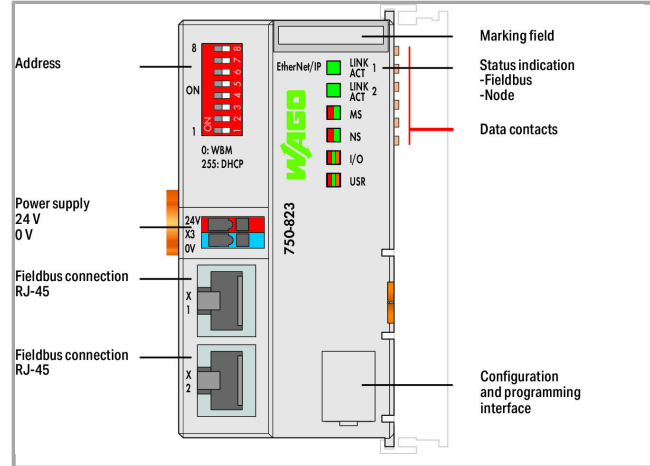


Data sheet | Item number: 750-823

Controller EtherNet/IP; 4th generation; 2 x ETHERNET; ECO; light gray

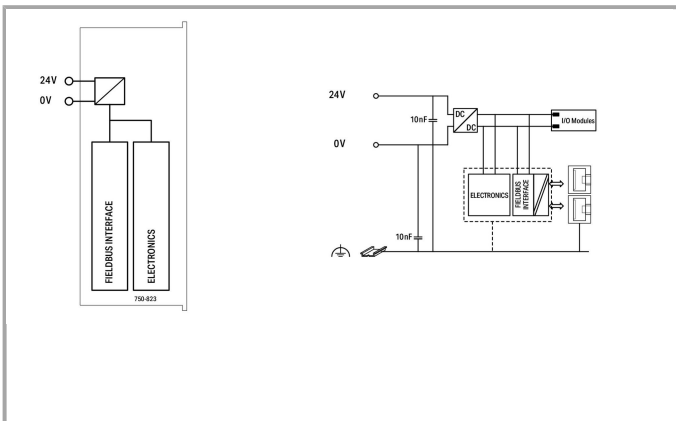
[www.wago.com/750-823](http://www.wago.com/750-823)

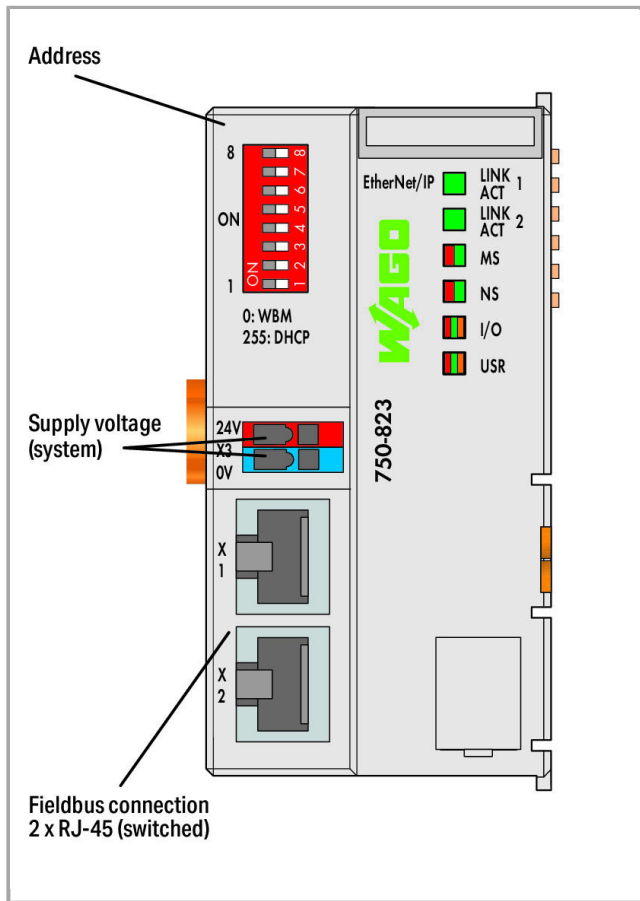


RoHS Compliant

[BOMcheck.net](http://BOMcheck.net)

Color:





### Item description

This controller can be used as a programmable controller within EtherNet/IP networks in conjunction with the WAGO-I/O-SYSTEM.

