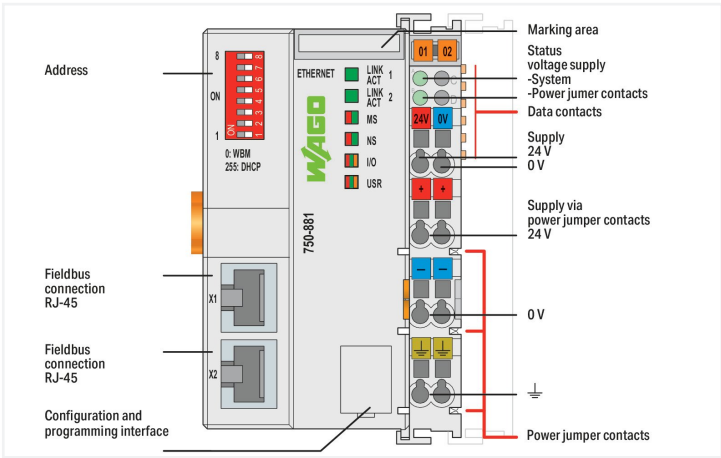
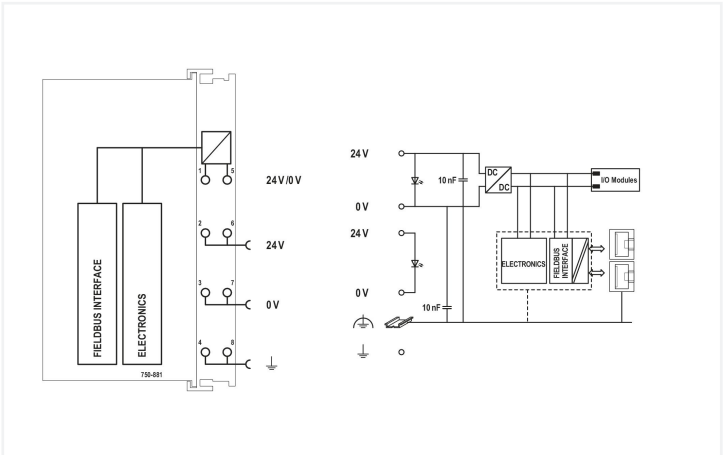




Color: ■ light gray



Note:
For this item, a successor is available: Modbus TCP [750-891](#); EtherNet/IP™ 750-893

The ETHERNET Controller connects the modular WAGO I/O System to ETHERNET.

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, eliminating the need for 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 both EtherNet/IP and MODBUS networks. It also supports a wide variety of standard ETHERNET protocols (HTTP, BootP, DHCP, DNS, SNTP, SNMP, FTP).

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

The IEC 61131-3 programmable controller is multitasking-capable and features a capacitor-backed RTC.

Technical data	
Communications	EtherNet/IP™ Modbus (TCP, UDP) ETHERNET
ETHERNET protocols	HTTP BootP DHCP DNS SNTP FTP SNMP
Visualization	Web-Visu
CPU	32 bits



Technical data	
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
Transmission rate	10/100 Mbit/s
Transmission medium (communication/fieldbus)	Twisted pair S-UTP; 100 Ω; Cat. 5; 100 m maximum cable length
Transmission performance	Class D per EN 50173
Program memory	1024 KB
Data memory	512 KB
Non-volatile software memory	32 KB
Number of modules per node (max.)	250
Number of modules without a bus extension (max.)	64
Input and output process image (fieldbus) max.	1020 words/1020 words
Indicators	LED (LINK/ACT) green: Network connection via ports 1 ... 2; LED (MS, NS) red/green: Status of node, network; LED (I/O, USR) red/green/orange: Local data bus 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)	90 %
Current consumption (5 V system supply)	450 mA
Total current (system supply)	1700 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	EtherNet/IP™: 2 x RJ-45; Modbus (TCP, UDP): 2 x RJ-45
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 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	61.5 mm / 2.421 inches
Height	71.9 mm / 2.831 inches
Depth	100 mm / 3.937 inches



Mechanical data	
Weight	159.2 g
Color	light gray
Housing material	Polycarbonate; polyamide 6.6
Conformity marking	CE

