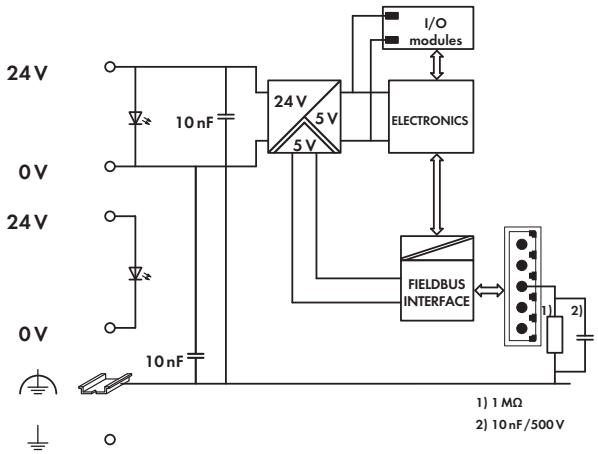
Approvals

Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm²
Max. length of bus line	30 m ... 1000 m (depends on baud rate/cable)
Baud rate	10 Kbaud ... 1 Mbaud
Buscoupler connection	5-pole male connector, 231 Series (MCS), female connector 231-305/ 010-000 (included)





Technical Data

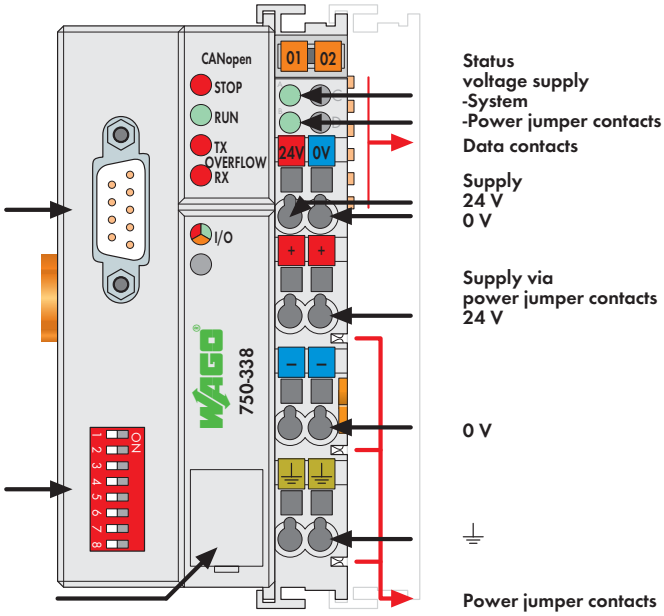
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	via PC or PLC
No. of PDOs	32 Tx / 32 Rx
No. of SDOs	2 server SDOs
Communication profile	DS-301 V4.1
Device profile	DS 401 V2.0
	Marginal check
	Edge-triggered PDOs
	Programmable error response
COB ID distribution	SDO, standard
Node ID distribution	DIP switches
Other CANopen features	NMT slave
	Minimum boot-up
	Variable PDO mapping
	Emergency message
	Life guarding
	Configuration of virtual modules
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	220 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

CANopen Fieldbus Coupler D-Sub

10 Kbaud ... 1 Mbaud; digital and analog signals



This buscoupler connects the WAGO I/O SYSTEM as a slave to the CANopen fieldbus.
The module data is transmitted using PDOs and SDOs.
The buscoupler is capable of supporting all bus modules. 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 packed into bytes.
CANopen allows the storing of 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 CANopen fieldbus to the PLC, PC or NC for further processing, and received from the field via CANopen.
The data of the analog modules is stored in the PDOs 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 also mapped in the PDOs. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.
All entries of the object dictionary can be mapped - as the user likes - in the 32 Rx PDOs and 32 Tx PDOs.
The complete input and output process image can be transmitted using SDOs.
"Spacer modules" can be set via software.

Notice: EDS files required

Description	Item No.	Pack. Unit
CANopen D-Sub	**750-338**	1

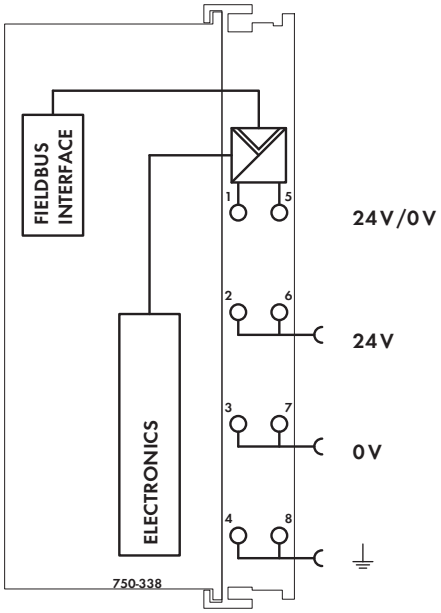
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

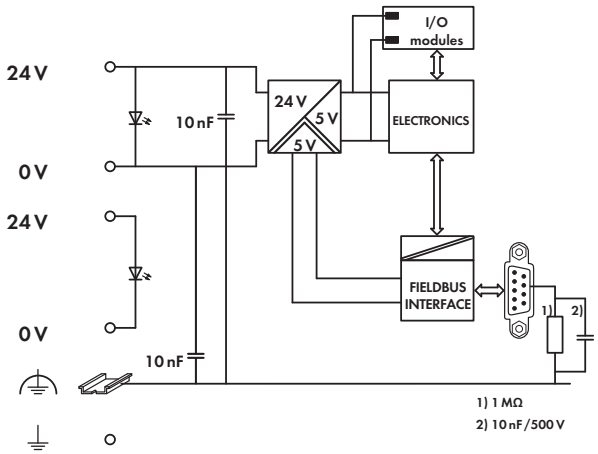
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	BV, GL, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm²
Max. length of bus line	30 m ... 1000 m (depends on baud rate/cable)
Baud rate	10 Kbaud ... 1 Mbaud
Buscoupler connection	1 x D-Sub 9; plug





