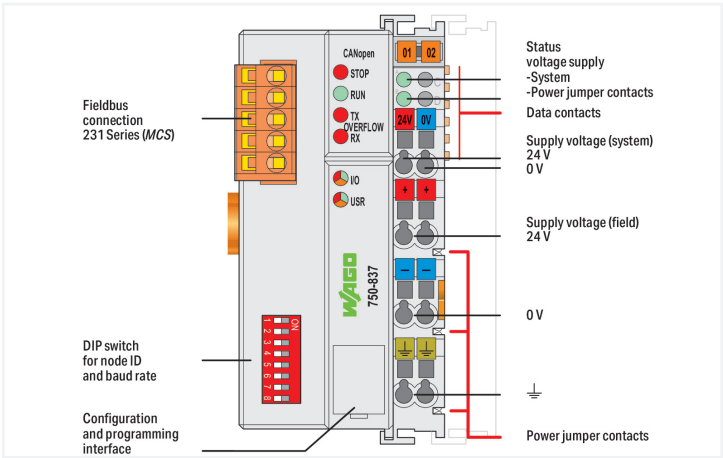
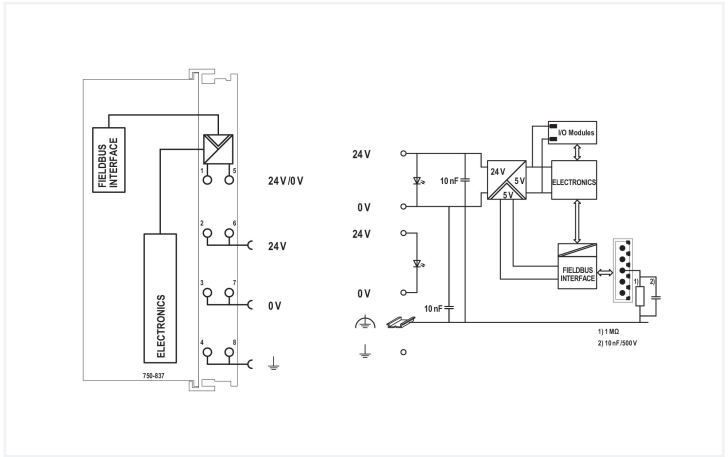




Color: ■ light gray



The CANopen 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
- Devide complex applications into individually testable units
- Programmable fault response in the event of fieldbus failure
- Signal pre-processing reduces fieldbus transmissions
- Directly control peripheral equipment for faster system response times
- Stand-alone, compact controller

Notes	
Note	Note: Configuration files required (EDS)! The EDS files can be downloaded for free at www.wago.com .



Technical data		
Communications		CANopen
Visualization		none
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		EDS device description file WAGO-I/O-CHECK
Cycle time		< 3 ms for 1000 bit instructions/ 256 digital I/O
Transmission rate		10 kBd ... 1 MBd
Bus segment length (max.)		1000 m
Transmission medium (communication/fieldbus)		Shielded Cu cable 3 x 0.25 mm²
Number of fieldbus nodes on master (max.)		110
Program memory		128 KB
Data memory		64 KB
Non-volatile software memory		8 KB
Memory for fieldbus input variables (max.)		512 bytes
Memory for fieldbus output variables (max.)		512 bytes
Number of modules per node (max.)		64
Number of modules without a bus extension (max.)		64
Number of PDOs		32 Tx / 32 Rx
Number of SDOs		2 SDO servers / 16 SDO clients
Input and output process image (fieldbus) max.		512 bytes/512 bytes
Other CANopen features		NMT slave Minimum boot-up Variable PDO mapping Emergency message Life guarding/heartbeat Empty module configuration
COB ID distribution		SDO, standard
Node ID distribution		DIP switch
Supported profiles		Communication profile: DS-301 V4.01; device profile: DS-401 V2.0; limit monitoring, flank-triggered PDOs, configurable response in the event of an error, DSP 405, NMT master programmable using function blocks
Indicators		LED (STOP) red: Device/node Stop; LED (RUN) green: Initialization; LED (TX, RX OVER-FLOW) red: CAN send/receive buffer overflow; LED (I/O, USR) red/green/orange: Local status, status programmable by user; LED (A, B) green: System power supply status, field supply
Supply voltage (system)		24 VDC (-25 ... +30 %); via pluggable connector (CAGE CLAMP® connection)
Input current (typ.) at nominal load (24 V)		500 mA
Power supply efficiency (typ.) at nominal load (24 V)		87 %
Current consumption (5 V system supply)		350 mA
Total current (system supply)		1650 mA
Supply voltage (field)		24 VDC (-25 ... +30 %); via power jumper contacts
Current carrying capacity (power jumper contacts)		10 A
Number of outgoing power jumper contacts		3
Isolation		500 V system/field



