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Product Bulletin

OCTOPUS 8TX-EEC
OCTOPUS 8TX PoE-EEC

Compact unmanaged Ethernet Switches

The two unmanaged Ethernet Switches with protective metal housing are designed for reliable and secure data transmission and video streaming in harsh industrial environments.

- Master **high network loads** to meet high throughput and low latency requirements. Required for applications with high-resolution IP cameras.
- **Enhance IT security** by disabling unused ports or limiting the network load per port.
- **PoE+ for end devices is generated from the standard 24 V** power supply, eliminating the need for an external PoE power supply.

Key Features

- Powerful switch for video streaming
- 8 configurable Fast Ethernet ports
- 7 PoE+ ports with 35 W total power
- Configuration options for QoS, Flow Control, PoE classes, etc.
- Redundant power supply
- Temperature range: -40 °C to +70 °C
- Metal housing
- Shock and vibration resistant M12 connectors
- Protection class IP67
- Installation outside the protective cabinet
- Application-specific approvals:
  EN 50155, EN 50121-4, EN 45545 for fire protection in trains and e1 for use in motor vehicles

The switches are characterized by a compact, easy-to-install design. They resist harsh environmental conditions such as extreme temperatures, high vibration, water and dust.

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Your Benefits

Compact and Easy-to-install Device

Able to be mounted anywhere, without protective cabinets, the OCTOPUS 8TX-EEC and OCTOPUS 8TX PoE-EEC are a space-saving solution for smaller industrial networks. The switches come ready to use and are quick and simple to put into operation.

Reliable and Safe Data Transmission

The two switches are optimized for video streaming in harsh industrial environments. As part of the OCTOPUS family, they provide reliable data transmission. Features, like QoS or Jumbo Frames can be activated. Port disabling and broadcast limiting further increases IT security measures. Thus these switches are an ideal solution for small industrial networks with high requirements for data throughput and security. The PoE+ version reduces the cabling effort, because the data cable is simultaneously used for the power supply of the end devices.

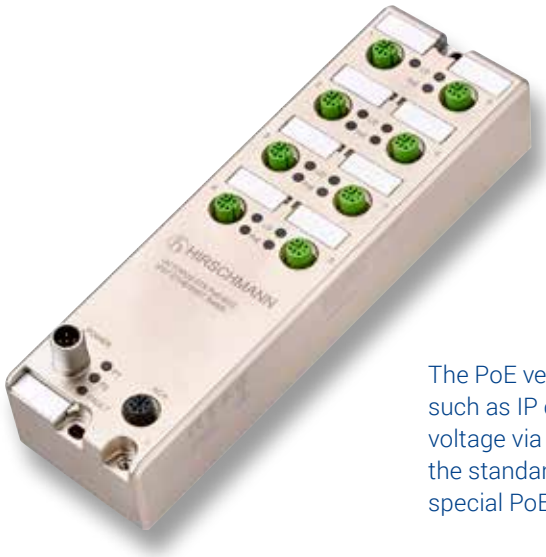
Applications

The OCTOPUS 8TX-EEC and the OCTOPUS 8TX PoE-EEC are an ideal solution for engineers, system integrators and machine builders looking for a ruggedized, easy-to-use switch in areas where space is a premium.

- Industrial applications needing a device that can be installed in tight locations and without cabinet housing
- Various transportation settings, including mass transit systems, rail rolling stock and road vehicles
- Small networks in automation and mechanical engineering with cost advantages through unmanaged switches
- Withstand exposure to harsh operating conditions, including extreme temperatures, high vibration, water and dust

Markets

Transportation, Automation, Machine building, Automotive settings



The PoE version provides terminals such as IP cameras with the operating voltage via the data line. It works with the standard voltage 24 V. There is no special PoE power supply necessary.