Technical Data

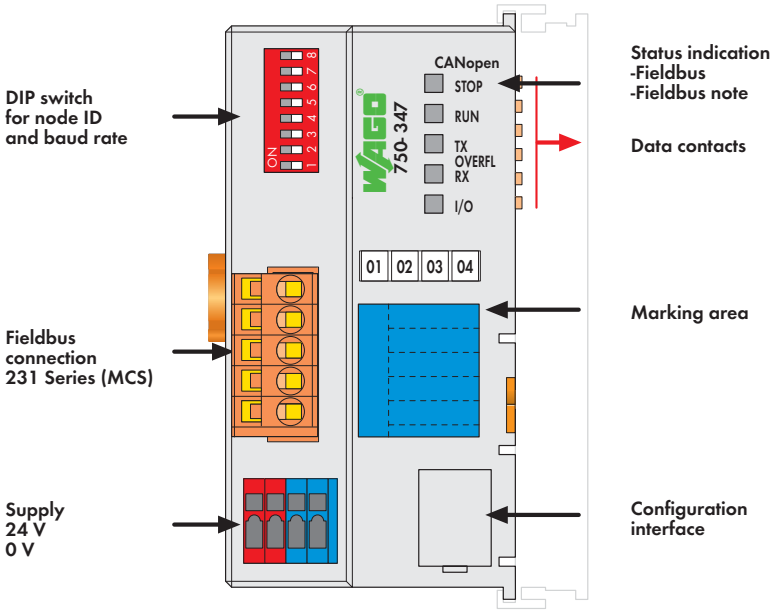
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	via PC or PLC
No. of PDOs	32 Tx / 32 Rx
No. of SDOs	2 server SDOs
Communication profile	DS-301 V4.1
Device profile	DS 401 V2.0
	Marginal check
	Edge-triggered PDOs
	Programmable error response
COB ID distribution	SDO, standard
Node ID distribution	DIP switches
Other CANopen features	NMT slave
	Minimum boot-up
	Variable PDO mapping
	Emergency message
	Life guarding
	Configuration of virtual modules
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	200 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

CANopen ECO Fieldbus Coupler MCS

10 Kbaud ... 1 Mbaud; digital and analog signals



The ECO fieldbus coupler is designed for applications with a reduced scale I/O requirement. Using digital only process data or small amounts of analogs, while retaining all of the choice that's offered by the Series 750 I/O.
The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.
The CANopen bus coupler is capable of supporting all I/O modules and automatically configures, creating a local process image.
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 CANopen fieldbus to the PLC, PC or NC for further processing, and received from the field via CANopen.

The data of the analog modules is stored in the PDOs 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 also mapped in the PDOs. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.

All entries of the object dictionary can be mapped - as the user likes - in the 5 Rx PDOs and 5 Tx PDOs.

The complete input and output process image can be transmitted using SDOs. "Spacer modules" can be set via software.

Notice: EDS files required

Description	Item No.	Pack. Unit
CANopen ECO MCS	**750-347**	1

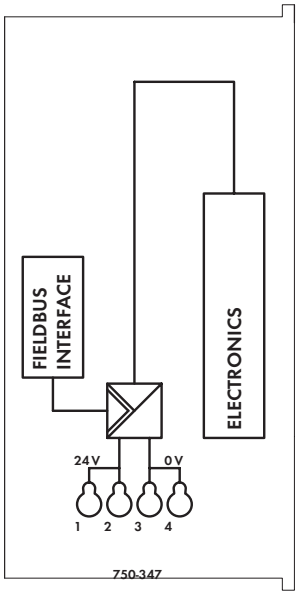
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

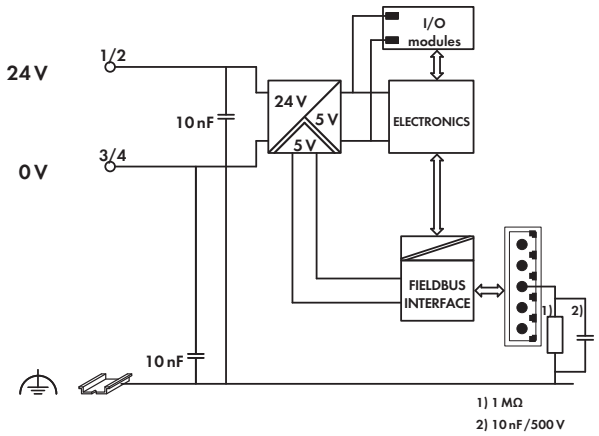
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm²
Max. length of bus line	30 m ... 1000 m
	(depends on baud rate/cable)
Baud rate	10 Kbaud ... 1 Mbaud
Buscoupler connection	5-pole male connector, 231 Series (MCS),
	female connector 231-305/ 010-000
	(included)





Technical Data

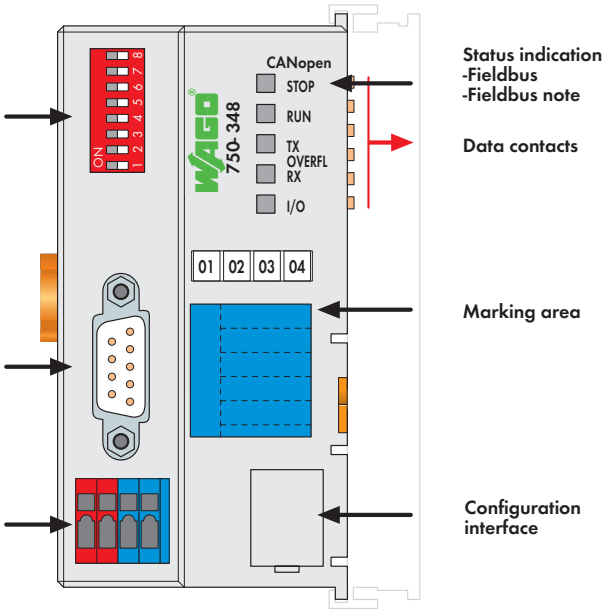
Number of I/O modules	64
Max. input process image	32 bytes
Max. output process image	32 bytes
Configuration	via PC or PLC
No. of PDOs	5 Tx / 5 Rx
No. of SDOs	1 server SDO
Communication profile	DS-301 V4.1
Device profile	DS-401 V2.0
	Programmable error response
COB ID distribution	SDO, standard
Node ID distribution	DIP switches
Other CANopen features	NMT slave
	Minimum boot-up
	Variable PDO mapping
	Emergency message
	Life guarding
Power supply	24 VDC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	260 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 16
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	135 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

CANopen ECO Fieldbus Coupler D-Sub

10 Kbaud ... 1 Mbaud; digital and analog signals



The ECO fieldbus coupler is designed for applications with a reduced scale I/O requirement. Using digital only process data or small amounts of analogs, while retaining all of the choice that's offered by the Series 750 I/O.
The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.
The CANopen bus coupler is capable of supporting all I/O modules and automatically configures, creating a local process image.
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 CANopen fieldbus to the PLC, PC or NC for further processing, and received from the field via CANopen.

