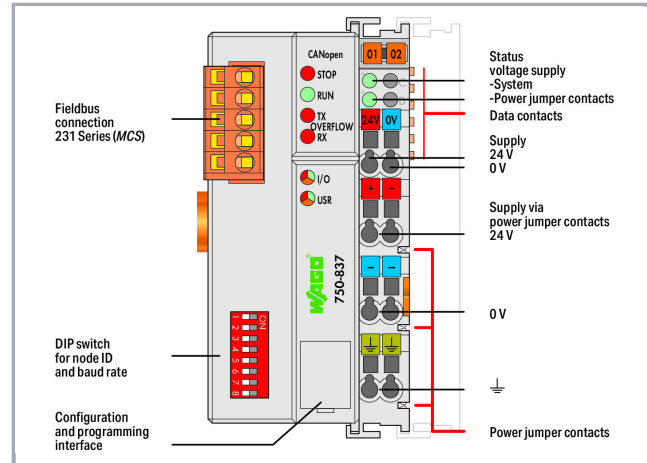


Data sheet | Item number: 750-837/021-000

Controller CANopen; 640/832 KB Program/RAM; MCS; light gray

www.wago.com/750-837/021-000



RoHS Compliant

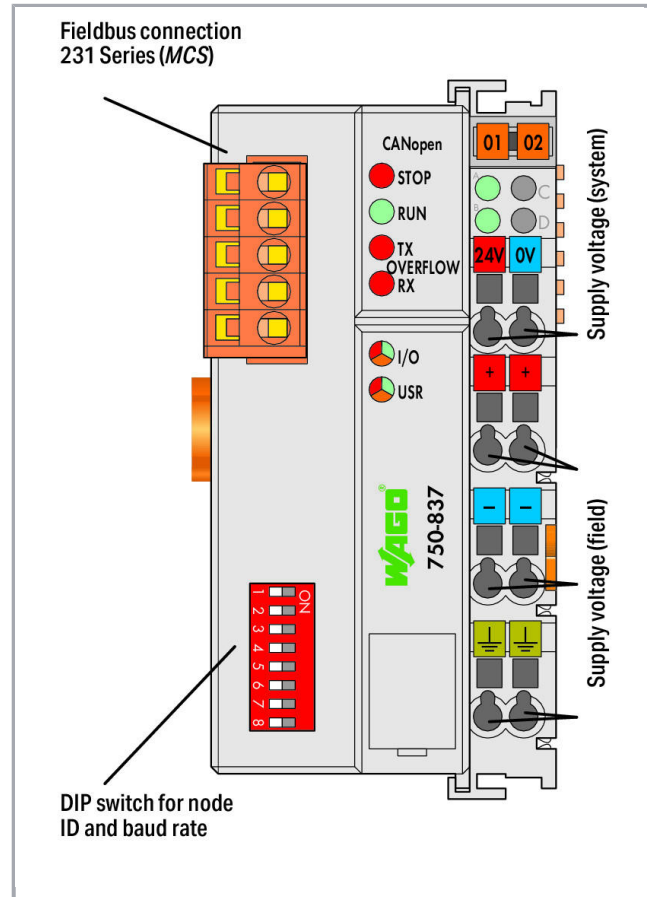
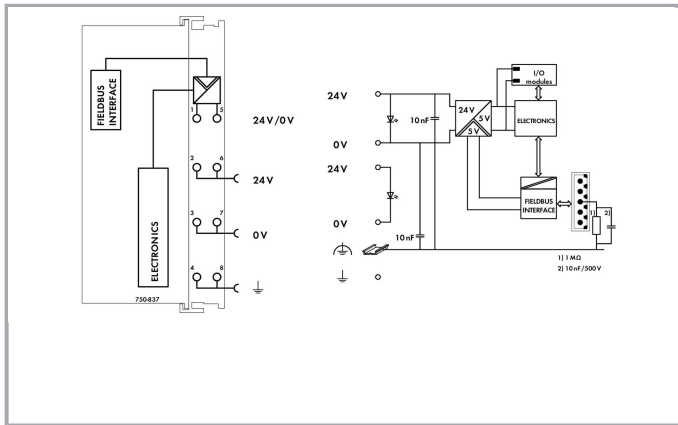
BOMcheck.net

Color:

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

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Item description

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
- Divide 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

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

**Note:****Note: Configuration files required (EDS)!**

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

Data**Technical Data**

Communication	CANopen
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	EDS device description file WAGO-I/O-CHECK
Cycle time	< 3 ms for 1000 bit instructions/ 256 digital I/O
Baud rate	10 kBd ... 1 MBd
Fieldbus segment length max.	1000 m
Transmission medium (communication/fieldbus)	Shielded Cu cable 3 x 0.25 mm ²
Number of fieldbus nodes on the master max.	110
Program memory	640 kByte
Data memory	832 kByte
Software non-volatile memory	8 Kbytes
Memory for fieldbus input variables max.	512 Byte
Memory for fieldbus output variables max.	512 Byte
Number of modules per node max.	64
No. of PDOs	32 Tx / 32 Rx
No. of SDOs	2 SDO servers / 16 SDO clients
Input and output process image (Fieldbus) max.	512 Byte/512 Byte
Other CANopen features	NMT slave Minimum boot-up Variable PDO mapping Emergency message Life guarding/heartbeat Empty module configuration

