Color: ▬

WAGO GmbH & Co. KG

Hansastr. 27

32423 Minden

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Email: info.de@wago.com | Web: www.wago.com

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Item description

The 750-333 Fieldbus Coupler maps the peripheral data of all the WAGO I/O System's I/O modules on PROFIBUS DP.

When initializing, the coupler determines the node's module structure and creates the process image of all inputs and outputs. I/O modules with a bit width smaller than eight are grouped in one byte for address space optimization.

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

The diagnostic concept is based on ID- and channel-related diagnostics according to EN 50170. This does away with the need for programming modules to evaluate manufacturer-specific diagnostic data.

The device is ideal for operation in extreme environments thanks to:

- An extended temperature range
- Greater immunity to impulse voltages and electromagnetic interference
- Higher vibration and shock resistance

Data
Notes

Note	
	Note: Configuration files required (GSD)!

Technical data

Communication	PROFIBUS
Number of fieldbus nodes on master (max.)	96
Number of I/O points	6,000
Baud rate	9.6 kBd … 12 MBd
Bus segment length (max.)	1200 m
Transmission medium	Cu cable per EN 50170
Transmission time	typ. 1 ms (10 couplers; each 32 digital I/O and 12 Mbaud) max. 3.3 ms
Number of modules per node (max.)	63
Input and output process image (fieldbus) max.	244 bytes/244 bytes
Supply voltage (system)	24 VDC; via pluggable connector (CAGE CLAMP® connection); Derating must be observed!
Current consumption (5 V system supply)	200 mA
Total current (system supply)	1,800 mA
Supply voltage (field)	24 VDC; Power supply via pluggable connector (CAGE CLAMP®

Subject to changes. Please also observe the further product documentation!

connection); Transmission via power jumper contacts; Derating must be observed!

Input current (typ.) at nominal load (24 V)	500 mA
Power supply efficiency (typ.) at nominal load (24 V)	90 %
Rated surge voltage	1 kV
Number of outgoing power jumper contacts	2
Current carrying capacity (power jumper contacts)	10 A
Ratings per	IEC/EN 60664-1
Derating	Derating (supply voltage): Ambient temperatures under laboratory conditions: (−25 … +30 %); for −40 … +55 °C: 24 V (−25 … +20 %); for +55 … +70 °C: 24 V (−25 … +10 %); Lower limit in all temperature ranges: −27.5 % (including 15 % residual ripple)
Standard	EN 50170

Connection data

Connection technology: communication/fieldbus	PROFIBUS: 1 x D-Sub 9 socket
Connection technology: field supply	4 x CAGE CLAMP®
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: device configuration	1 x Male connector; 4-pole
Connection type 1	System/field supply
Solid conductor	0.25 … 2.5 mm² / 24 … 14 AWG
Fine-stranded conductor	0.25 … 2.5 mm² / 24 … 14 AWG
Strip length	8 … 9 mm / 0.31 … 0.35 inches

Physical data

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

Mechanical Data

Mounting type	DIN-35 rail

Material Data

Color	dark gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	2.069 MJ

Subject to changes. Please also observe the further product documentation!

Weight	180 g
Conformity marking	CE

Environmental requirements

Ambient temperature (operation)	-40 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Protection type	IP20
Pollution degree	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 … 2000 m; with temperature derating: 2000 … 5000 m (0.5 K/100 m); 5000 m (max.)
Mounting position	horizontal (standing/lying); vertical
Relative humidity (without condensation)	95 %
Relative humidity (with condensation)	Short-term condensation per Class 3K7/IEC EN 60721-3-3 and E-DIN 40046-721-3 (except for wind-driven precipitation, water and ice formation)
Vibration resistance	per IEC 60068-2-6 (acceleration: 5g), EN 60870-2-2, IEC 60721-3-1, -3, EN 50155; EN 61373
Shock resistance	per IEC 60068-2-27 (15g/11 ms/half-sine/1,000 shocks; 25g/6 ms/1,000 shocks), EN 50155, EN 61373
EMC immunity to interference	per EN 61000-6-1, -2; EN 61131-2; marine applications; EN 50121-3-2; EN 50121-4, -5; EN 60255-26; EN 60870-2-1; EN 61850-3; IEC 61000-6-5; IEEE 1613; VDEW: 1994
EMC emission of interference	per EN 61000-6-4, EN 61131-2, EN 60255-26, marine applications, EN 60870-2-1, EN 61850-3, EN 50121-3-2, EN 50121-4, -5
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H_2S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO_2 contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data