The data of the analog modules is stored in the PDOs 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 also mapped in the PDOs. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.

All entries of the object dictionary can be mapped - as the user likes - in the 5 Rx PDOs and 5 Tx PDOs.

The complete input and output process image can be transmitted using SDOs. "Spacer modules" can be set via software.

Notice: EDS files required

Description	Item No.	Pack. Unit
CANopen ECO D-Sub	**750-348**	1

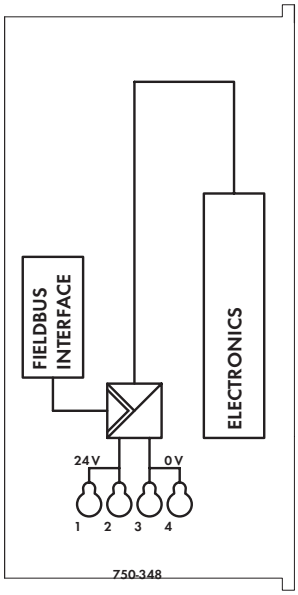
Accessories		Item No.	Pack. Unit
EDS files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

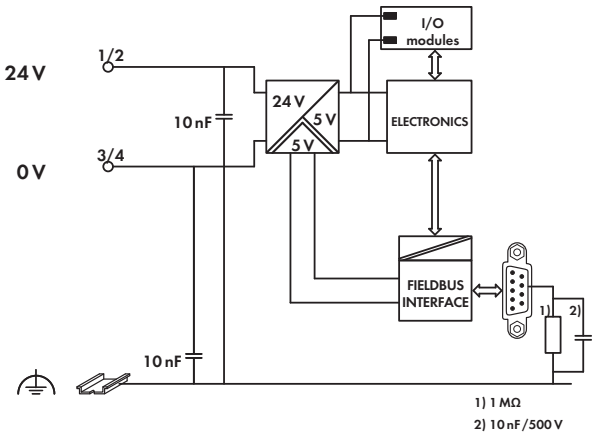
Approvals

Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm²
Max. length of bus line	30 m ... 1000 m
	(depends on baud rate/cable)
Baud rate	10 Kbaud ... 1 Mbaud
Buscoupler connection	1 x D-Sub 9; plug





Technical Data

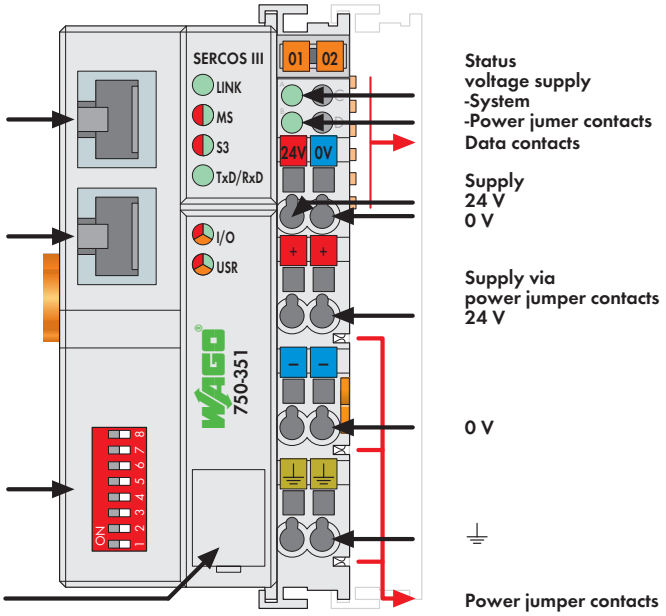
Number of I/O modules	64
Max. input process image	32 bytes
Max. output process image	32 bytes
Configuration	via PC or PLC
No. of PDOs	5 Tx / 5 Rx
No. of SDOs	1 server SDO
Communication profile	DS-301 V4.1
Device profile	DS-401 V2.0
	Programmable error response
COB ID distribution	SDO, standard
Node ID distribution	DIP switches
Other CANopen features	NMT slave
	Minimum boot-up
	Variable PDO mapping
	Emergency message
	Life guarding
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	260 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 16
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	115 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

SERCOS Fieldbus Coupler

2-port; 100 Mbit/s; digital and analog signals



The 750-351 Fielbus Coupler connects the WAGO-I/O-SYSTEM to the SERCOS network.
The fieldbus coupler is capable of supporting all WAGO I/O modules. 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.
The buscoupler can integrate into the application as a SERCOS I/O device and supports the SERCOS service channel (SVC), real-time channel (RTC) and TCP/IP communication standard.

Two integrated ports allow easy creation of a line or ring structure without requiring additional components. The ports support Auto-MDI/MDIX and will automatically detect the data direction so interchanging cables on the coupler will not impact operation.
The SERCOS node ID is assigned directly via network configuration.

Description	Item No.	Pack. Unit
SERCOS Coupler	**750-351**	1

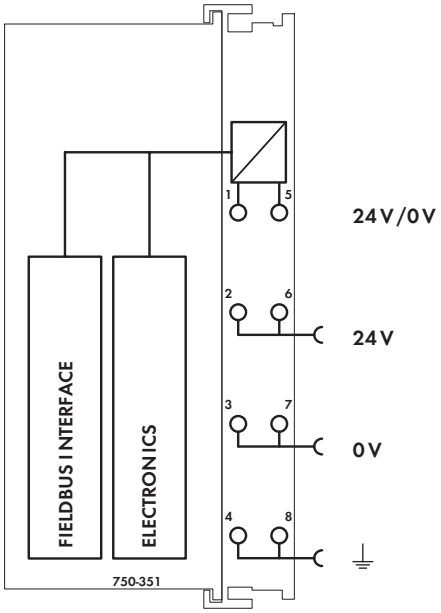
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

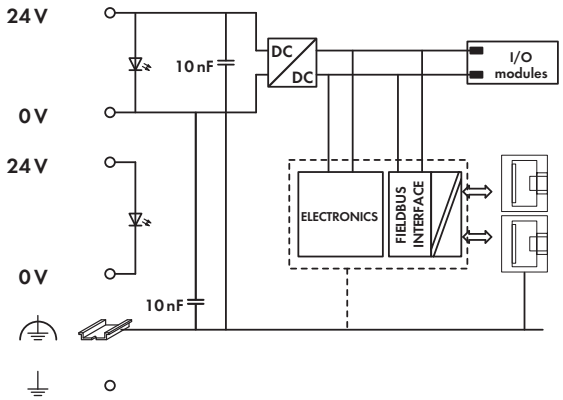
Approvals

SERCOS version	V1.1.1
IO profile	V1.1.1
Conformity marking	CE
Korea Certification	
Marine applications	ABS, BV, DNV, GL, KR, LR, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

