



HIRSCHMANN

A BELDEN BRAND

New Product Bulletin

NP 1042HE

Hirschmann™ Gigabit OCTOPUS Switches with M12 Ports

Robust Gigabit switches that allow reliable transmission of high data rates even under rugged environmental conditions.



The New Gigabit OCTOPUS Switches from Hirschmann™ Offer High Bandwidths via M12 Ports for the Ever-growing Data Volumes in Road and Rail Vehicles.

- Enables faster data transfer for a wider range of infotainment applications such as passenger information systems and advertising opportunities
- Offers high bandwidth for increased number of applications such as inter-connecting IP cameras for increased passenger safety and reduced vandalism
- Wireless internet access for enhanced passenger experience

The new Hirschmann™ Gigabit OCTOPUS switches offer high data rates together with robust hardware. Vibration, heat and cold pose no problem. Even water has no effect on these switches. They also meet the EMC and fire prevention requirements of the European standards that govern use in rail vehicles.

A further advantage of the Hirschmann™ Gigabit OCTOPUS switches is PoE (Power over Ethernet). This enables terminal equipment such as IP cameras, VoIP telephones and WLAN Access Points to be powered without any additional cables. A variety of management and security functions plus fast redundancy protocols round off the package.

Applications

The Hirschmann™ Gigabit OCTOPUS switches were developed primarily for use in road and rail vehicles: thanks to their wide bandwidth they allow a host of different applications that provide passengers with more safety and convenience.

Benefits

The Gigabit OCTOPUS switches from Hirschmann™ make high bandwidth available in order to handle the steadily increasing network load in transport vehicles. They can be used, for example, to connect numerous IP cameras, thus helping to curb criminal behavior and vandalism. In addition, a wider range of infotainment options can be offered – for instance through fast internet access during the journey.

A new product to
serve your needs.
Be certain



Hirschmann™ Gigabit-OCTOPUS OS32

The Gigabit OCTOPUS switches, which offer a variety of management and security functions as well as fast redundancy protocols, have two Gigabit Ethernet uplinks for twisted pair cables (1000 BASE-TX) connected via vibration-proof M12 ports. Eight or sixteen Fast Ethernet ports (10/100 BASE-TX), which are also designed for M12 connectors, are provided for connecting terminal equipment. Eight of the ports support PoE. The fanless design and redundant 48 V power supply also guarantee high operational reliability.

The Hirschmann™ Gigabit OCTOPUS switches are equipped with vibration-proof M12 connection technology for twisted pair cables.

The Advantages at a Glance

- Gigabit uplinks and Fast Ethernet ports with vibration-proof M12 connection technology for twisted pair cables
- Sturdy and compact die-cast zinc housing
- Industrial protection class IP54
- Redundant 48 V power supply
- Temperature range -40°C to +70°C
- PoE via phantom power method
- LEDs for equipment and network status and power supply
- Powerful software:
 - Configuration: CLI, Telnet, BootP, DHCP Option 82, HiDiscovery, Autoconfiguration adapter ACA21-M12
 - Diagnostics: RMON, SysLog support, port mirroring; relay contact for alarms
 - Management: standard web browser, SNMP
 - Redundancy protocols: HIPER-Ring, RSTP
 - Security mechanisms: IP and MAC port security, SNMP V3, SSHv3, SNMP access settings (VLAN/IP) and IEEE 802.1x
- EMC and fire prevention compliant with the requirements of the European standards that govern use in rail vehicles



Hirschmann™ OCTOPUS OS32-081602T6T6PEPHH

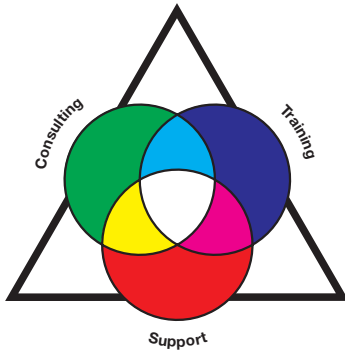




Product Information OCTOPUS OS32

Technical Information

Product Description		
Type	OCTOPUS OS32-080802T6T6TPEPHH	OCTOPUS OS32-081602T6T6TPEPHH
		
Variants	2 GE + 8 PoE	2 GE + 8 PoE + 8 FE
Order No.	942 069-002	942 069-001
Description	Managed IP54 switch in accordance with IEEE 802.3, store-and-forward-switching, software layer 2 professional, electrical Fast-Ethernet (10/100 Mbit/s) and Gigabit-Ethernet (1000BASE-TX) M12 Ports	
Port Type and Quantity	8x10/100 BASE-TX PoE (phantom power) plus 8x10/100 BASE-TX (16 Port version only), M12 D coding, 4-pole, plus 2x1000 BASE-TX, M12 coding, 8-pole, TP cable, auto-crossing, auto-negotiation, auto-polarity	
More Interfaces		
V.24 Interface	1x M12 4-pole connector, A coding	
USB Interface	1x M12 5-pole socket, A coding	
Power Supply/Signaling Contact	1x M12 5-pole socket, A coding	
Network Size – Length of Cable		
Twisted Pair (TP)	0 – 100 m	
Network Size – Cascadability		
Line-/Star Topology	any	
Ring Structure (HIPER-Ring)	Quantity switches: 50 (reconfiguration time < 0.3 sec.)	
Power Requirements		
Operating Voltage DC	48 V to 58 V	
Power Consumption	max. 146 W	
Current Consumption at 48 V DC	0.3 A (no PD), max. 3 A (8 PD Class 0)	
Software		
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 scripting), auto-configuration adapter (ACA21-M12), TELNET, BootP, DHCP Option 82, HiDiscovery	
Security	Port security (IP and MAC), SNMP V3, SSHv3, SNMP access settings (VLAN/IP), IEEE 802.1x authentication	
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)	
Redundancy Functions	HIPER-Ring (ring structure), RSTP (Rapid Spanning Tree Protocol, IEEE 802.1w), redundant network/ring coupling, redundant power supply	
Mechanical Construction		
Dimensions (WxHxD)	261 mm x 189 mm x 70 mm	338 mm x 189 mm x 70 mm
Mounting	Wall mounting	
Weight	1950 g	2540 g
Protection Class	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	cUL 60950-1	
Employment in Vehicles	E1	
El. Mechanisms on rail-mounted Vehicles	EN50155, EN50121-4, DIN 5510-2, NF F 16-101, NF F16-102	



The Belden® Competence Center

Make sure you get an economical end-to-end solution for your network: In addition to its well-known products, Belden can also offer you a wide range of vendor-independent services. Whether it's consulting, training or support – at the Belden® Competence Center you can be certain of tailor-made service from a single supplier.

Whichever technology you use: our experts will support you all the way, from designing your network to optimizing the measures required in the operating phase. Up-to-date manufacturer's expertise, an international service network and fast access to external specialists guarantees you the best possible support. Bundle your individual service package today!

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.