

iGigaSwitch 10xx E+ 12/24V HW5 Series

Contact

Nexans LAN Systems

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LANactive Industry 10 port managed Full Gigabit Ethernet Switch

- 10 ports in total, variable number of SFP ports (2,4 or 8)
- Up to 8 PoE+ ports with max. 240W power budget
- Up to 6 PoE++ ports with max. 540W power budget
- Built-in I/O module with 2 input and 2 output ports
- Wide operating temperature range, -40 ... +85°C
- Input power range 10.8 ... 36V DC

Description

Nexans managed Industrial Ethernet iGigaSwitch 10xx E+ HW5 series is part of the LANactive Industry product portfolio and designed for installing a robust and reliable networks in harsh environments.

The LANactive Industry iGigaSwitch 10xx series is designed to provide a maximum of network availability, security and longest lifetime in harsh environments.

The iGigaSwitch 10xx series provides great flexibility in network design - it has 10 Gigabit ports including 2, 4 or 8 SFP ports. The iGigaSwitch is designed for DIN-Rail mounting and comes with redundant input for powering.

I/O interfaces

The integrated I/O interface of the iGigaSwitch 10xx series allow a fast, simple and low-cost integration of non-IP based devices directly e.g. different sensors, controllers, buttons etc. The switches are offering extensive management functionalities with interactions, sending of messages as well as the activation of alarms.

Power over Ethernet (PoE/PoE+/PoE++)

Up to 8x connected Ethernet devices can be supplied with Power over Ethernet. According to the latest IEEE 802.3at (PoE+) standard, up to 30 watts per port are available for each connected device, with total budget of 240 watts.

The latest generation of the iGigaSwitch 1004 E+ SFP-4VI HW5 provides PoE++ according to IEEE 802.3bt, with 90W per port and a total budget of 540W per switch.

IEC 61850

Nexans iGigaSwitch family complies to IEC 61850 requirements (parts 6, 7-1, 7-2, 7-3, 7-4, 8-1, 9-1 and 9-2 Communication networks and systems for power utility automation). This functionality is critical for Smart grid and allows to use standardized equipment to ensure correct and reliable communication of all networked devices of Smart grid infrastructure (including switches, PLCs, different controllers, sensors etc.) with each other and with central SCADA.

The compliance is tested and confirmed by KEMA/DNV-GL.



Made in Germany

LANactive Industry



Standards (extract)

IEEE 802.3
IEEE 802.3u
IEEE 802.3ab
IEEE 802.3af
IEEE 802.3at
IEEE 802.3z
IEEE 802.3x
IEEE 802.1AB
IEEE 802.1D
IEEE 802.1Q
IEEE 802.1X
IEEE 802.1AX
IEEE 802.3ad