Connection data	
Connection technology: communication/fieldbus	CANopen: 1 x Male connector; 5-pole
Connection technology: system supply	2 x CAGE CLAMP®
Connection technology: field supply	6 x CAGE CLAMP®
Connectable conductor materials	Copper
Connection type	System/field supply
Solid conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 14 AWG
Strip length	8 ... 9 mm / 0.31 ... 0.35 inches
Connection technology: device configuration	1 x Male connector; 4-pole

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

Mechanical data	
Mounting type	DIN-35 rail

Material data	
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Fire load	3.117 MJ
Weight	183 g
Conformity marking	CE

Environmental requirements	
Ambient temperature (operation)	0 ... +55 °C
Ambient temperature (storage)	-25 ... +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 left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
Relative humidity (without condensation)	95 %
Vibration resistance	4g per IEC 60068-2-6
Shock resistance	15g per IEC 60068-2-27
EMC immunity to interference	per EN 61000-6-2, marine applications
EMC emission of interference	per EN 61000-6-4, marine applications
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Permissible H 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 (I/O System)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4045454527105
Customs tariff number	85371091990

Product Classification	
UNSPSC	32151705
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
ETIM 9.0	EC000236
ETIM 8.0	EC000236
ECCN	NO US CLASSIFICATION

Environmental Product Compliance	
CAS-No.	12060-00-3 1303-86-2 1317-36-8 25550-51-0 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 4-Methyl-1,2-cyclohexanedicarboxylic anhydride Diboron trioxide Lead Lead monoxide Lead titanium oxide (PbTiO3)
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Bulgaria)	fd14751b-2ecc-4384-ac31-9a74ea3ab2e3
SCIP notification number (Czech Republic)	1824d93b-51a3-4ca8-b32d-0d84a6d23c8f

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
  		
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083
KC National Radio Research Agency	Article 58-2, Clause 3	MSIP-REM-W43-PFC750
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199
Approval	Standard	Certificate Name
EU-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-
UK-Declaration of Confor- mity WAGO GmbH & Co. KG	-	-



Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	22-2219060
BSH Bundesamt fuer See- schifffahrt und Hydrogra- phie	-	1104
BV Bureau Veritas S.A.	-	13453/E0 BV
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Ship- ping	-	KR HMB05880-AC001
LR Lloyds Register EMEA	-	LR22180952TA
PRS Polski Rejestr Statków	-	TE/1101/880590/23
RINA RINA Germany GmbH	-	ELE343521XG001

Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX TUEV Nord Cert GmbH	EN 60079-0	TUEV14ATEX148929X (II 3 G Ex ec IIC T4 Gc)
CCCEX CQST/CNEx	CNCA-C23-01	2020312310000213 (Ex ec IIC T4 Gc)
IECEx TUEV Nord Cert GmbH	IEC 60079-0	IECEx TUN 14.0035 X (Ex ec IIC T4 Gc)
INMETRO TÜV Rheinland do Brasil Ltda.	IEC 60079-0	TÜV 12.1297 X
UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WA GO22UKEX003X_ec
UL Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)	UL 121201	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 750-837

↓

Documentation

Manual

System Manual Series 750/753

↓

Product Manual CANo-
pen programmable
fieldbus controller, MCS

V 2.0.1

pdf
7584.54 KB

↓

System Description

Overview on WAGO-I/
O-SYSTEM 750 appro-
vals

pdf
770.48 KB

↓

750 Controller, General
Product Information

pdf
507.50 KB

↓

Bid Text

750-837

19.02.2019

xml
7.11 KB

↓

750-837

13.07.2015

doc
29.50 KB

↓

Instruction Leaflet

CCC Ex (Additional in-
formation)

26.04.2023

pdf
159.76 KB

↓



Application Notes

Application Note CoDeSys 2.3				
Using the Profile401_1 library for data exchange between WAGO CANopen devices (a112600)	1.0.0	zip	321.55 KB	↓
	19.05.2003			

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 750-837	EPLAN Data Portal 750-837
↓	↓
	WSCAD Universe 750-837
	↓
	ZUKEN Portal 750-837
	↓

Engineering-Software

Configuration and Commissioning Software				
WAGO-IO-PRO Demo-Version (759-912) / Serie 750, 758 und 762	V 2.3.9.68 17.02.2022	zip 122524.17 KB	↓	

Runtime Software

Firmware				
0750-0837, Controller CANopen	V 19 24.04.2024	zip 573.91 KB	↓	

Device Files

Device Driver				
WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 10.09.2014	zip 4721.96 KB	↓	