The controller detects all connected I/O modules and creates a local process image. This process image may include a mixed arrangement of analog (word-by-word data transfer) and digital (bit-by-bit data transfer) modules.

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 autonegotiation and Auto-MDI(X).

The DIP switch configures the last byte of the IP address and may be used for IP address assignment.

The controller is designed for fieldbus communication in EtherNet/IP networks. It also supports a wide variety of standard ETHERNET protocols (HTTP(S), BootP, DHCP, DNS, SNTP, (S)FTP).

An integrated Webserver provides user configuration options, while displaying controller's status information.

The IEC 61131-3 programmable controller is multitasking-capable.

### Data

#### Technical Data

Communication	EtherNet/IP
Ethernet protocol	HTTP(S) BootP DHCP DNS SNTP (S)FTP SNMP



Visualization	Web-Visu
CPU	32 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	WAGO-I/O-CHECK Web-based management CODESYS Library
Baud rate (communication/fieldbus 1)	10/100 Mbit/s
Baud rate	10/100 Mbit/s
Transmission medium (communication/fieldbus)	Twisted Pair S-UTP; 100 Ω; Cat. 5; Line length (max.): 100 m
Transmission performance	Class D acc. to EN 50173
Program memory	2.048 MB
Data memory	2.048 MB
Software non-volatile memory	32 Kbytes
Number of modules per node max.	250
Number of I/O modules without bus extension max.	64
Input and output process image (Fieldbus) max.	1020 Worte/1020 Worte
Indicators	LED (LINK/ACT) green: Network connection Port 1 ... 2; LED (MS, NS) red/green: Status of node, network; LED (I/O, USR) red/green /orange: Internal data bus status, status programmable by user
System supply voltage	DC 24 V(-25 ... +30 %); via wiring level
Input current typ. at rated load (24 V)	300 mA
Efficiency of the power supply (typ.) at nominal load (24 V)	90 %
Current consumption, system supply (5 V)	390 mA
Total current for system supply	700 mA
Isolation	500 V system/supply

## Connection data

Connection technology: communication/fieldbus	EtherNet/IP: 2 x RJ-45
Connection technology: system supply	2 x CAGE CLAMP®
Connection type (1)	System supply
Solid conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG
Fine-stranded conductor	0.08 ... 1.5 mm <sup>2</sup> / 28 ... 14 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inch
Connection technology: Device configuration	1 x 4-pole male connector

## Geometrical Data

Width	49.5 mm / 1.949 inch
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Height	71.9 mm / 2.831 inch
Height from upper-edge of DIN-35 rail	64.7 mm / 2.547 inch
Depth	96.8 mm / 3.811 inch

### Mechanical data

Weight	103.033 g
Color	light gray
Housing material	Polycarbonate, polyamide 6.6

### 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); max.: 5000 m
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	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications
Exposure to pollutants	Per IEC 60068-2-42 and IEC 60068-2-43
Permissible H <sub>2</sub> S contaminant concentration at a relative humidity 75 %	10 ppm
Permissible SO <sub>2</sub> contaminant concentration at a relative humidity 75 %	25 ppm

### Commercial data

GTIN	4055143889094
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### Approvals / Certificates

#### Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	<b>DNV GL</b> Det Norske Veritas, Germanischer Lloyd	-	TAA0000194
	<b>LR</b>	-	02/20026 (E6)



Lloyds Register






RINA  
RINA Germany GmbH







ELE066419XG
















## Compatible products


















### General accessories

	<b>Item no.: 750-921</b> Bluetooth® Adapter; light gray	<a href="http://www.wago.com/750-921">www.wago.com/750-921</a>
	<b>Item no.: 750-923</b> Configuration cable; USB connector; Length: 2.5 m; black	<a href="http://www.wago.com/750-923">www.wago.com/750-923</a>
	<b>Item no.: 750-923/000-001</b> Configuration cable; USB connector; Length: 5 m	<a href="http://www.wago.com/750-923/000-001">www.wago.com/750-923/000-001</a>

