




## Product information OpenOCTOPUS Fast Ethernet - OCTOPUS 16M

Industrial Ethernet:Waterproof IP67/IP54 Switches:OpenOCTOPUS:OpenOCTOPUS Fast Ethernet  
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Name	OpenOCTOPUS Fast Ethernet
	
	Managed IP 65 / IP 67 switch in accordance with IEEE 802.3, store-and-forward-switching, software layer 2 Professional, electrical Fast-Ethernet (10/100 MBit/s) M12-ports
<b>Delivery informations</b>	
Availability	available
<b>Product description</b>	
Description	Managed IP 65 / IP 67 switch in accordance with IEEE 802.3, store-and-forward-switching, software layer 2 Professional, electrical Fast-Ethernet (10/100 MBit/s) M12-ports
Port type and quantity	16 ports in total; uplink ports: 10/100 BASE-TX, M12 "D"-coding, 4-pole; 16 x 10/100 BASE-TX; TP-cable, auto-crossing, auto-negotiation, auto-polarity.
Type	OCTOPUS 16M
Order No.	943 912-001
<b>More Interfaces</b>	
Power supply/signaling contact	1 x M12 5-pin connector, A coding, 1 x M12 5-pin connector, A coding
V.24 interface	1 x M12 4-pin connector, A coding
USB interface	1 x M12 5-pin socket, A coding
<b>Network size - length of cable</b>	
Twisted pair (TP)	0 - 100 m
<b>Network size - cascading</b>	
Line - / star topology	any
Ring structure (HIPER-Ring) quantity switches	50 (reconfiguration time < 0.3 sec.)
<b>Power requirements</b>	
Operating voltage DC	24/36/48 VDC -60% / +25% (9,6..60 VDC)
Current consumption at 48 V DC	190 mA
<b>Software</b>	
Management	Serial interface V.24 web-interface, Telnet, SSHv2, HTTP, HTTPS, TFTP, SFTP, SNMP v1/v2/v3, Traps
Diagnostics	LEDs (power 1, power 2, link status, data, redundancy manager, error) cable tester, signalling contact, RMON (statistics, history, alarms, events), SysLog support, port mirroring
Configuration	Command Line Interface (CLI), auto-configuration adapter, TELNET, BootP, DHCP Option 82, HiDiscovery
Security	Port Security (IP and MAC), SNMPv3, SSHv3, SNMP access settings (VLAN/IP), IEEE 802.1X authentication
Redundancy functions	redundant power supply
Other services	4 QoS queues, user priority (IEEE 802.1D/p), VLAN (IEEE 802.1Q), unknown multicast filtering, multicast support (IGMP Snooping/Querier, GMRP), broadcast limiter per port, ingress and egress packet limiter, Flow Control IEEE 802.3x, LLDP (topology discovery IEEE 802.1AB), Link Aggregation (IEEE 802.3ad), buffered real-time clock, PTP support (Precision Time Protocol) (IEEE 1588 client for system clock only), SNTP support (Simple Network Time Protocol, client/server)
<b>Ambient conditions</b>	
Operating temperature	-40 °C ... 70 °C
Storage/transport temperature	-40 °C ... 85 °C
Relative humidity (also condensing)	10 % ... 100 %
MTBF	27.6 years; MIL-HDBK 217F: Gb 25 °C
<b>Mechanical construction</b>	
Dimensions (W x H x D)	261 mm x 189 mm x 70 mm
Mounting	Wall mounting
Weight	1900 g
Protection class	IP65, IP67
<b>Mechanical stability</b>	
IEC 60068-2-27 shock	15 g, 11 ms duration, 18 shocks



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<b>IEC 60068-2-6 vibration</b>	1 mm, 2 Hz-13.2 Hz, 90 min.; 0.7 g, 13.2 Hz-100 Hz, 90 min.; 3.5 mm, 3 Hz-9 Hz, 10 cycles, 1 octave/min.; 1 g, 9 Hz-150 Hz, 10 cycles, 1 octave/min
<b>EMC interference immunity</b>	
<b>EN 61000-4-2 electrostatic discharge (ESD)</b>	6 kV contact discharge, 8 kV air discharge
<b>EN 61000-4-3 electromagnetic field</b>	20 V/m (80-3000 MHz)
<b>EN 61000-4-4 fast transients (burst)</b>	2 kV power line, 2 kV data line
<b>EN 61000-4-5 surge voltage</b>	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line
<b>EN 61000-4-6 conducted immunity</b>	3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)
<b>EMC emitted immunity</b>	
<b>FCC CFR47 Part 15</b>	FCC 47 CFR Part 15 Class A
<b>EN 55022</b>	EN 55022 Class A
<b>Approvals</b>	
<b>Basis Standard</b>	CE, C-Tick
<b>Safety of industrial control equipment</b>	cUL 508, GOST-R, CCC
<b>Scope of delivery and accessories</b>	
<b>Scope of delivery</b>	M12-connector (ELWIKA 5012 PG7) for power connection, description and operating instructions
<b>Note</b>	Please note that some recommended accessory parts only support a temperature range from -25 °C to +70 °C and might limit the possible operating conditions for the entire system.
<b>Accessories to order separately</b>	M12 connector, "D"-coded (934 445-001); 2 m cordset with M12-connector, "D"-coded (934 578-001); 5 m cordset with M12-connectors, "D"-coded (934 578-002); 10 m cordset with M12-connectors, "D"-coded (934 578-003); Bulkhead M12 "D"-coded to RJ45 (934 498-001); OCTOPUS dust cover set (25 pieces) (942 057-001).OCTOPUS terminalcable (943 902-001), Autokonfigurationsadapter ACA21-M12 EEC (943 913-002)

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