Libraries

Device Description File	Library			
750-914; EDS file for CANopen / 750, 752 and 767 Series	XT 12.03.2021	zip 1728.38 KB	↓	
	Condition monitoring with 750-645	1.0.1 27.07.2011	zip 110.12 KB	↓
	Control DC motor with 750-636	1.0.0 08.11.2017	zip 146.93 KB	↓
	CANopen profile 401	1.0.1 27.07.2011	zip 76.92 KB	↓



1 Compatible Products

1.1 Optional Accessories

1.1.1 Communication

1.1.1.1 Communication cable



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



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

1.1.2 DIN-rail

1.1.2.1 Mounting accessories



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



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



Item No.: 210-508
Steel carrier rail; 35 x 15 mm; 1.5 mm
thick; 2 m long; slotted; galvanized; simi-
lar to EN 60715; silver-colored



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



Item No.: 210-506
Steel carrier rail; 35 x 15 mm; 1.5 mm
thick; 2 m long; unslotted; galvanized; si-
milar to EN 60715; silver-colored



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



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



Item No.: 210-115
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



Item No.: 210-112
Steel carrier rail; 35 x 7.5 mm; 1 mm thick;
2 m long; slotted; according to EN 60715;
"Hole width 25 mm; silver-colored



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



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



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

1.1.3 Marking

1.1.3.1 Group marker carrier



Item No.: 750-106
Group marker carrier

1.1.3.2 Marker



Item No.: 750-100
Marker card; as a DIN A4 sheet; plain



Item No.: 2009-145/000-006
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; blue



Item No.: 2009-145/000-007
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; gray



Item No.: 2009-145/000-023
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; green



Item No.: 2009-145/000-012
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; orange



Item No.: 2009-145/000-005
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; red



Item No.: 2009-145/000-024
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; violet



Item No.: 2009-145
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; white



Item No.: 2009-145/000-002
Mini-WSB Inline; for Smart Printer; 1700
pieces on roll; stretchable 5 - 5.2 mm;
plain; snap-on type; yellow



Item No.: 248-501/000-006
Mini-WSB marking card; as card; not
stretchable; plain; snap-on type; blue



Item No.: 248-501/000-007
Mini-WSB marking card; as card; not
stretchable; plain; snap-on type; gray



Item No.: 248-501/000-023
Mini-WSB marking card; as card; not stretch-
able; plain; snap-on type; green



1.1.3.2 Marker



Item No.: 248-501/000-017
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green



Item No.: 248-501/000-012
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange



Item No.: 248-501/000-005
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red



Item No.: 248-501/000-024
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet



Item No.: 248-501
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white



Item No.: 248-501/000-002
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

1.1.3.3 Marker carrier



Item No.: 750-103
Group marker carrier

1.1.4 Shield termination

1.1.4.1 Shield clamping saddles



Item No.: 790-108
Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm



Item No.: 790-208
Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm



Item No.: 790-116
Shield clamping saddle; 19 mm wide; diameter of compatible conductor; 7 ... 16 mm



Item No.: 790-216
Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm



Item No.: 790-124
Shield clamping saddle; 27 mm wide; diameter of compatible conductor; 6 ... 24 mm



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



Item No.: 790-140
Shield clamping saddle; diameter of compatible conductor

1.1.5 Software

1.1.5.1 Basic version



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

1.1.6 System enclosure

1.1.6.1 System enclosure



Item No.: 850-825
IP65 enclosure; Aluminium (RAL 7032); WxHxD (160x100x160 mm); 9 x M12, 4 x M20



Item No.: 850-826
IP65 enclosure; Aluminium (RAL 7032); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827
IP65 enclosure; Aluminium (RAL 7032); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828
IP65 enclosure; Aluminium (RAL 7032); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-826/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (240x100x160 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-827/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (320x100x160 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-828/002-000
IP65 enclosure; Aluminium (RAL 7035); WxHxD (480x100x160 mm); 4 x M20, 10 x M16, 35 x M12 cable grip



Item No.: 850-834
IP65 enclosure; Polyester (RAL 7032); WxHxD (164x100x164 mm); 9 x M12, 4 x M20



1.1.6.1 System enclosure



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); WxHxD (244x100x164 mm); 4 x M20, 4 x M16, 14 x M12 cable grip



Item No.: 850-836
IP65 enclosure; Polyester (RAL 7032); WxHxD (324x100x164 mm); 4 x M20, 8 x M16, 17 x M12 cable grip



Item No.: 850-814/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (200x120x200 mm); without flange plate



Item No.: 850-815/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (300x120x200 mm); without flange plate



Item No.: 850-816/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (400x120x200 mm); without flange plate



Item No.: 850-817/002-000
IP65 enclosure; Sheet steel (RAL 7035); WxHxD (600x120x200 mm); without flange plate