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



COB ID distribution	SDO, standard
Node ID distribution	DIP switch
Profiles supported	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 OVERFLOW) 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
System supply voltage	DC 24 V(-25 ... +30 %); via pluggable connector (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)	350 mA
Total current for system supply	1,650 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/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®
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 Male connector; 4-pole

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

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Mechanical data

Weight	184 g
Color	light gray
Housing material	Polycarbonate, polyamide 6.6
Conformity marking	CE

Environmental Requirements

Surrounding air (operating) temperature	0 ... 55 °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); 5000 m (max.)
Relative air humidity (no condensation)	95 %
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	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
Fire load	2.481 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)
Packaging type	BOX
Country of origin	DE
GTIN	4050821072867
Customs Tariff No.	85371091990


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Approvals / Certificates






Ex-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	UL 121201	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- HG1821926
	BV Bureau Veritas S.A.	-	13453/DO BV
	DNV GL Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
	KR Korean Register of Shipping	-	KR HMB05880- AC001
	LR Lloyds Register	-	02/20026 (E6)
	PRS	-	TE/2236

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/880590/19



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RINA Germany GmbH

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

UL-Approvals

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

Counterpart

Compatible products

Carrier rail

	<p>Item no.: 210-112</p> <p>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm"</p>	www.wago.com/210-112
	<p>Item no.: 210-113</p> <p>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715</p>	www.wago.com/210-113
	<p>Item no.: 210-114</p> <p>Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715</p>	www.wago.com/210-114
	<p>Item no.: 210-115</p> <p>Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm"</p>	www.wago.com/210-115
	<p>Item no.: 210-118</p> <p>Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715</p>	www.wago.com/210-118
	<p>Item no.: 210-196</p> <p>Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored</p>	www.wago.com/210-196
	<p>Item no.: 210-197</p>	

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Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715

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

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

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

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

www.wago.com/210-508

shield connection



Item no.: 790-108

Shield clamping saddle; 11 mm wide; diameter of compatible conductor; 3 ... 8 mm

www.wago.com/790-108



Item no.: 790-116

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.: 790-140

Shield clamping saddle; diameter of compatible conductor

www.wago.com/790-140

Item no.: 790-208

Shield clamping saddle; 12.4 mm wide; 3 ... 8 mm

www.wago.com/790-208



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

system box

Item no.: 850-804

IP65 enclosure; Stainless steel; WxHxD (400x123x200 mm); 4 x M20, 16 x M16, 28 x M12 cable grip

www.wago.com/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

www.wago.com/850-804/000-001



Item no.: 850-805

IP65 enclosure; Stainless steel; WxHxD (600x123x200 mm); 4 x M20, 19 x M16, 67 x M12 cable grip

www.wago.com/850-805



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

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	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
	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.: 850-826/002-000 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.: 850-827 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.: 850-828 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.: 850-828/002-000 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.: 850-834 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

Marking accessories


	Item no.: 2009-145 Mini-USB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white	www.wago.com/2009-145
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Subject to changes. Please also observe the further product documentation!


 **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; white www.wago.com/2009-145/000-002


 **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.: 2009-145/000-006
 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.: 2009-145/000-007**
 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white www.wago.com/2009-145/000-007

 **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
 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card www.wago.com/248-501

 **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.: 248-501/000-005
 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red www.wago.com/248-501/000-005

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.: 248-501/000-012**
 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange www.wago.com/248-501/000-012

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



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.: 248-501/000-023
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

www.wago.com/248-501/000-023



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.: 750-100
Marker card; as a DIN A4 sheet; plain; white

www.wago.com/750-100



Item no.: 750-103
Group marker carrier; transparent

www.wago.com/750-103



Item no.: 750-106
Group marker carrier; transparent

www.wago.com/750-106

software



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

www.wago.com/759-333



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

www.wago.com/759-333/000-923

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

www.wago.com/759-911

General accessories

Item no.: 750-921
Bluetooth® Adapter; light gray

www.wago.com/750-921

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

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

Downloads

Documentation

Manual

CANopen programmable fieldbus controller, MCS
16-bit CPU

V 2.0.1

pdf
7.8 MB

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

Use in Hazardous Environments Term definition, marking and installation regulations	V 1.0.0	pdf 1.0 MB	Download
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750 Controller, General Product Information		pdf 621.9 kB	Download
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Design Notes Basic conditions and recommendations for higher operational safety	V 2.0.0	pdf 1.5 MB	Download
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Overview on WAGO-I/O-SYSTEM 750 approvals		pdf 780.2 kB	Download
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Engineering-Software

Configuration and Commissioning Software

WAGO Extension Setting / Serie 750	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: 750-837/021-000 Controller CANopen; 640/832 KB Program/RAM; MCS; light gray	17 Feb 26, 2018	zip 739.8 kB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 750-837/021-000		URL	Download
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CAE data

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EPLAN Data Portal 750-837/021-000

[URL](#) [Download](#)

WSCAD Universe 750-837/021-000

[URL](#) [Download](#)

Device Files

Device Driver

WAGO USB Service Kabel Treiber / Serie 750 und 857	6.5.3.0 Sep 10, 2014	zip 4.8 MB	Download
750-914; EDS file for CANopen / 750, 752 and 767 Series	XR Dec 20, 2019	zip 1.7 MB	Download

Device Description File

750-914; EDS file for CANopen / 750, 752 and 767 Series	XR Dec 20, 2019	zip 1.7 MB	Download
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Installation Notes

Product family

Controller 750

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

[Show all products from the family](#)

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