Number of couplers (slaves) in Sercos ring	512
Transmission medium	Twisted Pair S-UTP 100 Ω Cat. 5
Max. length of fieldbus segment	100 m, limited by ETHERNET specification
Max. length of network	51.2 km, limited by ETHERNET specification
Baud rate	100 Mbit/s, full duplex
Buscoupler connection	2 x RJ-45
Protocols	SERCOS, FSP-IO, TCP/IP, FTP, HTTP, BootP, DHCP, SNTP
Supported services	SVC, RTC, CC, IP, ring break (GDP_Basic, SCP_VarCFG, SCP_Sync)





Technical Data

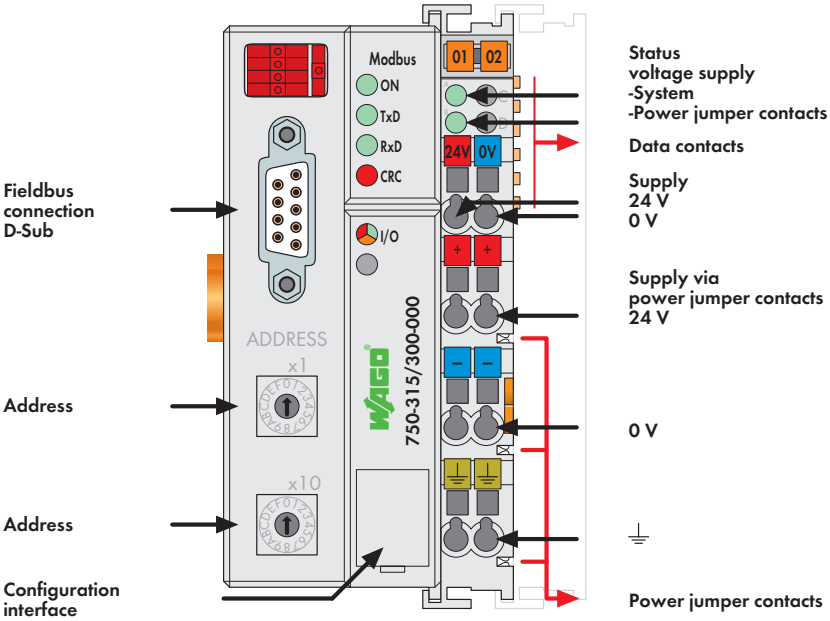
Number of I/O modules	64
with bus extension	250
Max. input process image	2 Kbytes (RTC and SVC)
Max. output process image	2 Kbytes (RTC and SVC)
Configuration	Node configuration via:
	WAGO ETHERNET settings,
	Web-based management,
	WAGO-I/O-CHECK,
	SERCOS Master (CP2 or higher),
	address selector switch
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	210 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

MODBUS Fieldbus Coupler

RS-485; 150 baud ... 115.2 Kbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the MODBUS 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.

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.

Description	Item No.	Pack. Unit
MODBUS / RS-485 / 150 Bd ... 115.2 kBd	**750-315/300-000**	1

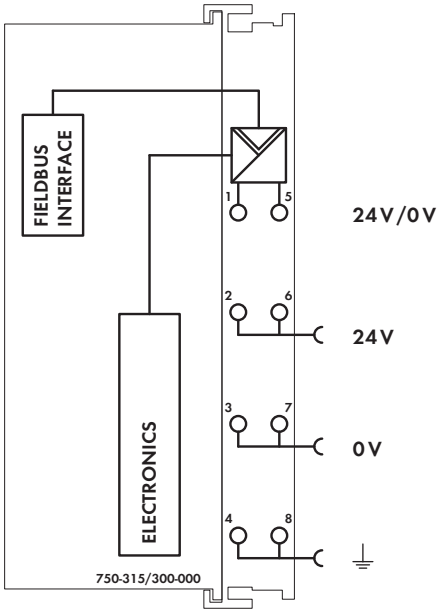
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

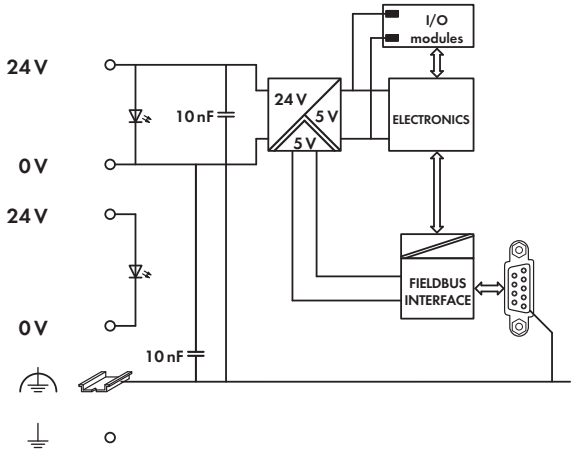
Approvals

Conformity marking	CE
Marine applications	BV, DNV, GL, KR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	247 with repeater
Max. no. of I/O points	approx. 6000 (depends on master)
Transmission medium	Shielded Cu cable 2 (4) x 0.25 mm²
Max. length of fieldbus segment	1200 m (depends on baud rate/cable)
Baud rate	150 baud ... 115.2 Kbaud
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

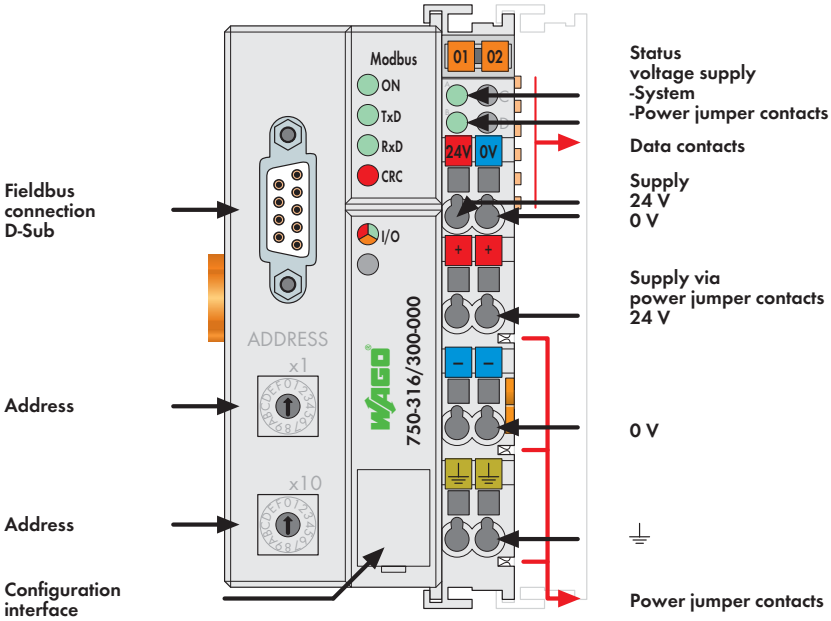
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	Via PC or rotary encoder switch
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	183.2 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

MODBUS Fieldbus Coupler

RS-232; 150 baud ... 115.2 Kbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the MODBUS 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.