IEC 61850-6, 7-1, 7-2, 7-3, 7-4, 8-1, 9-1, 9-2
IEC 61850-3



Designed for harsh environments



PoE/PoE+/PoE++



Compact design



Interoperability



Easy maintenance



Redundancy



Security and reliability



High availability

Nexans

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Hardware Features

Ordering Information	iGigaSwitch 1002 E+ SFP-2VI 12/24V HW5	iGigaSwitch 1004 E+ SFP-4VI 12/24V HW5	iGigaSwitch 1008 E+ SFP-8VI 12/24V HW5
Article Number	88306442	88306444	88306448
LAN Interfaces			
User Port (RJ45)	8x 1000Base-T	6x 1000Base-T	2x1 000Base-T
Uplink Port (SFP)	2x 100/1000Mbps	4x 100/1000Mbps	8x 100/1000Mbps
Power over Ethernet			
Max. Number of PoE+ ports	8	6	2
Max. PoE power budget	240W	180W	60W
Max. Number of PoE++ ports	-	6	-
Max. PoE++ power budget	-	540W	-
Diagnostic Interfaces			
Digital Diagnostics Monitoring Interface		Yes	
Twisted Pair cable diagnostic		Yes	
General			
Dimensions [W x H x D]	83mm x 133mm x 125mm		
IP Protection Class	IP30 (EN 60529)		
Mounting	35mm DIN-Rail Mounting according to EN 60715, (EN 50022) Different mounting positions of DIN-rail clip - vertical and horizontal switch mounting. Optional: wall mounting.		
Material	Anodised/Varnished Aluminium		
Colour	Black		
Ambient Temperature	Operation: -40 ... 85°C, Storage: -40 ... 85°C		
Relative Humidity	20 - 90% (non-condensing)		
Weight	1300g		
MTBF	> 500,000h		
Power Supply			
Input Voltage for Switch	10.8 ... 36V DC		
Power Fail Hold Up Time	> 10ms @ > 18V input voltage		
Input Voltage for PoE+	46 ... 57 V DC (typ. 54V DC)		
Power Consumption (without PoE)	13W (standby) ... 15W (typ.) ... 22W (fully connected)		
Heat Output	52 BTU(IT)/h (typ.)		
Connector	5-pin terminal blocks, screw-on type (up to 2.5 mm ²) / (+) (-) (+) (-) (FPE)		
Connector PoE	3-pin terminal blocks, screw-on type (up to 2.5 mm ²) / (+) (-) (FPE)		
I/O Interfaces			
I/O Interface Connector	12-pin terminal block (screw-on type)		
Number of Outputs	2		
Output Switching Current/Voltage	3A / 30V AC and DC, 500mA / 125V AC and DC, 100mA / 300V AC and DC		
Auxiliary Voltage Source	24V DC max. 42mA		
Number of Inputs	2		
Input Voltage Range	12 ... 60V DC		
Dry Contacts Support	Yes, via aux voltage		

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Software Features

Switching Parameters

Switching Type	Store-and-Forward, self-learning
Switching Capacity	50Gbps
Max. Frame Size	9,600 Bytes (Support of Jumbo frames)
Packet Buffer	512 kBytes
Latency (RFC1242)	100 Mbps / 64 Byte (FIFO/LIFO) 9µs / 3.9µs 100 Mbps / 1518 Byte (FIFO/LIFO) 125µs / 4µs 1000 Mbps / 64 Byte (FIFO/LIFO) 2.7µs / 2.2µs 1000 Mbps / 1518 Byte (FIFO/LIFO) 15µs / 2.5µs
MAC-Address Table	8,192 MAC-Addresses
VLANs	IEEE802.1q with up to 256 Groups
Quality of Service Layer 2	IEEE802.1p Class of Service (4 Queues per Port)
Quality of Service Layer 3	RFC2474/3168 DSCP (4 Queues per Port)
Bandwidth Limitation	Bitrate and Number of Packets
Fabric Attach	Basic Fabric Attach Client Support

Management

	On-Board High-Performance Management
LEDs	Management, Port Status and Activity, Memory Card
Zero-Touch Configuration	Via NEXMAN Controller
IP-Address	IPv4, IPv6
DHCP-Client	DHCP, DHCPv6
DHCP Relay Agent	Yes
File Transfer	TFTP, SCP
Console Port	V.24 with Nexans Console Cable
Web-Interface	HTTP, HTTPS
Command Line Interface	SSH, Telnet
Scripting	Yes
SNMP	SNMPv1, v2c, v3
Further Management Protocols	Syslog, LLDP, LLDP-MED, CDP
Time Synchronisation	SNTP
Port Statistics	Detailed per Port

Redundancy

Redundancy Protocols	STP, RSTP, MSTP, MRP
Link Aggregation	LACP

Security

Password Protection	Two Access Levels (R/W or R/O)
Authentication via Radius	CLI and NEXMAN
Authentication via TACACS+	CLI and NEXMAN
Access Control List (ACL)	Layer 2 and Layer 3
ACL for Management Interface	Up to 16 Access Control Lists
Portsecurity via MAC-Address	Up to 3 predefined MAC-Addresses
Portsecurity via Radius	IEEE802.1x
DHCP Snooping	Yes
Loop and Broadcast Limiter	Yes
Firmware Update	Dual Firmware Image
Configuration-/Reset Button	Yes / Yes
Memory Card	Micro SD-Card, optionally with fixed MAC-Address



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Standards

CE - Conformity

Electro Magnetic Capability Directive	2014/30/EU
Low Voltage Directive	-
RoHS 2	2011/65/EU

Dimensions