Environmental requirements	
Ambient temperature (operation)	0 ... +55 °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.)
Relative humidity (without condensation)	95 %
Mounting position	Horizontal left, horizontal right, horizontal top, horizontal bottom, vertical top and vertical bottom
Mounting type	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 61000-6-3, marine applications
Exposure to pollutants	per IEC 60068-2-42 and IEC 60068-2-43
Fire load	3.681 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 (I/O System)
eCl@ss 10.0	27-24-26-07
eCl@ss 9.0	27-24-26-07
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
GTIN	4050821086826
Customs tariff number	85371091990
End of Sale	2019-12-15
End of Production	2019-12-20
End of Delivery	2019-12-30
End of Service and Repair	2021-12-14

Environmental Product Compliance	
CAS-No.	12060-00-3 1303-86-2 1317-36-8 25550-51-0 693-98-1 7439-92-1 79-94-7
REACH Candidate List Substance	4-Methyl-1,2-cyclohexanedicarboxylic anhydride Diboron trioxide Lead Lead monoxide Lead titanium oxide (PbTiO3) 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 2-methylimidazole
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II



Environmental Product Compliance	
SCIP notification number (Austria)	b8ac8e94-063f-4789-afbc-bcb5b0213c48
SCIP notification number (Belgium)	09651184-f340-4358-b6a0-dd81e325e932
SCIP notification number (Bulgaria)	372cd743-4230-4326-9043-835731aa39fc
SCIP notification number (Czech Republic)	aa8f9686-32cc-426f-abfc-114e2c83827b
SCIP notification number (Denmark)	e810af6b-e2f0-4468-9a38-64bc26a8dd5f
SCIP notification number (Finland)	44252bb3-8bf7-4ebc-a9ea-9aace10263ff
SCIP notification number (France)	ed4f3e31-ea97-43eb-8279-ee100ca4f84b
SCIP notification number (Germany)	5b4c61ae-2b93-4b27-aeb0-87540f434897
SCIP notification number (Hungary)	93e0b02d-c9dc-4649-985a-dd23b53c47b5
SCIP notification number (Italy)	2a25366e-fdd1-4a28-beb1-687cc3bfa1bd
SCIP notification number (Netherlands)	7067cfef-39a8-43bc-82aa-f1812418a48a
SCIP notification number (Poland)	e1aca8ff-b61a-4128-9ecd-61f537ecc917
SCIP notification number (Romania)	df060c69-bdaf-41a9-add9-68bf1b87f3ba
SCIP notification number (Sweden)	0f6b53fc-14f9-460c-8ee0-fb2c8e4b6ed2

Approvals / Certificates

General approvals		
		
Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199

Declarations of conformity and manufacturer's declarations		
Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications		
		
Approval	Standard	Certificate Name
DNV DNV GL SE	DNV-CG-0339,Aug.2021	TAA0000194
KR Korean Register of Shipping	-	KR HMB05880-AC001

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 LOCATIONS)	UL 121201	E198726



Downloads			
Environmental Product Compliance			
Compliance Search			
Environmental Product Compliance 750-881			↓

Documentation			
Manual		Quick-Start Guide	
Product Manual ETHER-NET Programmable Fieldbus Controller	V 1.5.0	pdf	↓
		13126.29 KB	
Product Manual WA-GOupload	V 10.0.0 30.10.2023	pdf	↓
		10739.17 KB	
Product Manual WAGO MODBUS Master Configurator	V 1.1.0	pdf	↓
		1761.59 KB	

Bid Text			
750-881	19.02.2019	xml	↓
		6.47 KB	
750-881	19.05.2015	doc	↓
		28.50 KB	

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf	↓
		159.76 KB	

Application Notes			
Application Note CoDeSys 2.3		Application Note CoDeSys 2.3	
HART Tool Routing via ETHERNET with 750-820x/750-88x and CODESYS 2.3 (a116120)	1.0.0 22.03.2019	pdf	↓
		3798.36 KB	
Using the web visualization with Java™ runtime environment (JRE, JVM) 7 update 51 (7u51) (a500690)	1.2.4 26.02.2019	zip	↓
		4896.43 KB	
Application Note PowerMeasurement_03 Library	19.01.2011 19.03.2012	zip	↓
		932.08 KB	
Application Note DaylightSaving	02.04.07 08.11.2011	zip	↓
		666.41 KB	
Application Note: DMX_02	26.04.2017 26.04.2017	zip	↓
		733.43 KB	
HVAC System Macros	10.03.2017 15.03.2019	zip	↓
		13252.92 KB	
Application Note: Mp-Bus_03 Library	2020-08-14 14.08.2020	zip	↓
		513.66 KB	
Connection of a Thermokon Thanos SR L MODBUS room control unit to the WAGO-I/O-SYSTEM	02.05.2013 13.05.2013	zip	↓
		305.89 KB	
Anbindung der HKW-Elektronik Wetterprognose-Station WS-K xx T ModBus	1.1 07.07.2017	zip	↓
		762.78 KB	