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 eight bits, the buscoupler automatically starts with a new byte.

Description	Item No.	Pack. Unit
MODBUS / RS-232 / 150 Bd ... 115.2 kBd	**750-316/300-000**	1

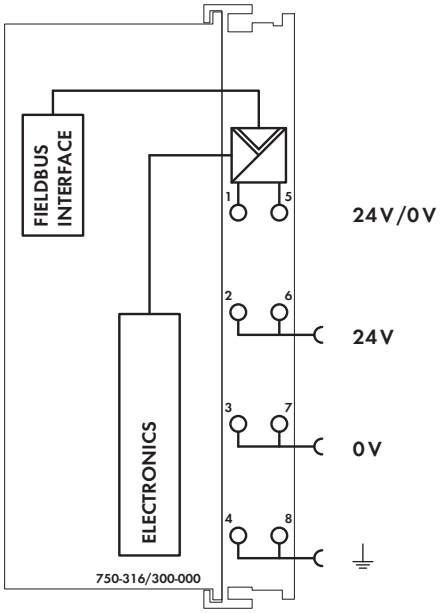
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

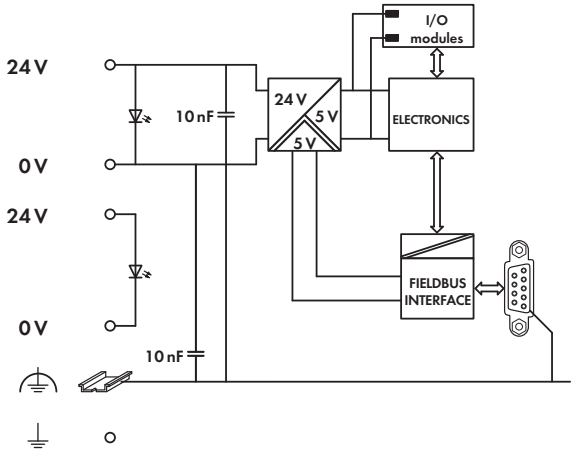
Approvals

Conformity marking	CE
Marine applications	BV, DNV, GL, KR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	247 with repeater
Max. no. of I/O points	approx. 6000 (depends on master)
Transmission medium	Shielded Cu cable 2 (4) x 0.25 mm²
Max. length of fieldbus segment	1200 m (depends on baud rate/cable)
Baud rate	150 baud ... 115.2 Kbaud
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

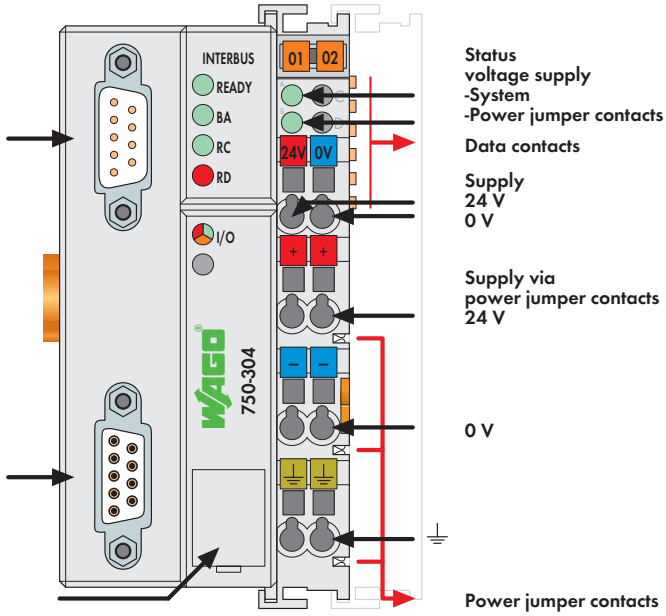
Number of I/O modules	64
Max. input process image	512 bytes
Max. output process image	512 bytes
Configuration	Via PC or rotary encoder switch
Power supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	184.8 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

INTERBUS Fieldbus Coupler

500 Kbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the INTERBUS 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.

INTERBUS 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 INTERBUS fieldbus to the PLC, PC or NC for further processing, and received from the field via INTERBUS. The process data can be sent via the INTERBUS fieldbus to the PLC, PC or NC for further processing, and received from the field via INTERBUS.

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.

Description	Item No.	Pack. Unit
INTERBUS 500 kBd	**750-304**	1

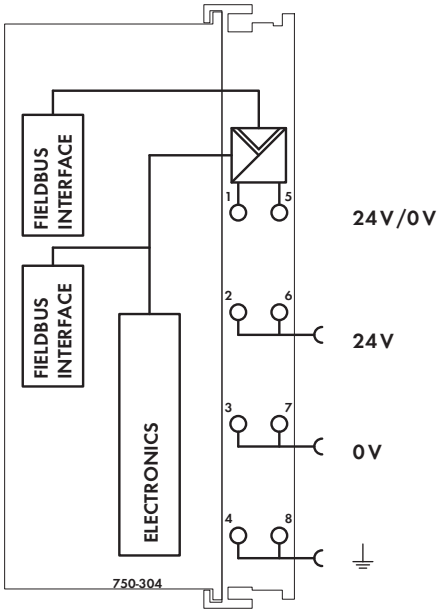
Accessories	Item No.	Pack. Unit
INTERBUS files	Download: www.wago.com	
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

