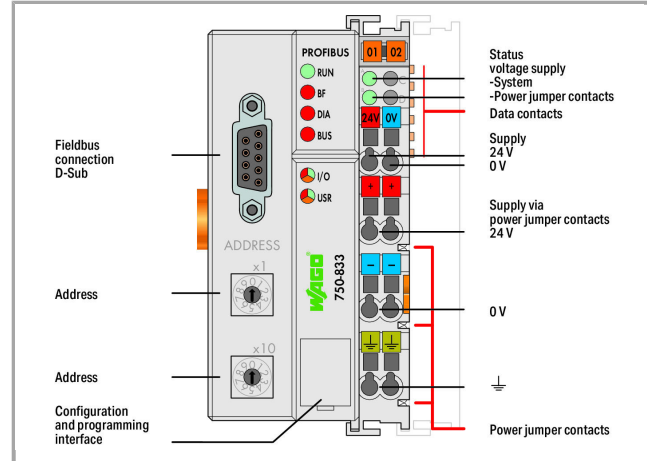


Data sheet | Item number: 750-833/025-000
 Controller PROFIBUS Slave; Ext. Temperature



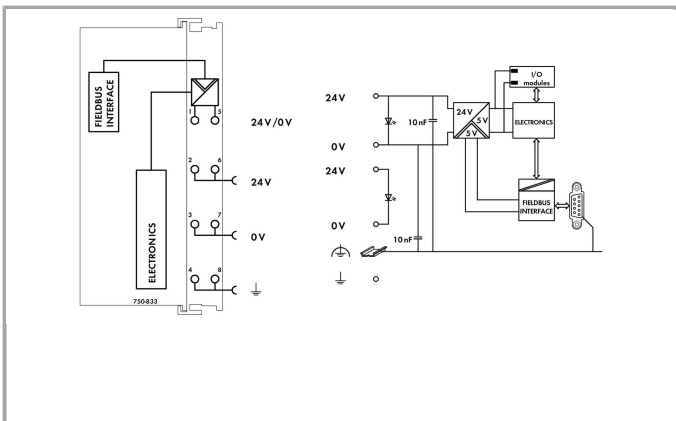
750-833/025-000

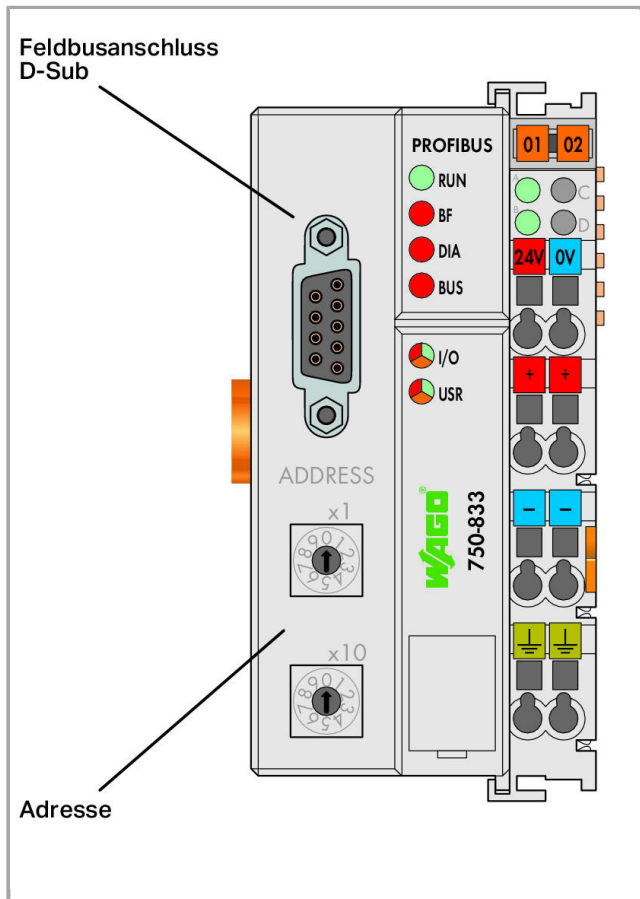


RoHS Compliant

BOMcheck.net

Color:





Item description

The PROFIBUS DP/V1 Controller combines control functionality, I/O interface and fieldbus in one device.