Application Note Scheduler_03.lib	20.05.2011 20.05.2011	zip	↓
		1717.92 KB	
Application Note Connecting with an iPod Touch	30.03.2011 28.10.2011	zip	↓
		428.79 KB	
GRUNDFOS GENiBus interface, application note	20.03.2017 20.03.2017	zip	↓
		279.86 KB	
Connection of Thermokon Multi-function room control units WRF 08	10.04.2019 10.04.2019	zip	↓
		855.84 KB	
Connection of DMX devices to the WAGO-I/O-SYSTEM via the ArtNet-DMX STAGE-PROFI 1.1	11.01.2013 11.01.2013	zip	↓
		1450.63 KB	
Connection of Thermokon Multi-function room control units WRF 06	10.04.2019 08.04.2016	zip	↓
		826.10 KB	
Application Note for the 750-494 3-Phase Power Measurement Module	24.01.2014 11.11.2014	zip	↓
		1629.99 KB	
Application Note: EnOcean_06 Library	30.11.2016 30.11.2016	zip	↓
		822.25 KB	
Application Note for the 750-495 3-Phase Power Measurement Module	24.01.2014 24.01.2014	zip	↓
		1806.18 KB	



Application Note CoDeSys 2.3			
Application Note Weather Station Elsner P03 Modbus	01.12.2011 28.10.2011	zip 269.09 KB	↓
Application note: DALI 753-647 Configuration Interface	1.0.2 29.04.2019	zip 3032.71 KB	↓
HLK-Anlagenmakros für TRIC	2015-07-10 10.07.2015	zip 74963.43 KB	↓
Application Note Library ModuleAccess_01	05.01.2016 29.01.2016	zip 1001.22 KB	↓

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 750-881	EPLAN Data Portal 750-881
↓	↓
	WSCAD Universe 750-881
	↓
	ZUKEN Portal 750-881
	↓

Runtime Software			
Firmware			
0750-0881, Controller ETHERNET	V 17 22.07.2022	zip 1503.10 KB	↓

Libraries			
Library			
WagoLibFTPS_01	1.17 09.11.2020	zip 401.90 KB	↓
WagoLibConfigETH_01	1.0.0	pdf 381.48 KB	↓

1 Compatible Products

1.1 Optional Accessories

1.1.1 Cables and connectors

1.1.1.1 Connector plug



[Item No.: 750-979/000-011](#)
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 22; Strain relief



[Item No.: 750-979/000-021](#)
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568A; AWG 24; Strain relief



[Item No.: 750-979/000-012](#)
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 22; Strain relief



[Item No.: 750-979/000-022](#)
Connector ETHERNET; RJ-45; Cat. 6A; angled; Code T568B; AWG 24; Strain relief



[Item No.: 750-977/000-011](#)
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22



[Item No.: 750-978/000-011](#)
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 22; Strain relief



[Item No.: 750-977/000-021](#)
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24



[Item No.: 750-978/000-021](#)
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568A; AWG 24; Strain relief



1.1.1.1 Connector plug



Item No.: 750-977/000-012
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 22



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



Item No.: 750-977/000-022
Connector ETHERNET; RJ-45; Cat. 6A; straight; Code T568B; AWG 24



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



Item No.: 750-975
ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly

1.1.2 Communication

1.1.2.1 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

1.1.3 DIN-rail

1.1.3.1 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; similar 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; similar 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

1.1.4 Marking

1.1.4.1 Group marker carrier



Item No.: 750-106
Group marker carrier



1.1.4.2 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 stretchable; plain; snap-on type; green
 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		

1.1.4.3 Marker carrier

 Item No.: 750-103 Group marker carrier

1.1.5 Shield termination

1.1.5.1 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	



1.1.6 Software

1.1.6.1 Basic version



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

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

1.1.7 System enclosure

1.1.7.1 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); Wx-
HxD (164x100x164 mm); 9 x M12, 4 x M20



Item No.: 850-835
IP65 enclosure; Polyester (RAL 7032); Wx-
HxD (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 flan-
ge plate



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



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



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