Product Group	15 (I/O System)
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
ETIM 8.0	EC001603
ETIM 7.0	EC001603
PU (SPU)	1 pcs
Packaging type	box
Country of origin	DE

Subject to changes. Please also observe the further product documentation!

GTIN	4050821460138
Customs tariff number	85176200000

Environmental Product Compliance

CAS-No.	11120-22-2
	1303-86-2
	1317-36-8
	541-02-6
	7439-92-1
	79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol
	Decamethylcyclopentasiloxane [D5]
	Diboron trioxide
	Lead
	Lead monoxide
	Lead silicate
	Perfluorobutane sulfonic acid (PFBS) and its salts
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c)
	7(a)
	7(c)-I
	7(c)-II
SCIP notification number (Austria)	38ba9a7f-6dac-4fbe-a206-23d517a32c4c
SCIP notification number (Belgium)	0542618e-67b1-4043-972d-7d0a56de0719
SCIP notification number (Bulgaria)	5e349747-8b3c-44ae-ab6e-6916c3715aaa
SCIP notification number (Czech Republic)	01d77a49-cb80-49b5-8e08-7f5cc6648d21
SCIP notification number (Denmark)	a43b7ef1-086c-4ca1-a085-a7c5f810d980
SCIP notification number (Finland)	b58385fb-1af9-427f-9a8d-5cb42604590e
SCIP notification number (France)	c58162bd-84cf-4395-b4c9-af84ea67c2b3
SCIP notification number (Germany)	cd055834-ab06-4bc7-99fa-63a7f74862d3
SCIP notification number (Hungary)	fcbdab62-e5eb-4f28-88fc-61f53b8a26f5
SCIP notification number (Italy)	29591d56-da84-4095-a182-5f831093528c
SCIP notification number (Netherlands)	8bdbf2e4-81b2-4919-80a3-d5c289fa026a
SCIP notification number (Poland)	5bff45c2-9262-4a07-a732-b2278dba9664
SCIP notification number (Romania)	efc0e1b4-ec9a-452c-a2cd-4ab58e750ece
SCIP notification number (Sweden)	08cd2470-cb0c-45cc-badc-9b3f6973b5bf

Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name

Subject to changes. Please also observe the further product documentation!

	EAC	TP TC 020/2011	EAC RU C-DE.AM02.B.00087 /19
	Brjansker Zertifizierungsstelle		
	KC	Article 58-2, Clause 3	MSIP-REM-W43-FBC750
	National Radio Research Agency		
	UL	UL 508	E175199 Sec.1
	Underwriters Laboratories Inc. (ORDINARY LOCATIONS)		

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
CE	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	22-2208829-PDA
	DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00000Y7
	LR Lloyds Register	-	LR22276776TA
	PRS Polski Rejestr Statków	-	TE/2215 /880590/18

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV 17 ATEX 193969X (II 3 G Ex ec IIC T4 Gc)

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08.06.2023   Page 6/13
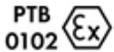
|			
PTB 0102			
CCC CNEX	CNCA-C23-01	2020312310000214 (Ex ec IIC T4 Gc)	
EAC Brjansker Zertifizierungsstelle	TP TC 012/2011	EAC RU C-DE.AM02.B.00163 /19 (2Ex e IIC T4 Gc X)	
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 16.0046X (Ex ec IIC T4 Gc)	
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX005X_ec	
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	E198726 Sec.1	

Optional accessories

Marking accessories

Marker carrier

Item no.: 750-103 Group marker carrier	www.wago.com/750-103

Marker

Item no.: 2009-145/000-006 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; blue	www.wago.com/2009-145 /000-006
Item no.: 2009-145 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	www.wago.com/2009-145 /000-002

Subject to changes. Please also observe the further product documentation!

	Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; gray	www.wago.com/2009-145 /000-007
	Item no.: 2009-145/000-005 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; red	www.wago.com/2009-145 /000-005
	Item no.: 2009-145/000-012 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; orange	www.wago.com/2009-145 /000-012
	Item no.: 2009-145/000-023 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; green	www.wago.com/2009-145 /000-023
	Item no.: 2009-145/000-024 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; violet	www.wago.com/2009-145 /000-024
	Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue	www.wago.com/248-501 /000-006
	Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray	www.wago.com/248-501 /000-007
	Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow	www.wago.com/248-501 /000-002
	Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange	www.wago.com/248-501 /000-012
	Item no.: 248-501 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white	www.wago.com/248-501
	Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green	www.wago.com/248-501 /000-017
	Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red	www.wago.com/248-501 /000-005
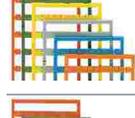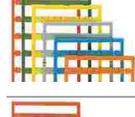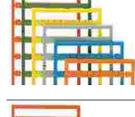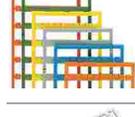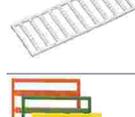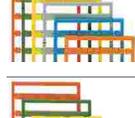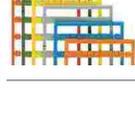
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	Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet	www.wago.com/248-501 /000-024
	Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green	www.wago.com/248-501 /000-023

Group marker carrier

	Item no.: 750-107 Group marker carrier	www.wago.com/750-107

Cables and pluggable connectors

Connector plug

	Item no.: 750-960 Fieldbus Connector PROFIBUS; with D-sub male connector; 9-pole	www.wago.com/750-960

Communication

Communication cable

	Item no.: 750-923 Configuration cable; USB connector; Length: 2.5 m	www.wago.com/750-923
	Item no.: 750-923/000-001 Configuration cable; USB connector; Length: 5 m	www.wago.com/750-923 /000-001

Shield termination

Shield clamping saddles

	Item no.: 790-116 Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 … 16 mm	www.wago.com/790-116
	Item no.: 790-124 Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 … 24 mm	www.wago.com/790-124
	Item no.: 790-108 Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 … 8 mm	www.wago.com/790-108
	Item no.: 790-140 Shield clamping saddle; diameter of compatible conductor	www.wago.com/790-140
	Item no.: 790-216 Shield clamping saddle; 21.8 mm wide; 6 … 16 mm	www.wago.com/790-216
	Item no.: 790-220 Shield clamping saddle; 30 mm wide; 6 … 20 mm	www.wago.com/790-220
	Item no.: 790-208 Shield clamping saddle; 12.4 mm wide; 3 … 8 mm	www.wago.com/790-208

Subject to changes. Please also observe the further product documentation!

Carrier rail

Mounting accessories

	Item no.: 210-197 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715; silver-colored	www.wago.com/210-197
	Item no.: 210-198 Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	www.wago.com/210-198
	Item no.: 210-504 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715; silver-colored	www.wago.com/210-504
	Item no.: 210-505 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715; silver-colored	www.wago.com/210-505
	Item no.: 210-506 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-506
	Item no.: 210-508 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715; silver-colored	www.wago.com/210-508
	Item no.: 210-113 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-113
	Item no.: 210-118 Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; silver-colored	www.wago.com/210-118
	Item no.: 210-112 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm; silver-colored	www.wago.com/210-112
	Item no.: 210-114 Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	www.wago.com/210-114
	Item no.: 210-115 Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm; silver-colored	www.wago.com/210-115
	Item no.: 210-196 Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	www.wago.com/210-196
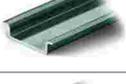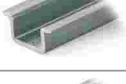
System housing

