



**Product:** [OCTOPUS 16M-8PoE](#) 

Life Cycle Status: Limited Availability/Passive

Replaced by: [OS20/24/30/34 - OCTOPUS II configurator](#)

Managed IP67 PoE-Switch, 16 ports, supply voltage 48 VDC, Software L2P, train approvals

### Product Description

Managed IP 65 / IP 67 switch in accordance with IEEE 802.3, store-and-forward-switching, software layer 2 Professional, power sourcing equipment in accordance with IEEE 802.3af (PoE inline power), electrical Fast-Ethernet (10/100 MBit/s) M12-ports

### Technical Specifications

#### Product description

Type:	OCTOPUS 16M-8PoE
Description:	The OCTOPUS switches are suited for outdoor applications with rough environmental conditions. Because of the branch typical approvals they can be used in transport applications (E1), as well as in trains (EN 50155) and ships (GL).
Part Number:	943960001
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, thereof 8 x 10/100 BASE-TX PoE (phantom power) TP-cable, auto-crossing, auto-negotiation, auto-polarity.

#### Product Life Cycle

Life Cycle:	Limited Availability/Passive - the product is entering End of Life
Availability:	Passiv
Last Order Date:	2023-12-31
Last Delivery Date:	2024-06-30

#### More Interfaces

Power supply/signaling contact:	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

#### Network size - length of cable

Twisted pair (TP):	0-100 m
--------------------	---------

#### Network size - cascading

Line - / star topology:	any
Ring structure (HIPER-Ring) quantity switches:	50 (reconfiguration time 0.3 sec.)

#### Power requirements

Operating Voltage:	48 VDC (46 .. 57 VDC)
Power consumption:	max. 145.0 W with 120 W PoE output
Power output in BTU (IT)/h:	max. 62
Redundancy functions:	redundant power supply

#### Software

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, signaling 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
-----------	---

## Ambient conditions

MTBF (Telecordia SR-332 Issue 3) @ 25°C:	22.2 Years
Operating temperature:	-40-+70 °C
Note:	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.
Storage/transport temperature:	-40-+85 °C
Relative humidity (also condensing):	10-100 %

## Mechanical construction

Dimensions (WxHxD):	261 mm x 189 mm x 70 mm
Weight:	1900 g
Mounting:	Wall mounting
Protection class:	IP65, IP67

## Mechanical stability

IEC 60068-2-6 vibration:	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
IEC 60068-2-27 shock:	15 g, 11 ms duration, 18 shocks

## EMC interference immunity

EN 61000-4-2 electrostatic discharge (ESD):	6 kV contact discharge, 8 kV air discharge
EN 61000-4-3 electromagnetic field:	20 V/m (80-3000 MHz)
EN 61000-4-4 fast transients (burst):	2 kV power line, 2 kV data line
EN 61000-4-5 surge voltage:	power line: 2 kV (line/earth), 1 kV (line/line), 1 kV data line
EN 61000-4-6 Conducted Immunity:	3 V (10 kHz-150 kHz), 10 V (150 kHz-80 MHz)

## EMC emitted immunity

EN 55032:	EN 55032 Class A
FCC CFR47 Part 15:	FCC 47CFR Part 15, Class A

## Approvals

Basis Standard:	CE, EAC, Australian Regulatory Compliance Mark (RCM)
Railway norm:	EN 50155, EN 45545-2, EN 50121-4
Transportation:	E1

## Reliability

Guarantee:	60 months (please refer to the terms of guarantee for detailed information)
------------	---

## Scope of delivery and accessories

Accessories to Order Separately:	ACA22-M12 (EEC) (942 125-001), 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 metal dust cover set (25 pieces) (942 057-001), OCTOPUS plastic dust cover set (25 pieces) (942 057-002)*
Scope of delivery:	1 x Device, 1 x connector for power connection, General safety instructions

## Further Instructions

Product Documentation:	<a href="https://www.doc.hirschmann.com">https://www.doc.hirschmann.com</a>
Certificates:	<a href="https://www.doc.hirschmann.com/certificates.html">https://www.doc.hirschmann.com/certificates.html</a>
Software Download:	<a href="https://hirschmann-support.belden.com/en-US/downloads">https://hirschmann-support.belden.com/en-US/downloads</a>

## History

Update and Revision:	Revision Number: 0.112 Revision Date: 06-19-2024
----------------------	--

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.