Hirschmann GECKO Switches

Lite Managed Industrial Ethernet Switch Family

As one of the smallest managed Industrial Ethernet switches on the market, GECKO switches guarantee reliable data communication and provide security, diagnostic and redundancy functions at an outstanding price, setting new standards in cutting long-term operating costs.

Quick installation and handling due to simple configuration and network management software tools, which enable various tasks to be worked on remotely, such as monitoring the health of the network and troubleshooting

Space-saving design and increased bandwidth performance with four to eight Fast Ethernet ports and two Gigabit SFP slots

Cost-effective and environment-friendly operation due to its minimal power consumption of less than 3 Watts

Key Features

- Simple Network Management Protocol (SNMP) and HiDiscovery/Industrial HiVision, plus a web interface, ensure fast and convenient administration
- Redundancy protocols like Rapid Spanning Tree Protocol (RSTP) and Media Redundancy Protocol (MRP) guarantee reliable data communication
- A range of diagnostic functions ensures fast identification of errors, resulting in smooth production processes
- Reduced operating costs due to low power consumption
- Compact design for space-saving installation
- High resistance to shocks and vibration
- 24 Volt DC power supply
- Withstand harsh conditions with an IP30 protection rating
- Security features like VLAN, MAC-Based port security
- Industrial protocols like PROFINET and EtherNet/IP
- Extended operating temperature range from -40 °C to +70 °C

The Hirschmann GECKO Industrial Ethernet switches provide security, diagnostic and redundancy functions at a price competitive to that of managed switches, without the complex operation of them.

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Lite Managed Industrial Ethernet Switches deliver outstanding performance

Although these "lightly" managed switches stand out with their simplicity, they also offer functionalities that enable more advanced capabilities than unmanaged devices.

Featuring four to eight Fast Ethernet ports (10/100 Mbit/s) and two Gigabit Ethernet (100/1000 Mbit/s) SFP slots, plus the ability to mount on a DIN rail, the compact dimensions of the GECKO switches require little space. Additionally, any inactive ports can be disabled to protect against possible misuse.

The switches can be managed through Simple Network Management Protocol (SNMP) or via HiDiscovery and Industrial HiVision from Hirschmann. A web interface for HyperText Transfer Protocol Secure (HTTPS) deployment is also available. For monitoring purposes, the switches provide diagnostic and documentation options, such as a system log, Remote Monitoring (RMON) and Link Layer Discovery Protocol (LLDP). Rapid Spanning Tree Protocol (RSTP), Media Redundancy Protocol (MRP) and Quality of Service (QoS) functions are also supported.

Additional features include Virtual Local Area Networks (VLANs), industrial protocols such as PROFINET and EtherNet/IP, an IP30 protection rating, a wide operating temperature range, high resistance to shocks and vibration, and a 24 V DC power supply. What's more, with a power consumption of less than 3 W, the GECKO switches require minimal power.

Applications

With a combination of managed and unmanaged switches, the GECKO switches are ideally suited for use in smaller networks, or on the edge of larger installations. They can also be used for carrying video signals or transmitting control data. For industrial manufacturers looking for a cost-effective way of entering the world of managed switches, the GECKO switches offer simple network management and enhanced network availability. Network parameters can be centrally configured using a web interface, while redundancy and diagnostic functions ensure high network availability.

Markets

With their compact, yet robust design, the GECKO switches can be used in a wide range of areas, from solar farms to production lines in the food and beverage sector. Potential application scenarios include machine and plant engineering, material handling, robotics and connecting production cells for various industries. No matter where they are installed, the GECKO switches guarantee reliable data communication.

Hirschmann GECKO switches offer a well-designed and intuitive graphical user interface – even on mobile devices – to get more status information from your network.

Technical Information

Product Description

Type	GECKO 4TX	GECKO 5TX	GECKO 8TX	GECKO 8TX/2SFP
Description	Lite Managed Industrial ETHERNET Rail-Switch, Ethernet/Fast-Ethernet Switch with Gigabit Uplink, Store and Forward Switching Mode, fanless design			
Port Type and Quantity	4 x 10BASE-T/100BASE-TX, TP-cable, RJ45 sockets, auto-crossing, auto-negotiation, auto-polarity	5 x 10BASE-T/100BASE-TX, TP-cable, RJ45-sockets, auto-crossing, auto-negotiation, auto-polarity	8 x 10BASE-T/100BASE-TX, TP-cable, RJ45-sockets, auto-crossing, auto-negotiation, auto-polarity	8 x 10BASE-T/100BASE-TX, TP-cable, RJ45-sockets, auto-crossing, auto-negotiation, auto-polarity, 2 x 100/1000 MBit/s SFP
Order No.	942 104-001	942 104-002	942 291-001	942 291-002

More Interfaces

Power Supply/Signaling Contact	1 plug-in terminal block, 3-pin

Network Size – Length of Cable

Twisted Pair (TP)	0 - 100 m

Network Size – Cascadibility

Line-/Star Topology	Any

Power Requirements

Operating Voltage	12/24 V DC (9.6 to 32 V DC)

Software

Management	HTML5 Web-Interface, TFTP config file/firmware transfer, SNMP V1/V2/V3
Diagnose	Device status indication (LEDs), Log-File, RMON (1) statistics, Simple interface statistics, Topology Discovery according to IEEE 802.1AB (LLDP), Port Mirroring 1:1, Syslog
Configuration	BOOTP/DHCP, HiDiscovery
Security	SNMPv3 (authNoPriv), Possibility to disable each port, SSH, SSL, MAC-Based Port Security
Redundancy Functions	RSTP (IEEE 802.1D-2004), MRP*
Filter	TOS/DSCP prioritization (Mapping TOS/DSCP to 802.1D/p), QoS (4 queues), Static unicast/multicast filter entries (up to 100), VLAN*, IGMP Snooping*, Flow Control
Industrial Protocols*	PROFINET, Ethernet/IP
Time Synchronization*	SNTP Client
Secure Remote Access	SiteManager GECKO

Ambient Conditions

Operating Temperature	0 °C to +60 °C	-40 °C to +70 °C **
Storage/Transport Temperature	-40 °C to +85 °C	
Relative Humidity (non-condensing)	5% to 95%	

Mechanical Construction

Mounting	DIN Rail			
Protection Class	IP30			
Dimensions (W x H x D)	25 mm x 99 mm x 79 mm (w/o terminal block)		38 x 102 x 79 mm (w/o terminal block)	
Weight	100 g	110 g	200 g	220 g

Approvals

Safety of Industrial Control Equipment	cUL 61010-1 (previously cUL 508)

Reliability

Warranty	5 years (standard)

Scope of Delivery and Accessories

Scope of Delivery	Device, terminal block, start-up instructions
Accessories to Order Separately	Rail power supply RPS 30, RPS 80 EEC or RPS 120 EEC (CC), Fast Ethernet SFP Transceivers, Fast Ethernet Bi-Directional SFP Transceivers, Gigabit Ethernet SFP Transceivers, Gigabit Ethernet Bi-Directional SFP Transceivers , Mounting Accessories

* Later release as a free to download update.
** Temperature derating depending on used SFP. More information can be found in the manual.

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

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

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