Application programming is IEC 61131-3 compliant.

The programmer can access all fieldbus and I/O data.

Features and applications:

- Decentralized control to optimize support for a PLC or PC
- Divide complex applications into individually testable units
- Programmable fault response in the event of fieldbus failure
- Signal pre-processing to reduce fieldbus transmissions
- Directly control peripheral equipment for faster system response times
- Stand-alone, compact controller

Note:

Note: Configuration files required (GSD)!

The GSD files can be downloaded for free at www.wago.com.



Data

Technical Data

Communication	PROFIBUS
Visualization	without
CPU	16 bits
Programming languages per IEC 61131-3	Instruction List (IL) Ladder Diagram (LD) Function Block Diagram (FBD), Continuous Function Chart (CFC) Structured Text (ST) Sequential Function Chart (SFC)
Programming environment	WAGO-I/O-PRO V2.3 (based on CODESYS V2.3)
Configuration options	Device description file GSD WAGO-I/O-CHECK
Cycle time	< 3 ms for 1,000 statements / 256 dig. I/Os
Baud rate	9.6 kBd ... 12 MBd
Fieldbus segment length max.	1200 m
Transmission medium (communication/fieldbus)	Cu cable acc. to EN 50170
Transmission time	typ. 1 ms (10 controller; 32 digital I/Os per controller at 12 Mbaud) max. 3.3 ms
Number of fieldbus nodes on the master max.	96
Max. no. of I/O points	6000
Program memory	128 kByte
Data memory	64 kByte
Software non-volatile memory	8 Kbytes
Memory for fieldbus input variables max.	244 Byte
Memory for fieldbus output variables max.	244 Byte
Number of modules per node max.	63
Input and output process image (Fieldbus) max.	244 Byte/244 Byte
Indicators	LED (RUN) green: Fieldbus initialization, LED (BF, DIA, BUS) red: communication error, external diagnostics, configuration; LED (I/O, USR) red/green/orange: Internal data bus status, status programmable by user; LED (A, B) green: System power supply status, field supply
System supply voltage	DC 24 V(-25 ... +30 %); via wiring level (CAGE CLAMP® connection)
Input current typ. at rated load (24 V)	500 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	87 %
Current consumption, system supply (5 V)	200 mA
Total current for system supply	1800 mA
Field supply voltage	DC 24 V (-25 ... +30 %); via power jumper contacts
Current carrying capacity of the power jumper contacts	10 A
Number of outgoing power jumper contacts	3
Isolation	500 V system/supply

Connection data

Connection technology: communication/fieldbus	PROFIBUS: 1 x D-Sub 9 socket
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	6 x CAGE CLAMP®
Connection type (1)	System/field supply
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
Connection technology: Device configuration	1 x 4-pole male connector

Geometrical Data

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

Mechanical data

Weight	187.5 g
Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Conformity marking	1

Environmental Requirements

Surrounding air (operating) temperature	-20 ... 60 °C
Surrounding air (storage) temperature	-40 ... 85 °C
Protection class	IP20
Degree of pollution (5)	2 per IEC 61131-2
Operating altitude	without temperature derating: 0 ... 2000 m; with temperature derating: 2000 ... 5000 m (0.5 K/100 m); max.: 5000 m
Relative air humidity (no condensation)	95 %
Relative humidity	Short-term condensation per Class 3K6/IEC EN 60721-3-3 and E DIN 40046-721-3, taking a temperature range of -20 ... +60 °C into consideration (except wind-driven precipitation, water and ice formation)
Mounting position	any
Type of mounting	DIN-35 rail
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications

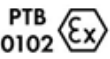


Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Fire load	1.756 MJ
Permissible H ₂ S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO ₂ contaminant concentration at a relative humidity 75 %	25 ppm

Commercial data


Product Group	15 (Remote I/O)
Country of origin	DE
GTIN	4045454504328
Customs Tariff No.	85371091990