### Marking accessories

	<b>Item no.: 2009-145</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; white	<a href="http://www.wago.com/2009-145">www.wago.com/2009-145</a>
	<b>Item no.: 2009-145/000-002</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; yellow	<a href="http://www.wago.com/2009-145/000-002">www.wago.com/2009-145/000-002</a>
	<b>Item no.: 2009-145/000-005</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; red	<a href="http://www.wago.com/2009-145/000-005">www.wago.com/2009-145/000-005</a>
	<b>Item no.: 2009-145/000-006</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; blue	<a href="http://www.wago.com/2009-145/000-006">www.wago.com/2009-145/000-006</a>
	<b>Item no.: 2009-145/000-007</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; gray	<a href="http://www.wago.com/2009-145/000-007">www.wago.com/2009-145/000-007</a>
	<b>Item no.: 2009-145/000-012</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; orange	<a href="http://www.wago.com/2009-145/000-012">www.wago.com/2009-145/000-012</a>

	<p><b>Item no.: 2009-145/000-023</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; green</p>	<a href="http://www.wago.com/2009-145/000-023">www.wago.com/2009-145/000-023</a>
	<p><b>Item no.: 2009-145/000-024</b> Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; violet</p>	<a href="http://www.wago.com/2009-145/000-024">www.wago.com/2009-145/000-024</a>
	<p><b>Item no.: 248-501</b> Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card</p>	<a href="http://www.wago.com/248-501">www.wago.com/248-501</a>
	<p><b>Item no.: 248-501/000-002</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p>	<a href="http://www.wago.com/248-501/000-002">www.wago.com/248-501/000-002</a>
	<p><b>Item no.: 248-501/000-005</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-005">www.wago.com/248-501/000-005</a>
	<p><b>Item no.: 248-501/000-006</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-006">www.wago.com/248-501/000-006</a>
	<p><b>Item no.: 248-501/000-007</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-007">www.wago.com/248-501/000-007</a>
	<p><b>Item no.: 248-501/000-012</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-012">www.wago.com/248-501/000-012</a>
	<p><b>Item no.: 248-501/000-017</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-017">www.wago.com/248-501/000-017</a>
	<p><b>Item no.: 248-501/000-023</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-023">www.wago.com/248-501/000-023</a>
	<p><b>Item no.: 248-501/000-024</b> Mini-WSB marking card; as card; not stretchable; plain; snap-on type; white</p>	<a href="http://www.wago.com/248-501/000-024">www.wago.com/248-501/000-024</a>
<b>software</b>		
	<p><b>Item no.: 759-333</b> WAGO-I/O-PRO</p>	<a href="http://www.wago.com/759-333">www.wago.com/759-333</a>
	<p><b>Item no.: 759-333/000-923</b> WAGO-I/O-PRO; USB-Set</p>	<a href="http://www.wago.com/759-333/000-923">www.wago.com/759-333/000-923</a>
	<p><b>Item no.: 759-911</b> WAGO-I/O-PRO; CD</p>	<a href="http://www.wago.com/759-911">www.wago.com/759-911</a>
<b>Carrier rail</b>		
	<p><b>Item no.: 210-112</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 25 mm</p>	<a href="http://www.wago.com/210-112">www.wago.com/210-112</a>

	<b>Item no.: 210-113</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-113">www.wago.com/210-113</a>
	<b>Item no.: 210-114</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; similar to EN 60715	<a href="http://www.wago.com/210-114">www.wago.com/210-114</a>
	<b>Item no.: 210-115</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; according to EN 60715; "Hole width 18 mm	<a href="http://www.wago.com/210-115">www.wago.com/210-115</a>
	<b>Item no.: 210-118</b> Steel carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715	<a href="http://www.wago.com/210-118">www.wago.com/210-118</a>
	<b>Item no.: 210-196</b> Aluminum carrier rail; 35 x 8.2 mm; 1.6 mm thick; 2 m long; unslotted; similar to EN 60715; silver-colored	<a href="http://www.wago.com/210-196">www.wago.com/210-196</a>
	<b>Item no.: 210-197</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; similar to EN 60715	<a href="http://www.wago.com/210-197">www.wago.com/210-197</a>
	<b>Item no.: 210-198</b> Copper carrier rail; 35 x 15 mm; 2.3 mm thick; 2 m long; unslotted; according to EN 60715; copper-colored	<a href="http://www.wago.com/210-198">www.wago.com/210-198</a>
	<b>Item no.: 210-504</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; slotted; galvanized; according to EN 60715	<a href="http://www.wago.com/210-504">www.wago.com/210-504</a>
	<b>Item no.: 210-505</b> Steel carrier rail; 35 x 7.5 mm; 1 mm thick; 2 m long; unslotted; galvanized; according to EN 60715	<a href="http://www.wago.com/210-505">www.wago.com/210-505</a>
	<b>Item no.: 210-506</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; unslotted; galvanized; similar to EN 60715	<a href="http://www.wago.com/210-506">www.wago.com/210-506</a>
	<b>Item no.: 210-508</b> Steel carrier rail; 35 x 15 mm; 1.5 mm thick; 2 m long; slotted; galvanized; similar to EN 60715	<a href="http://www.wago.com/210-508">www.wago.com/210-508</a>
<b>wiring and connectors</b>		
	<b>Item no.: 750-975</b> ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly; light gray	<a href="http://www.wago.com/750-975">www.wago.com/750-975</a>
	<b>Item no.: 750-977/000-011</b> Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22	<a href="http://www.wago.com/750-977/000-011">www.wago.com/750-977/000-011</a>
	<b>Item no.: 750-977/000-012</b> Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22	<a href="http://www.wago.com/750-977/000-012">www.wago.com/750-977/000-012</a>
	<b>Item no.: 750-977/000-021</b> Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24	<a href="http://www.wago.com/750-977/000-021">www.wago.com/750-977/000-021</a>
	<b>Item no.: 750-977/000-022</b> Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24	<a href="http://www.wago.com/750-977/000-022">www.wago.com/750-977/000-022</a>
	<b>Item no.: 750-978/000-011</b> Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22; Strain relief	<a href="http://www.wago.com/750-978/000-011">www.wago.com/750-978/000-011</a>



