

iGigaSwitch 1202 HSR SFP-2VI AC

LANactive Industry 12 Port Managed Full Gigabit Ethernet Switch

- 12 ports in total, 10x RJ45 and 2x SFP ports for HSR
- Optionally with integrated I/O module
- IEC 61850 compliancy is tested and certified by KEMA/DNV-GL
- Wide operating temperature range: -40 ... +70°C
- Wide input power range 90 ... 264V AC or 127 ... 370V DC

Description

Aginode managed Industrial Ethernet iGigaSwitch 1202 HSR is part of the *LANactive Industry* product portfolio and is designed for installing robust and reliable networks in harsh environment.

LANactive Industry iGigaSwitch 1202 HSR is designed to provide maximum network availability, security, longest lifetime in harsh environments and making a network maintenance easier.

iGigaSwitch 1202 HSR provides great flexibility in network design - it has 12x Gigabit Ethernet ports (10x RJ45 and 2x SFP). The iGigaSwitch allows to adapt the interfaces to the application by using the corresponding pluggable modules (Fast Ethernet or Gigabit Ethernet SFP).

I/O Interfaces

Optional I/O interfaces of iGigaSwitch 1202 HSR allows a fast, simple and low-cost integration of non-IP based devices directly e.g. different sensors, controllers, buttons etc. The switch is offering extensive management functionalities with interactions, sending of messages as well as the activation of alarms.

Zero-Loss Redundancy

High Availability and Seamless Redundancy (HSR) and Parallel Redundancy Protocol are a zero-loss redundancy protocols for ring network topologies. That means the iGigaSwitch sends packets in both directions of the ring that at least one packet will arrive the destination.

IEC 61850

Aginode iGigaSwitch family comply 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

Standards

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



Compact design



Interoperability



Easy maintenance



Redundancy



Security and reliability



High availability

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Hardware Features

Ordering Information	iGigaSwitch 1202 HSR
Article Number	909745
Interfaces	
User Ports (RJ45)	10x 1000Base-T
RJ45 Ports	Auto-Negotiation, MDI/MDI-X Auto-Cross Over and Auto-Polarity
Eco Mode for RJ45 Ports	Yes
Uplink Ports (SFP)	-
HSR/PRP Ports (SFP)	2x 100/1000Mbps
Diagnostic Functions (Interfaces)	
Digital Diagnostics Monitoring Inter-	Yes
Twisted Pair Cable Diagnostic	Yes
General	
Dimensions [WxHxD]	95mm x 184mm 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.
Material	Anodised/Varnished Aluminium
Colour	Black
Ambient Temperature	Operation: -40 ... 70°C, Storage: -40 ... 85°C
Relative Humidity	20 - 90% (non-condensing)
Weight	1800g
MTBF	> 500,000h
Power Supply	
Input voltage for switch	90 ... 264V AC / 127 ... 370V DC
Input voltage for PoE+	-
Power consumption (without PoE)	13W (standby) ... 15W (typ.) ... 28W (fully connected)
Heat output	52 BTU(IT)/h (typ.)
Connector	1x 3-pin terminal blocks, screw-on type (up to 2.5 mm ²) / (PE) (L/+) (N/-)
CE - Conformity	
Electro Magnetic Capability Directive	2014/30/EU
Low Voltage Directive	2014/35/EU
RoHS 2	2011/65/EU
Engineering Standards	EN 62368-1, EN 61000-6-2, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 50581, IEC 61850-3, -6, -7-1, -7-2, -7-3, -7-4, -8-1, -9-1, -9-2

Software Features

Switching Parameters

Switching Type	Store-and-Forward, self-learning
Switching Capacity	50Gbps, non-blocking
Packet Forwarding Rate	2x 1.488Mpps per port
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 Mpbs / 1518 Byte (FIFO/LIFO) 125µs / 4µs 1000 Mbps / 64 Byte (FIFO/LIFO) 2.7µs / 2.2µs
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
Energy Efficient Ethernet	IEEE802.3az
Flow Control	IEEE802.3x
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 LANactive Manager Controller
IP-Address	IPv4, IPv6
DHCP-Client	DHCP, DHCPv6
DHCP Relay Agent	Yes
File Transfer	TFTP, SCP
Console Port	V.24 with Aginode 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