Approvals / Certificates

Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ATEX TUEV Nord Cert GmbH	EN 60079-0	TÜV 07 ATEX 554086 X en.
	TUEV Nord TUEV Nord Cert GmbH	IEC 60079-0	IECEX TUN 09.0001 X
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726 Sec.1

Country specific Approvals

Logo	Approval	Additional Approval Text	Certificate name
	KC National Radio Research Agency	Article 58-2, Clause 3	MSIP- REM-W43- PFC750

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1821812- PDA



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UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL UL International Netherlands B.V. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.1


Compatible products

system box







	Item no.: 850-804 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip	850-804
	Item no.: 850-804/000-001 IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 2 x M20, 13 x M16, 32 x M12 cable grip	850-804
	Item no.: 850-805 IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip	850-805
	Item no.: 850-814/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate	850-814
	Item no.: 850-815/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate	850-815
	Item no.: 850-816/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate	850-816
	Item no.: 850-817/002-000 IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate	850-817

	Item no.: 850-825 IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20	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	850-826
	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	850-826 /002-000
	Item no.: 850-827 IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	850-827
	Item no.: 850-827/002-000 IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip	850-827 /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	850-828
	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	850-828 /002-000
	Item no.: 850-834 IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20	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	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	850-836

wiring and connectors

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

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



Item no.: 790-220
Shield clamping saddle; 30 mm wide; 6 ... 20 mm

790-220

General accessories


Item no.: 750-921
Bluetooth® Adapter

750-921



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

750-923



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

750-923

/000-001

Carrier rail


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

210-112



Item no.: 210-113
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715

210-113



Item no.: 210-114
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715

210-114



Item no.: 210-115
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm

210-115



Item no.: 210-118
Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-118



Item no.: 210-196
Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715

210-196



Item no.: 210-197
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

210-197



Item no.: 210-198
Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715

210-198



Item no.: 210-504
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715

210-504



Item no.: 210-505
Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715

210-505



Item no.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715

210-506



Item no.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715

210-508

software


Item no.: 759-333
WAGO-I/O-PRO

759-333



Item no.: 759-333/000-923
WAGO-I/O-PRO; USB-Set

759-333















/000-923









Item no.: 759-911
WAGO-I/O-PRO; CD

759-911

Marking accessories

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



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

Downloads

Documentation

Manual

PROFIBUS DP/V1 Programmable Fieldbus Controller EN 50170, 12 MBaud, digital and analog signals	V 2.0.0	pdf 8.2 MB	Download
WAGUpload For commissioning, management and configuration of ETHERNET 750 Series fieldbus controllers	V 4.0.0	pdf 6.0 MB	Download

Bid Text

750-833/025-000 IO, Controller	Oct 2, 2014	doc 33.3 kB	Download
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Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download
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System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
Design Notes Basic conditions and recommendations for higher operational safety	V 2.0.0	pdf 1.5 MB	Download



750 Controller, General Product Information

pdf
621.9 kB[Download](#)

Engineering-Software

Configuration and Commissioning Software

WAGO Extension Setting / 750 Series	2.0.2 Mar 9, 2011	zip 5.4 MB	Download
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WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	2.3.9.55 Jul 3, 2015	zip 108.3 MB	Download
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Runtime Software

Firmware

Firmware: 750-833/025-000 Controller PROFIBUS Slave; Ext. Temperature	17 Feb 26, 2018	zip 567.8 kB	Download
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CAD/CAE - Smart Data

CAD data

3D Download 750-833/025-000		URL	Download
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Device Files

Device Description File

EDD file for SIMATIC PDM for 750-333, 750-833, 750-482, 750-484	1.0 Nov 22, 2010	zip 185.2 kB	Download
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750-910; GSD files for PROFIBUS / 750, 752, 755, 758 and 767 Series	6.3 Jun 15, 2017	zip 4.7 MB	Download
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Device Driver

WAGO USB Service Cable Driver / 750 and 857 Series 759-923	6.5.3.0 Sep 10, 2014	zip 4.8 MB	Download
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Product family

Controller 750

[Learn more about the product family.](#)

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Subject to changes.