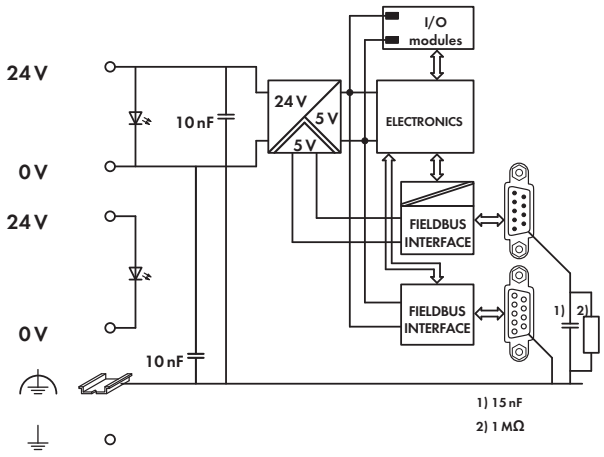
Standards and Approvals

Standard	EN 50254
Certification	INTERBUS CLUB
Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	256
Max. no. of I/O points	4096 (depends on master)
Transmission medium	Certified Cu cable
Max. length of fieldbus segment	400 m
Baud rate	500 Kbaud
Transmission time	typ. 1.43 ms (10 couplers; 32 digital I/Os
Buscoupler connection	1 x D-Sub 9; plug for input interface
	1 x D-Sub 9; socket for output interface





Technical Data

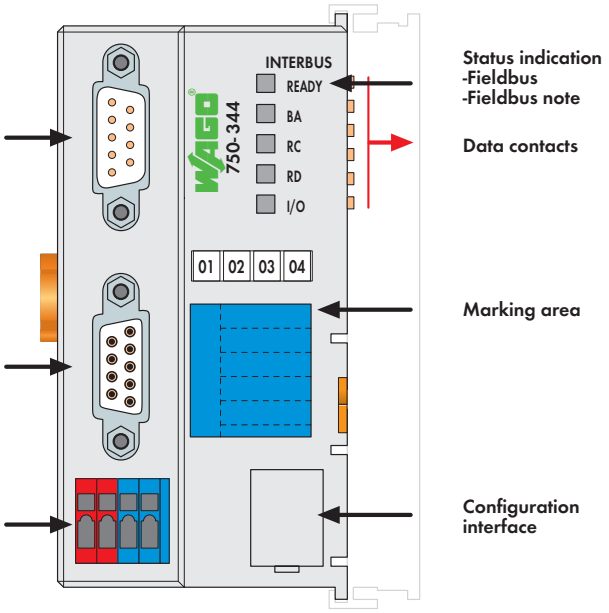
Number of I/O modules	64
Max. input process image	64 bytes
Max. output process image	64 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	300 mA
	(as from version 0101),
	450 mA (previous versions)
Total current for I/O modules (5 V)	1700 mA
	(as from version 0101),
	1550 mA (previous versions)
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	192 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

INTERBUS ECO Fieldbus Coupler

500 Kbaud; digital and analog signals



The ECO fieldbus coupler is designed for applications with a reduced scale I/O requirement. Using digital only process data or small amounts of analogs, while retaining all of the choice that's offered by the Series 750 I/O.

The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.

The INTERBUS bus coupler automatically configures, creating a local process image which may include analog, digital or specialty modules.

INTERBUS 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 INTERBUS fieldbus to the PLC, PC or NC for further processing, and received from the field via INTERBUS.

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.

Description	Item No.	Pack. Unit
INTERBUS ECO 500 kBd	**750-344**	1

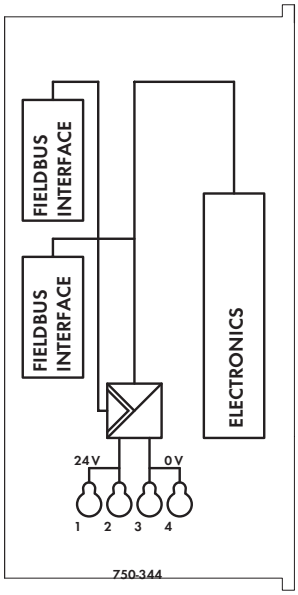
Accessories		Item No.	Pack. Unit
INTERBUS files		Download: www.wago.com	
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

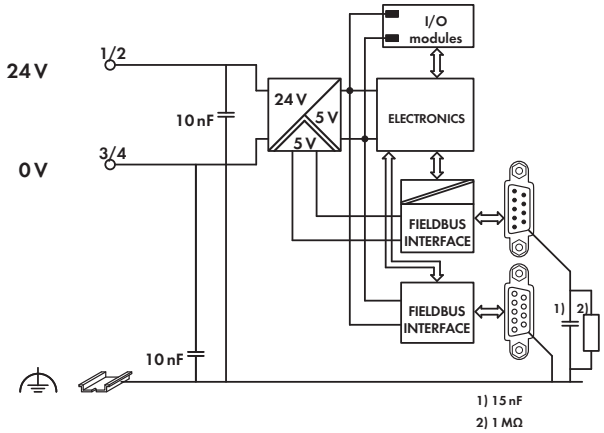
Standards and Approvals

Standard	EN 50254
Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	256
Max. no. of I/O points	4096 (depends on master)
Transmission medium	Certified Cu cable
Max. length of fieldbus segment	400 m
Baud rate	500 Kbaud
Transmission time	typ. 1.43 ms (10 couplers; 32 digital I/Os per coupler)
Buscoupler connection	1 x D-Sub 9; plug for input interface
	1 x D-Sub 9; socket for output interface





Technical Data

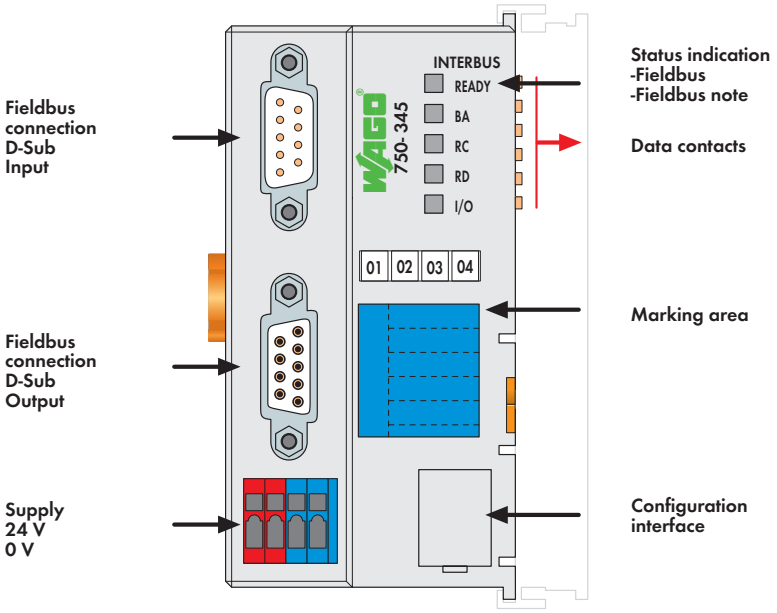
Number of I/O modules	64
Max. input process image	20 bytes
Max. output process image	20 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-15 % ... +20 %)
Input current typ. at rated load (24 V)	260 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 16
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	115 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

INTERBUS ECO Fieldbus Coupler

2 Mbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the INTERBUS 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.

