HIRSCHMANN
A **BELDEN** BRAND

NP 1061HE

Hirschmann™ OCTOPUS PoE with Integrated Power Supply

The robust Hirschmann™ OCTOPUS switches with integrated power supply reduce the amount of cabling work required and thus guarantee cost-efficient solutions with maximum operational reliability.

With Their Integrated Power Supply Units, the OCTOPUS Switches Take up Considerably Less Space Than Designs with an External Power Supply and are also Easier to Install and Maintain.

- High operational reliability, thanks to fewer sources of error in cabling
- Greater flexibility in the choice of installation locations, due to compact design
- Cost reduction, thanks to straightforward installation and maintenance

The new Hirschmann™ OCTOPUS switches with integrated power supply are available in managed and unmanaged versions. They therefore enable solutions to be better optimized to suit different requirements. In addition, devices can be powered efficiently via PoE Plus. All versions require significantly less space than switches with an external power supply and the cabling effort is also reduced.

In other words, potential sources of error are reduced, thus increasing reliability. The OCTOPUS switches from Hirschmann™ also set new standards for robustness, since they are affected neither by Arctic cold nor by tropical heat. In addition, they fulfill the EMC (electromagnetic compatibility) and fire prevention requirements of European standards governing use in rail vehicles.

Applications

The Hirschmann™ OCTOPUS switches with integrated power supply are especially designed for use in transport vehicles. This is because these compact network devices can be installed in trains, subway vehicles or buses without any problem, even though the space available for installation is usually comparatively limited. The switches support PoE-Plus and can supply devices that require power levels of up to 22 W.

Your Benefits

The Hirschmann™ OCTOPUS switches with integrated power supply offer you optimum operational reliability, thanks to their reduced cabling requirements compared to switches with an external power supply unit. This minimizes possible installation errors while also reducing the cost of both installation and maintenance. The compact design of the switches also allows a high degree of flexibility in relation to spatial design, which is a positive feature, particularly in relation to transport vehicles such as trains and buses.

A new product to serve your needs.
Be certain.

Hirschmann™ OCTOPUS PoE

The Hirschmann™
OCTOPUS switches with
integrated power supply
can also be installed in
small spaces.

The OCTOPUS switches with integrated power supply, which support Fast Ethernet (10/100 BASE-TX), measure only 184 mm x 189 mm x 70 mm. Of the four versions available, two are unmanaged ten-port switches. The other two have nine ports and are equipped with Layer 2 Basic software from Hirschmann™, incorporating a variety of management and security functions and fast redundancy methods. Both the 9-port and 10-port switches are available with a 24 to 48 V or 72 to 110 V power supply unit.
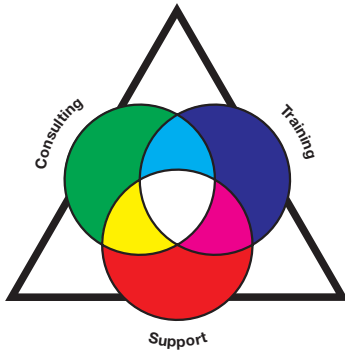
Benefits at a Glance

- Integrated power supply reduces cabling requirements and thus allows maximum operational reliability and ease of maintenance and installation
- Compact design provides maximum flexibility in the choice of installation locations
- PoE Plus via the phantom power method (62 W in total to 8 ports) enables low-cost power supply to terminal equipment
- Fast Ethernet ports with vibration-proof D-coded M12 connectors
- Sturdy die-cast zinc housing
- Industrial protection class IP67 (9-port managed switches) or IP54 (10-port unmanaged switches)
- Operating voltage 24 to 48 V or 72 to 110 V
- Operating temperature range -40°C to +70°C
- LEDs for equipment and network status and power supply
- Layer 2 Basic software for 9-port managed versions:
  – Configuration: CLI, DHCP relay agent option 82, HiDiscovery, RS232 interface and autoconfiguration adapter ACA11
  – Diagnostics: RMON, port mirroring and LLDP (Topology Discovery 802.1ab); signaling contact for alarms
  – Management: Standard web browser plus SNMP v2c and v3
  – Redundancy methods: HIPER Ring, MRP and RSTP
  – Security mechanisms: IP and MAC port security, SNMP v3, SSH, SNMP access settings (VLAN/IP) and IEEE 802.1x
- EMC and fire prevention properties compliant with the requirements of the European standards that govern use in rail vehicles