Technical Information

Product Description		
Type	**OCTOPUS 8TX-EEC**	**OCTOPUS 8TX PoE-EEC**
Description	Configurable IP 67 switch in accordance with IEEE 802.3, store-and-forward-switching, Ethernet (10 Mbit/s) and Fast-Ethernet (100 Mbit/s)	Configurable IP 67 switch in accordance with IEEE 802.3, PoE+ in accordance with IEEE 802.3at, store-and-forward-switching, Ethernet (10 Mbit/s) and Fast-Ethernet (100 Mbit/s)
Port Type and Quantity	8 x 10/100 BASE-TX, M12 D coding, 4-pole, TP cable, auto-crossing, auto-negotiation, auto-polarity	8 x 10/100 BASE-TX thereof 7 PoE+, M12 D coding, 4-pole, TP cable, auto-crossing, auto-negotiation, auto-polarity
Order No.	942 150-001	942 151-001
More Interfaces		
Power Supply/Signaling Contact	1 x M12 5-pin connector, A coding/no signal contact	
USB Interface	1 x M12 5-pin socket, A coding	
V.24 Interface	n.a.	
Network Size - Length of Cable		
Twisted Pair (TP)	0 to 100 m	
Network Size - Cascadibility		
Line-/Star Topology	Any	
Ring Structure (HIPER-Ring)	n.a.	
Power Requirements		
Operating Voltage	24 VDC (9 .. 32 VDC)	24 VDC (18 .. 32 VDC)
Current Consumption at 24 V DC	180 mA	1,8 A
Power Consumption	max. 4,2 W	max. 44 W
Software		
Management	n.a.	
Diagnostics	LEDs (power, link status, data)	LEDs (power, link status, data, PoE-status)
Configuration	Optional through Autoconfigurationadapter ACA	
Security	n.a.	
Other Services	n.a.	
Redundancy Functions	n.a.	
Ambient Conditions		
Operating Temperature	-40 °C to +70 °C	
Storage/Transport Temperature	-40 °C to +85 °C	
Operating Hight	3000 m (700 hPa)	
Relative Humidity (also condensing)	5% to 100%	
MTBF	www.hirschmann.com	
Mechanical Construction		
Dimensions (W x H x D)	61 mm x 201 mm x 31 mm	61 mm x 201 mm x 46 mm
Mounting	Wall mounting	
Weight	470 g	910 g
Protection Class	IP65, IP67	
Approvals		
Safety of Industrial Control Equipment	UL 61010-1, UL 61010-2-201	
Vehicles, Trains and Along Track	e1, EN 50155, EN 45545, EN 50121-4	
Scope of Delivery and Accessories		
Scope of Delivery	M12-connector (ELWIKA 5012 PG7) for power connection, description and operating instructions, protective caps on M12 ports (Ethernet/power supply)	
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)*	

NOTE: These are the prominent technical specifications. For complete technical specifications visit: www.hirschmann.com

* Please note that some recommended accessory parts only support a temperature range from -40 °C to +70 °C and might limit the possible operating conditions for the entire system. Specially designed connector types with protection class IP67 and extended temperature range are available on request. Furthermore unsealed accessories like RJ45 adapters or terminal access cables are certainly not suitable inside IP67 areas.

Belden Competence Center

As the complexity of communication and connectivity solutions has increased, so have the requirements for design, implementation and maintenance of these solutions. For users, acquiring and verifying the latest expert knowledge plays a decisive role in this. As a reliable partner for end-to-end solutions, Belden offers expert consulting, design, technical support, as well as technology and product training courses, from a single source: Belden Competence Center. In addition, we offer you the right qualification for every area of expertise through the world's first certification program for industrial networks. Up-to-date manufacturer's expertise, an international service network and access to external specialists guarantee you the best possible support for products.

Irrespective of the technology you use, you can rely on our full support – from implementation to optimization of every aspect of daily operations.

Always Stay Ahead with Belden

In a highly competitive environment, it is crucial to have reliable partners who add value to your business. When it comes to signal transmissions, Belden is the No. 1 solutions provider. We know your business and want to understand your specific challenges and goals to show how effective signal transmission solutions can push you ahead of the competition. By combining the strengths of our five leading brands, Belden, GarrettCom, Hirschmann, Lumberg Automation and Tofino Security, we are able to offer the integrated solution you need. Today, it may be a single cable, switch or connector, to solve a specific issue; tomorrow, it can be a complex range of integrated applications, systems and solutions. With the rise in smart, connected devices brought on by the Industrial Internet of Things (IIoT), together, we can make sure your infrastructure is ready to handle and make sense of the influx of data. Transform your business now with instant access to information, and make your vision a reality. Visit info.belden.com/iiot to learn more.

About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

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