INTERBUS 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 INTERBUS fieldbus to the PLC, PC or NC for further processing, and received from the field via INTERBUS.

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.

Description	Item No.	Pack. Unit
INTERBUS ECO 2 MBd	**750-345**	1

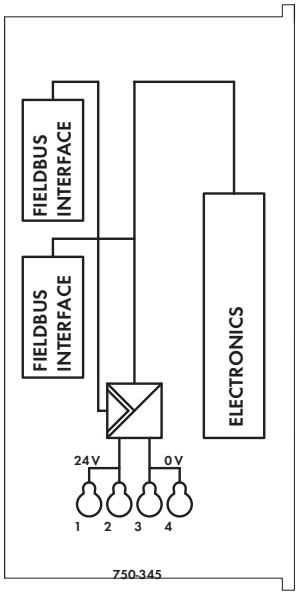
Accessories		Item No.	Pack. Unit
INTERBUS files		Download: www.wago.com	
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	

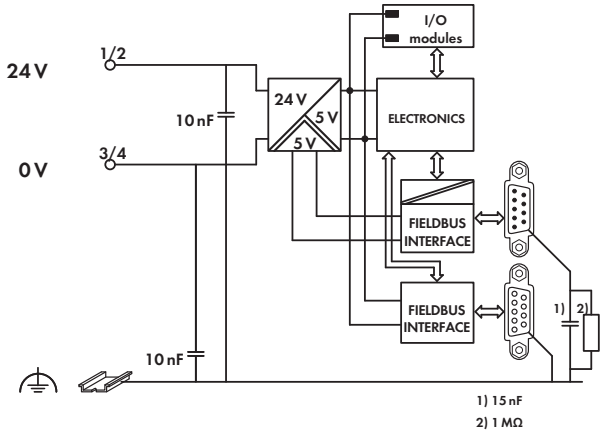
Standards and Approvals

Standard	EN 50254
Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	256
Max. no. of I/O points	4096 (depends on master)
Transmission medium	Certified Cu cable
Max. length of fieldbus segment	150 m
Baud rate	2 Mbaud
Transmission time	on request
Buscoupler connection	1 x D-Sub 9; plug for input interface
	1 x D-Sub 9; socket for output interface





Technical Data

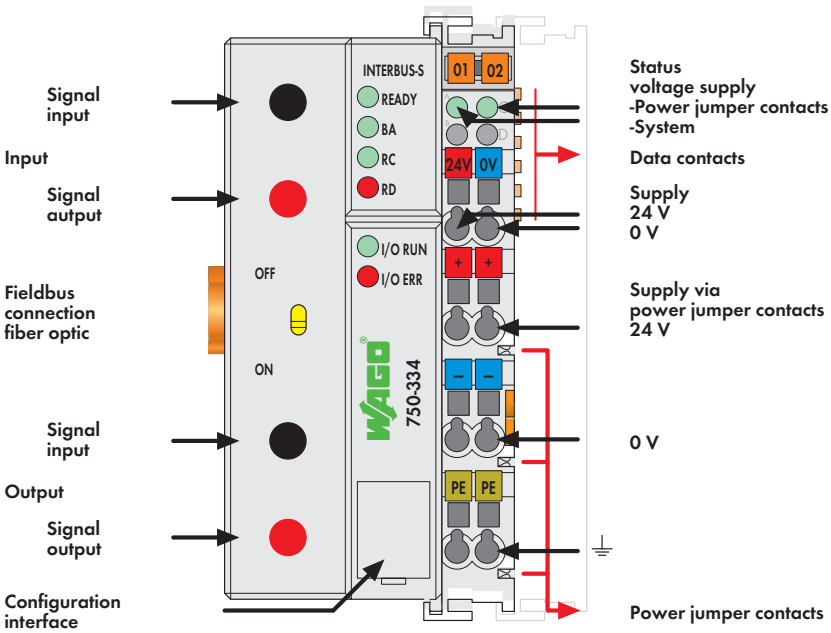
Number of I/O modules	64
Max. input process image	20 bytes
Max. output process image	20 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-15 % ... +20 %)
Input current typ. at rated load (24 V)	260 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 16
Strip lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	115 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

INTERBUS Fieldbus Coupler

digital and analog signals; fiber optic



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the INTERBUS 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.

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 INTERBUS fieldbus to the PLC, PC or NC for further processing, and received from the field via INTERBUS.

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.

The fiber optic INTERBUS coupler can be put in any place on the ring.

Description	Item No.	Pack. Unit
INTERBUS 500 kBd / Opt. Fiber	**750-334**	1

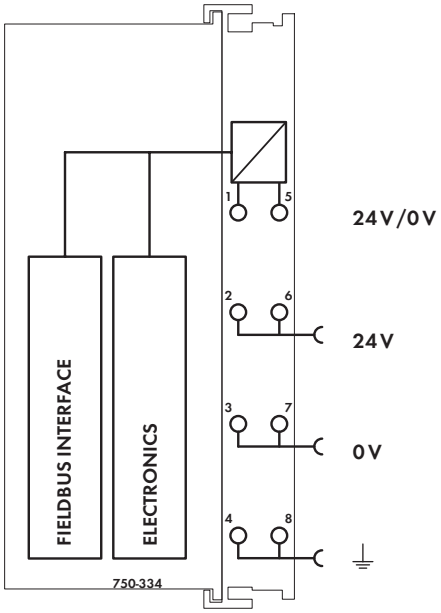
Accessories	Item No.	Pack. Unit
INTERBUS files	Download: www.wago.com	
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

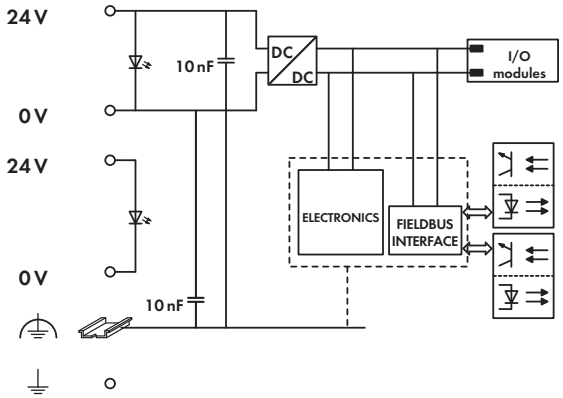
Standards and Approvals

Standard	EN 50254
Certification	INTERBUS CLUB
Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brasilien)	Ex nA IIC T4 Gc
DEKRA 11 ATEX 0203 X	II 3 G Ex nA II T4