**Item no.: 750-978/000-012**  
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22; Strain relief

[www.wago.com/750-978/000-012](http://www.wago.com/750-978/000-012)



**Item no.: 750-978/000-021**  
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24; Strain relief

[www.wago.com/750-978/000-021](http://www.wago.com/750-978/000-021)



**Item no.: 750-978/000-022**  
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24; Strain relief

[www.wago.com/750-978/000-022](http://www.wago.com/750-978/000-022)



**Item no.: 750-979/000-011**  
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 22; Strain relief

[www.wago.com/750-979/000-011](http://www.wago.com/750-979/000-011)



**Item no.: 750-979/000-012**  
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 22; Strain relief

[www.wago.com/750-979/000-012](http://www.wago.com/750-979/000-012)



**Item no.: 750-979/000-021**  
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 24; Strain relief

[www.wago.com/750-979/000-021](http://www.wago.com/750-979/000-021)



**Item no.: 750-979/000-022**  
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 24; Strain relief

[www.wago.com/750-979/000-022](http://www.wago.com/750-979/000-022)

**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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.wago.com/850-836)

**shield connection**



**Item no.: 790-108**

Shield clamping saddle; 11 mm wide; diameter of compatible conductor

[www.wago.com/790-108](http://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](http://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](http://www.wago.com/790-124)



**Item no.: 790-140**

Shield clamping saddle; diameter of compatible conductor

[www.wago.com/790-140](http://www.wago.com/790-140)



**Item no.: 790-208**

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

[www.wago.com/790-208](http://www.wago.com/790-208)



**Item no.: 790-216**

Shield clamping saddle; 21.8 mm wide; 6 ... 16 mm

[www.wago.com/790-216](http://www.wago.com/790-216)



**Item no.: 790-220**

Shield clamping saddle; 30 mm wide; 6 ... 20 mm

[www.wago.com/790-220](http://www.wago.com/790-220)



## Downloads

### Documentation

#### Manual

Controller EtherNet/IP; G4; 2ETH; ECO	V 1.0.0	pdf	Download
Controller EtherNet/IP; Generation 4; 2 x ETHERNET; ECO		8.2 MB	

#### System Description

Overview on WAGO-I/O-SYSTEM 750 approvals		pdf	Download
		780.2 kB	

750 Controller, General Product Information		pdf	Download
		621.9 kB	

Design Notes	V 2.0.0	pdf	Download
Basic conditions and recommendations for higher operational safety		1.5 MB	

Use in Hazardous Environments	V 1.0.0	pdf	Download
Term definition, marking and installation regulations		1.0 MB	

#### Additional Information

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

## Device Files

### Device Description File

750-919; EDS-Dateien für Ethernet/IP / 750-363, 750-823, 750-893	30-Jul-2019	zip	Download
		12.1 kB	

750-914; EDS file for CANopen / 750, 752 and 767 Series	XR	zip	Download
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## Product family

### Controller 750

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Subject to changes.

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