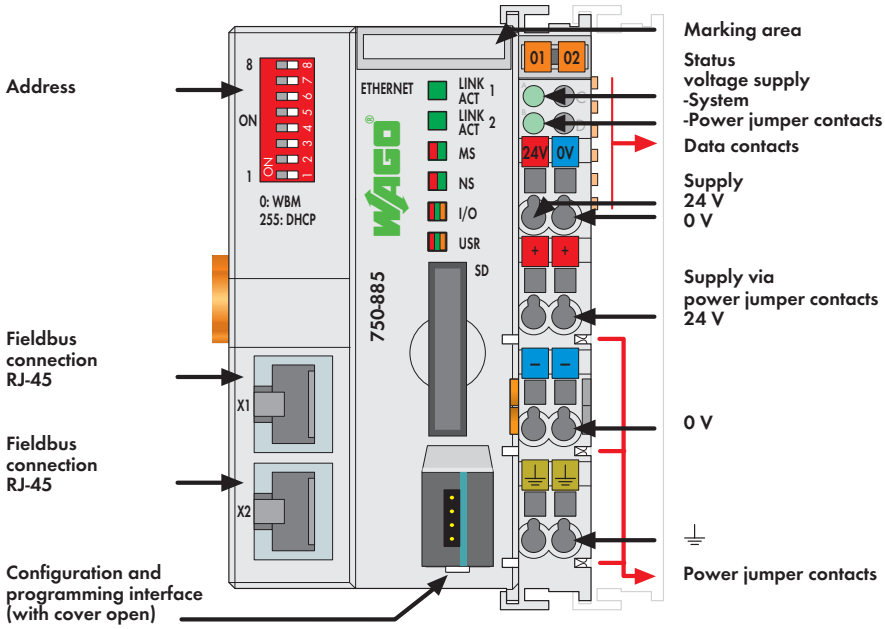
PLC - ETHERNET Programmable Media Redundancy Fieldbus Controller

32-bit CPU, multitasking, with memory card slot



In conjunction with the WAGO-I/O-SYSTEM, the 750-885 ETHERNET PLC serves ETHERNET networks requiring fast and safe media redundancy. The PLC supports all digital, analog and specialty modules found within the 750/753 Series, and is suitable for data rates of 10/100 Mbit/s.
Media redundancy is achieved by operating the controller in two separate networks – which is accessible via two different IP addresses (including two MAC IDs). Cross communication between separate channels is not possible. The two separate ETHERNET interfaces allow redundant connection of two transmission paths (no hub or switch required). Both interfaces support Auto-Negotiation and Auto-MDI(X). The DIP switch configures the last byte of both default IP addresses and may be used for IP address assignment (DHCP, BootP).

The media redundancy PLC is designed for fieldbus communication via MODBUS/TCP in ETHERNET networks. It also supports a wide variety of standard ETHERNET protocols (e.g., HTTP, BootP, DHCP, DNS, FTP).
An integrated Web server provides configuration options to the user, while displaying PLC status information.
The IEC 61131-3 programmable controller is multitasking-capable and features a battery-backed RTC.
A data memory of 1 Mbyte is available.
For memory expansion, the 750-885 PLC is equipped with a removable memory card slot.

Description	Item No.	Pack. Unit
ETHERNET MR/SD Fieldbus Controller	**750-885**	1
ETHERNET MR/SD Fieldbus Controller/T	**750-885/025-000**	1
Extended temperature range: -20 °C ... +60 °C		

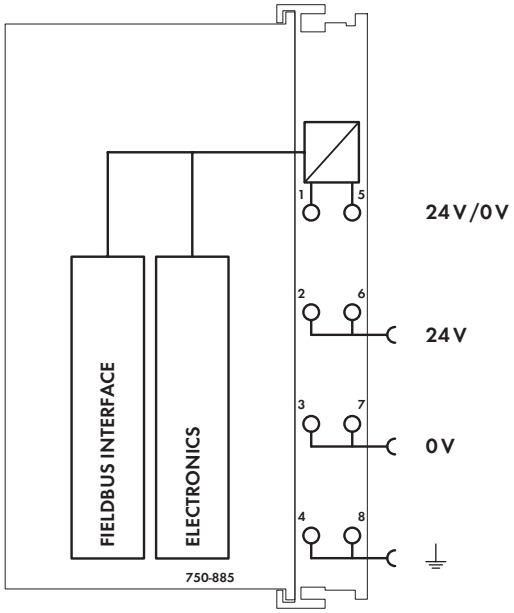
Accessories	Item No.	Pack. Unit
SD memory card, 2 GB	**758-879/000-001**	1
WAGO-I/O-PRO V2.3, RS-232 kit	**759-333**	1
Miniature WSB Quick marking system		
plain	**248-501**	5

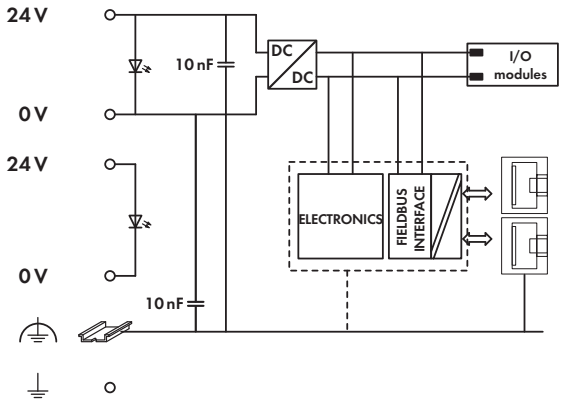
Approvals

Conformity marking	CE
Marine applications (versions upon request)	GL
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb, II 3 G Ex nA IIC T4 Gc, II 3 D Ex tc IIIC T135°C Dc
IECEx TUN 09.0001 X	Ex d I Mb, Ex nA IIC T4 Gc, Ex tc IIIC T135°C Dc

System Data

No. of controllers connected to Master	limited by ETHERNET specification
Transmission medium	Twisted Pair S-UTP
	100 Ω, Cat 5;
	Max. line length: 100 m
Baud rate	10/100 Mbit/s
Transmission performance	Class D acc. to EN 50173
Buscoupler connection	2 x RJ-45
Protocols	EtherNet/IP, MODBUS/TCP (UDP), HTTP,
	BootP, DHCP, DNS, SNTP, FTP, SNMP
Programming	WAGO-I/O-PRO V2.3
IEC 61131-3	IL, LD, FBD (CFC), ST, FC
Redundancy function	via two logically separated ETHERNET
	interfaces
SD card slot	Push-push mechanism, sealable cover lid
Type of memory card	SD and SDHC up to 32 Gbytes (All
	guaranteed properties are only valid in
	combination with the WAGO 758-879/
	000-001 memory card.)





Technical Data

Number of I/O modules	64
with bus extension	250
Max. input process image	1020 words
Max. output process image	1020 words
Configuration	via PC
Program memory	1024 Kbytes
Data memory	1024 Kbytes
Non-volatile memory (retain)	32 Kbytes
Power supply	24 V DC (-25 % ... +30 %)
Input current typ. at rated load (24 V)	500 mA
Efficiency of the power supply (typ.) at	
nominal load (24 V)	90 %
Internal current consumption (5 V)	450 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500V system/supply

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	62 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	164 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-3, marine applications