System Data

No. of couplers connected to Master	256
Max. no. of I/O points	4096 (depends on master)
Transmission medium	APF (plastic) fiber (1000µm)
Topology	Ring, double fiber ring
Max. length of fieldbus segment	1 m ... 40 m
Baud rate	500 Kbaud
Buscoupler connection	F- SMA





Technical Data

Number of I/O modules	64
Max. input process image	64 bytes
Max. output process image	64 bytes
Configuration	via PC or PLC
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

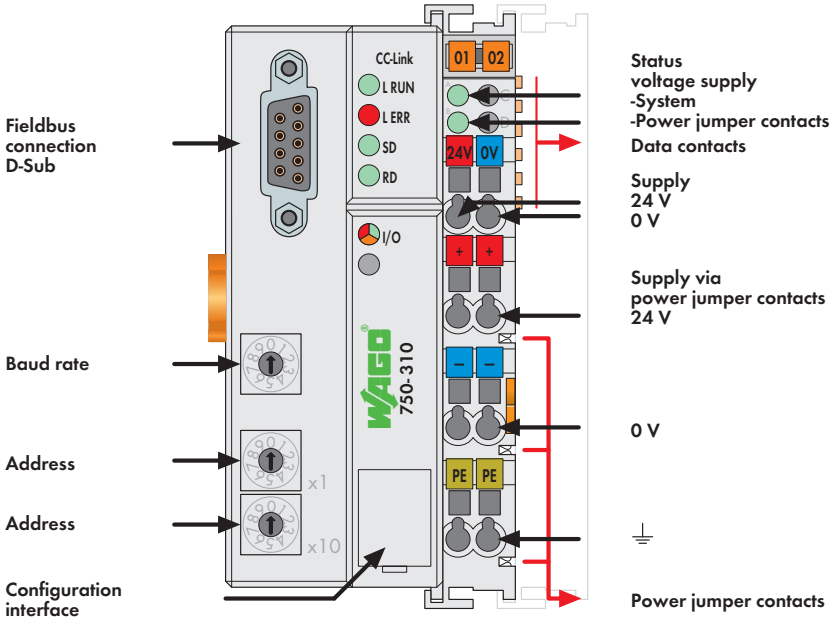
Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	189.8 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4

Switch

OFF	Fieldbus coupler is the last fieldbus device
ON	Output fieldbus interface is active

CC-Link Fieldbus Coupler

156 Kbaud ... 10 Mbaud; digital and analog signals



This buscoupler connects the WAGO-I/O-SYSTEM as a slave to the CC-Link 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.

CC-Link 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 CC-Link fieldbus to the PLC, PC or NC for further processing, and received from the field via CC-Link.

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.

Description	Item No.	Pack. Unit
CC-Link	**750-310**	1

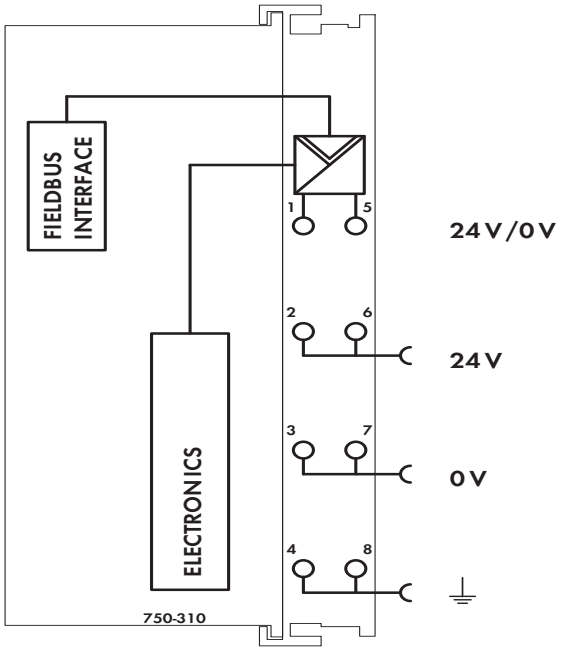
Accessories		Item No.	Pack. Unit
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see Section 11	
Bus connector with D-Sub male connector; 9 poles		**750-965**	1

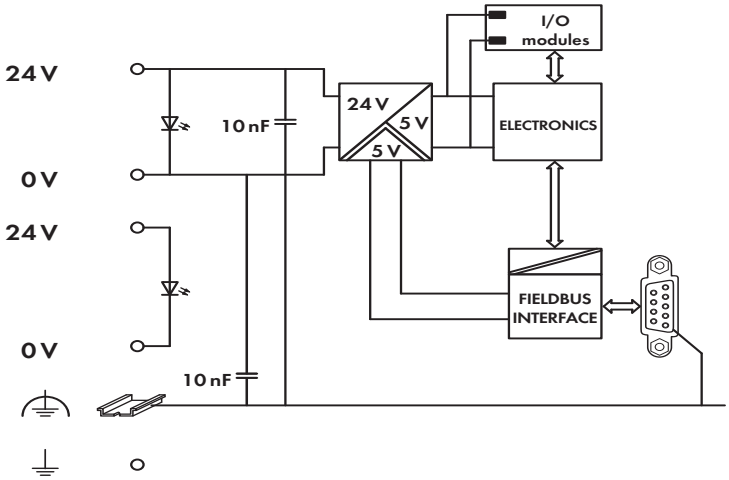
Approvals

Conformity marking	CE
Korea Certification	
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc
Permissible ambient temperature	0 °C ... +60 °C

System Data

No. of couplers connected to Master	64
Transmission medium	Shielded Cu cable 2 / 3 x 0.5 mm²
Max. length of bus line	100 m ... 1200 m
	(depends on baud rate/cable)
Baud rate	156 Kbaud ... 10 Mbaud
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

Number of I/O modules	64
Station addresses	up to 4
Max. input process image	14-byte digital,
	2-byte system,
	32-byte analog
Max. output process image	14-byte digital,
	2-byte system,
	32-byte analog
Power supply	24 VDC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Power supply efficiency	87 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 VDC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	210 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2
EMC emission of interference	acc. to EN 61000-6-4