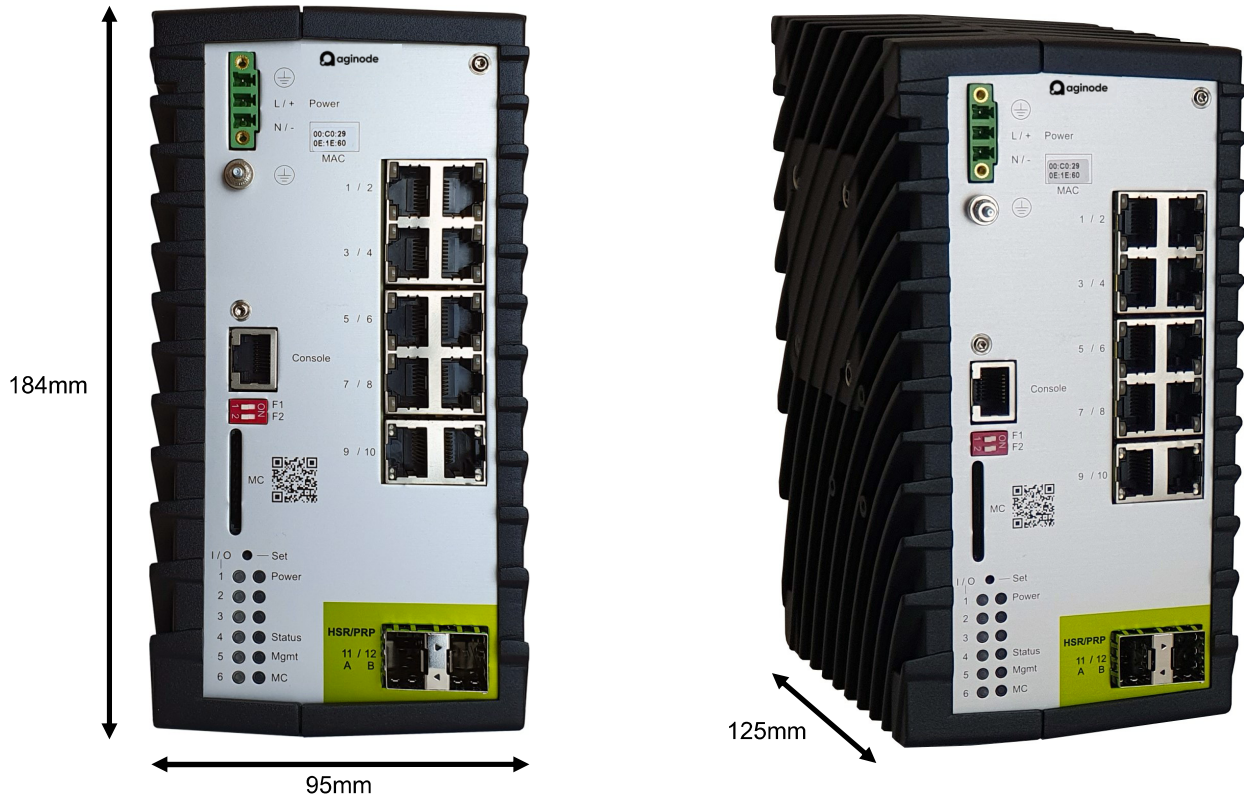
Redundancy Protocols	IEEE802.1D (STP, RSTP, MSTP, MRP)
Zero-Loss Redundancy	HSR, PRP
Link Aggregation	IEEE802.1AX (LACP)

Security

Password Protection	Two Access Levels (R/W or R/O)
Authentication via Radius and TACACS+	CLI and LANactive Manager
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 with MAC Bypass
DHCP Snooping	Yes
Loop and Broadcast Limiter	Yes
Firmware Update	Dual Firmware Image
Configuration-/Reset Button	Yes / Yes
Memory Card	SD-Card, optionally with fixed MAC-Ad

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Dimensions



Accessories

Ordering Information

1316186

Description

iOption I/O Digital 4xIn 2xOut 230V