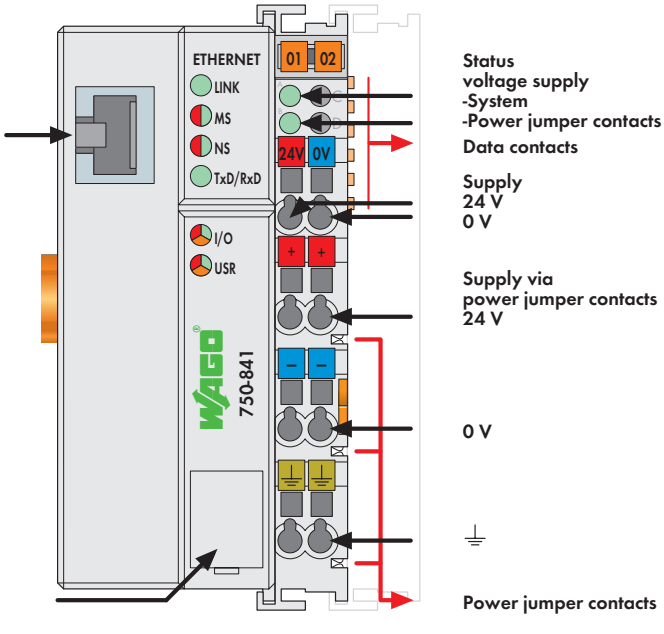
ETHERNET TCP/IP Programmable Fieldbus Controller

10/100 Mbit/s; digital and analog signals



This fieldbus controller connects the WAGO-I/O-SYSTEM as a slave to the ETHERNET fieldbus. The fieldbus controller is capable of supporting all I/O modules.
The fieldbus controller automatically configures, creating a local process image which may include analog, digital or specialty modules. Analog and specialty module data is sent via words and/or bytes, digital data is sent bit by bit.
This controller is suitable for data rates of 10 Mbit /s and 100 Mbit /s. It is programmable according to IEC 61131-3 using 512 KB program memory, 256 KB data memory and 24 KB retentive memory. This 32-bit based CPU is capable of multitasking and has a real-time clock.
The controller offers many different application protocols which can be used for data acquisition or control (MODBUS,ETHERNET /IP) or for system managing and diagnostics (HTTP, BootP, DHCP, DNS, SNTP, FTP, SNMP and SMTP). HTML pages can be placed on an internal server for use in Web-based applications. Programs can be directly accessed via XML and ASP. Library functions for mail, SOAP, ASP, IP configurations, ETHERNET sockets and filesystem complement the product profile.

Description	Item No.	Pack. Unit
ETHERNET Controller 100 MBit	**750-841**	1
ETHERNET Controller 100 MBit/s/T	**750-841/025-000**	1
Operating temperature -20 °C ... +60 °C		

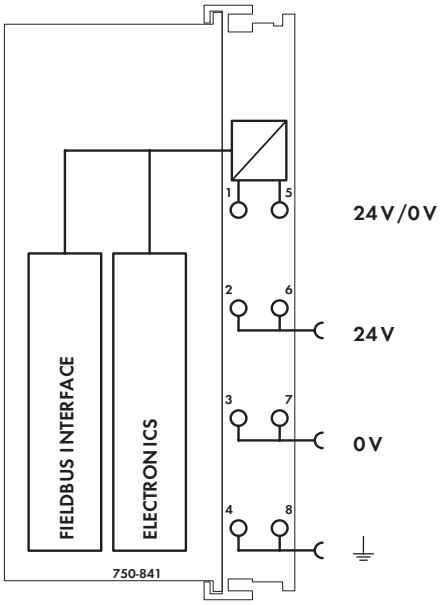
Accessories	Item No.	Pack. Unit
WAGO-I/O-PRO CAA	**759-333**	1
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see www.wago.com	

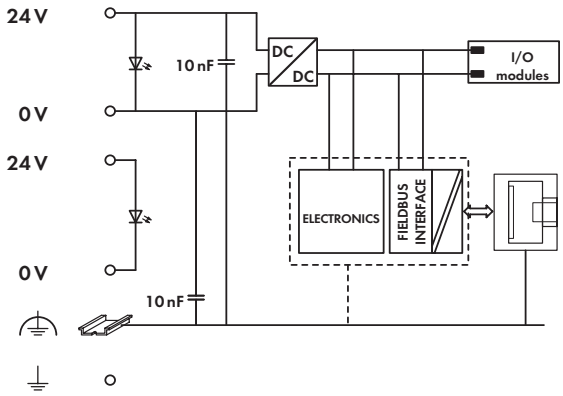
Approvals

CE		
Shipbuilding	see "Approvals Overview" in section 1	
UL508		
ANSI/ ISA 12.12.01	Class I Div 2 ABCD T4	750-841
EN 60079-0, -1, -15	I M2 Ex d I	750-841*
EN 61241-0, -1	II 3 G Ex nA IIC T4	750-841*
	II 3 D Ex tD A22 IP6X T135°C	750-841*
	* Permissible operating temperature 0 °C ... +60 °C	

Note: For additional information on regulations and test results, see Section 12.

System Data	
No. of controllers connected to Master	limited by ETHERNET specification
Transmission medium	Twisted Pair S-UTP 100 Ω cat. 5
Max. length of fieldbus segment	100 m between hub station and 750-841; max. length of network limited by ETHERNET specification
Baud rate	10/100 Mbit/s
Buscoupler connection	RJ-45
Protocols	MODBUS/TCP (UDP), EtherNet/IP, HTTP, BootP, DHCP, DNS, SNTP, FTP, SNMP, SMTP
Programming	WAGO-I/O-PRO CAA
IEC 61131-3	IL, LD, FBD, ST, FC





Technical Data

Number of I/O modules	64
with bus extension	250
Fieldbus	
Max. input process image	2 Kbytes
Max. output process image	2 Kbytes
Max. input variables	512 bytes
Max. output variables	512 bytes
Configuration	via PC
Program memory	512 Kbytes
Data memory	256 Kbytes
Non-volatile memory (retain)	24 Kbytes (16 Kbytes retain, 8 Kbytes flag)
Voltage supply	24 V DC (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Efficiency of the power supply	87 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Current via power jumper contacts (max.)	10 A DC

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 2.5 mm² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	184 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 CE-Immunity to interference	acc. to EN 61000-6-2 (2005)
EMC CE-Emission of interference	acc. to EN 61000-6-4 (2007)
EMC marine applications - Immunity to interference	acc. to Germanischer Lloyd (2003)
EMC marine applications - Emission of interference	acc. to Germanischer Lloyd (2003)