System enclosure

	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	www.wago.com/850-814/002-000
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	www.wago.com/850-815/002-000

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Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate		www.wago.com/850-816 /002-000
Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate		www.wago.com/850-817 /002-000
Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20		www.wago.com/850-825
Item no.: 850-826 IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip		www.wago.com/850-826
Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip		www.wago.com/850-827
Item no.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip		www.wago.com/850-827 /002-000
Item no.: 850-826/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip		www.wago.com/850-826 /002-000
Item no.: 850-828/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip		www.wago.com/850-828 /002-000
Item no.: 850-828 IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip		www.wago.com/850-828
Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20		www.wago.com/850-834
Item no.: 850-835 IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip		www.wago.com/850-835
Item no.: 850-836 IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip		www.wago.com/850-836

Downloads
Documentation

Manual

Product Manual PROFIBUS DP/V1 12 Mbd /XTR	V 1.4.0	pdf	Download

Subject to changes. Please also observe the further product documentation!

for eXTReme environmental conditions; 12 Mbaud; digital and analog signals	2019 Dec 5	7.2 MB	

Bid Text

750-333/040-000 X81 - Datei	2019 Feb 19	xml 8.4 kB	Download
750-333/040-000 doc - Datei	2015 Oct 26	doc 35.8 kB	Download

Instruction Leaflet

CCC Ex (Additional information) WAGO-I/O-SYSTEM *750-****/**40-****	2023 Apr 26	pdf 148.1 kB	Download

System Description

System Manual XTR Basic conditions and recommendations for higher operational safety	V 2.0.0 2022 Sep 14	pdf 8.0 MB	Download
750 XTR Series I/O-System – General Product Information		pdf 743.5 kB	Download

Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 Aug 18	pdf 2.2 MB	Download

Application Notes

Application Note CoDeSys 2.3

HART Tool Routing via PROFIBUS with 750-833 and 750-333 (a116140) This application note describes how to set up asset management systems, which facilitate simple, efficient configuration of HART field devices. Using the Cerabar PMC51 (Endress+Hauser) as an example, connecting any HART sensor to a WAGO PROFIBUS controller and a WAGO PROFIBUS Coupler is explained. The cyclic PROFIBUS Master (750-8208) realizes the data exchange. As an acyclic master, a TH LINK PROFIBUS provides access for the plant asset management applications WAGOframe, PACTware and FieldCare.	1.0.0 2019 Mar 22	pdf 5.3 MB	Download

CAD/CAE-Data

CAD data

Subject to changes. Please also observe the further product documentation!

| 2D/3D Models 750-333/040-000 | | | URL | Download |

CAE data

EPLAN Data Portal 750-333/040-000			URL	Download
WSCAD Universe 750-333/040-000			URL	Download
ZUKEN Portal 750-333/040-000			URL	Download
EPLAN Data Portal 750-333/040-000			URL	Download
WSCAD Universe 750-333/040-000			URL	Download

Device Files

Device Description File

| 750-910; GSD files for PROFIBUS / 750, 752, 755, 758 and 767 Series | 6.8
2023 Jan 15 | zip
5.5 MB | Download |

Environmental Product Compliance

Compliance Search

| Environmental Product Compliance 750-333/040-000
Fieldbus Coupler PROFIBUS DP; 2nd Generation; 12 MBd; Extreme | | | URL | Download |

Installation Notes

Product family

WAGO I/O System 750 XTR

I/O-System 750 XTR: Dort automatisieren, wo jedes andere System an seine Grenzen stößt – und das zuverlässig und wirtschaftlich! XTR – dieses Kürzel im Systemnamen steht für extremen Schutz vor klimatischen Einflüssen, Schwingungen, Erschütterungen und Überspannungen.

Show all products from the family

Subject to changes. Please also observe the further product documentation!

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Email: info.de@wago.com | Web: www.wago.com

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