Technical Information

Product Description				
Type OCTOPUS	OS24-080900T5T5TFFBHH	OS24-080900T5T5TNEBHH	OS24-081000T5T5TFFUHB	OS24-081000T5T5TNEUHB
Variants	24 V	110 V	24 V	110 V
Order No.	942 025-007	942 025-008	942 025-003	942 025-004
Description	Managed IP67 switch under IEEE 802.3, store-and-forward-switching, Layer 2 Basic software, Fast-Ethernet (10/100 Mbit/s), power sourcing equipment under IEEE 802.3at (Inline Power) full PoE power max. 62 W		Unmanaged IP54 switch under IEEE 802.3, store-and-forward-switching, Fast-Ethernet (10/100 Mbit/s) ports, power sourcing equipment under IEEE 802.3at (Inline Power) full PoE power max. 62 W	
Port Type and Quantity	8 x 10/100 Base-TX PoE (phantom power) and 1 x 10/100 Base-TX, M12 D-coding, 4 poles, TP cable, autocrossing, autonegotiation, autopolarity		8 x 10/100 Base-TX PoE (phantom power) and 2 x 10/100 Base-TX, M12 D-coding, 4 poles, TP cable, autocrossing, autonegotiation, autopolarity	
More Interfaces				
V.24 Interface	1 x M12 jack, 4 poles, A-coded		n/a	
Supply/Signaling Contact	1 x 7/8" connector, 5 poles for 24 V, 4 poles for 110 V/1 x M12 connector, 4 poles, A-coded		1 x 7/8" connector, 5 poles for 24 V, 4 poles for 110 V/no signaling contact	
Network Size – Length of Cable				
Twisted Pair (TP)	0 to 100 m			
Network Size – Cascadibility				
Line-/Star Topology	Any			
Ring Structure (HIPER-Ring)	Number of switches: 50 (reconfiguration time < 0.3 sec.)		n/a	
Power Requirements				
Operating Voltage DC	24 V to 48 V	72 V to 110 V	24 V to 48 V	72 V to 110 V
Power Input	80 W			
Software				
Management	Serial interface, web interface, SNMP v2c, v3 password protected, HiVision file transfer SW HTTP/TFTP		n/a	
Diagnostics	LEDs (power 1, power 2, link status, data, redundancy manager, PoE, fault) cable tester, signaling contact, RMON (statistics, history, alarm, events), sysLog support, port mirroring		LEDs (power 1, power 2, link status, data, PoE, fault)	
Configuration	Command Line Interface (CLI), autoconfiguration adapter (ACA11), DHCP option 82, HiDiscovery		n/a	
Security	SNMP v3		n/a	
Other Services	4 QoS queues, user prioritization (IEEE 802.1D/p), multicast support (IGMP querier and snooping)		n/a	
Redundancy Functions	HIPER Ring (client and server), MRP (client and server), RSTP – IEEE 802.1w, redundant feeding of supply voltage for 24 V variant		Redundant feeding of supply voltage for 24 V variant	
Mechanical Construction				
Dimensions (W x H x D)	184 x 189 x 70 mm			
Mounting	Wall mounting			
Weight	1900 g			
Protection Class	IP67		IP54	
Ambient Conditions				
Operating Temperature	-40°C to +70°C			
Storage/Transport Temperature	-40°C to +85°C			
Relative Humidity (also condensing)	10% to 100%			
Approvals				
Safety of Industrial Control Equipment	cUL60950-1 (in preparation)			
Use in Vehicles	E1 (in preparation)			
El. Installations on Rail Vehicles	EN 50155, EN 50121-4, DIN 5510-2, NF F 16-101, NF F 16-102			

The 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 play 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 from Belden®, Hirschmann™ and Lumberg Automation™. Irrespective of the technology you use, you can rely on our full support – from the implementation to the 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 are able to add value to your business. When it comes to signal transmissions, Belden is the number one solutions provider. We understand your business and want to know your specific challenges and targets to see how effective signal transmission solutions can push you ahead of the competition. By combining the strengths of our three leading brands, Belden®; Hirschmann™; and Lumberg Automation™, we are able to offer the solution you need. Today it may be a single cable, a switch or a connector, thus solving a specific issue; tomorrow it can be a complex range of integrated applications, systems and solutions.

We guarantee the superior performance of your mission-critical systems, even in the most demanding circumstances. If signal transmission is vital to your business, get in touch with the partner that delivers. Be certain. Belden.

Product Overview

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