Ha-VIS FTS 3082-ASFP-PTP

Ethernet Switch
Ha-VIS FTS 3082-ASFP-PTP
10-port Ethernet Switch with Fast Track Switching Technology, with 2 slots for SFP modules; managed

Features

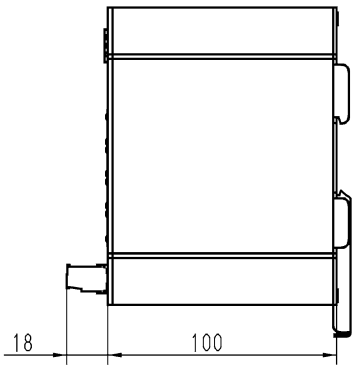
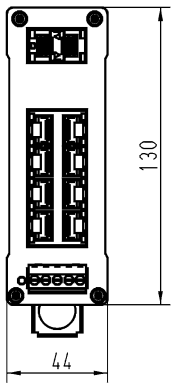
- Managed Ethernet Switch according to IEEE 802.3
- Identification, acceleration and preference for automation protocols avoids production stop caused by traffic overload
- Network synchronization with Precision Time Protocol (PTP) according to IEEE 1588v2 in hardware
- High network availability due to Media Redundancy Protocol (MRP) Master or Slave
- Deterministic data transfer for selected profiles
- PROFINET IO Device to configure via PLC
- Robust, slim metal housing
- SD card slot for configuration storage

General description

Ethernet Switches of the product family Ha-VIS FTS 3000–PTP enable the customer to realise nets with a high demand for time synchronisation.

The switches support Rapid Spanning Tree Protocol (RSTP) as well as Media Redundancy Protocol (MRP) and can be installed in different topologies according to the relevant application to increase the availability of the network.

The switches identify automation protocols (e.g PROFINET, EtherNet/IP, Modbus TCP and customised profiles), accelerate them and prefer those data packages. They are the suitable PROFINET Device for industrial applications and support Ethernet (10 bit/s) und Fast Ethernet (100 Mbit/s) via copper or Fiber Optic connectors.

Identification	Part-Number	Drawing	Dimensions in mm
Ha-VIS FTS 3082-ASFP-PTP Ethernet Switch with 10 Ports RJ45 2 slots for SFP modules (100 Mbit/s) for top-hat mounting rail	20 78 110 4301		

Ha-VIS FTS 3082-ASFP-PTP

Technical characteristics

Features	• Auto-crossing, Auto-negotiation, Auto-polarity • Store and Forward Switching mode • Fast Track Switching mode
Ethernet Interface	
Number of ports	• 8x 10/100Base-TX, • 2x slots for SFP modules 100Base-FX,
Cable types acc. to IEEE 802.3	• Shielded Twisted Pair (STP) or Unshielded Twisted Pair (UTP), Category 5
Data rate	• 10/100 Mbit/s (RJ45) / 100 Mbit/s (F.O.)
Maximum cable length	• 100 m (Twisted Pair; with cable Category 5 acc. to EN 50 173-1)
Terminating method	• RJ45 (Twisted Pair) / SFP modules
Diagnostics (via LED)	• Status Link: Green • Status Data transfer (Act): Green flashing • Data transfer rate (Speed): 100 Mbit/s: Yellow / 10 Mbit/s: OFF
Topology	• Line, Ring, Star or mixed
Basic functions	
Port settings	• 10/100 Mbit/s • Full/Half Duplex • Port enable/disable • Port mirroring • Flow Control • Industrial Profile (PROFINET, EtherNet/IP, Modbus TCP, customized) • NRT Bandwidth Control
Management functions	• STP, RSTP, MRP • IGMP Snooping with support for querier • Port Based VLANs • Alarm via email, SNMP traps • PROFINET diagnosis • DHCP Option 82 • Plugable Memory Card
Power Supply	
Nominal input voltage range	24 V ⎓
Permissible range	9.6 V ... 42.4 V ⎓
Current consumption	340 mA (at 24 V ⎓)
Terminating Power supply	5-pole pluggable screw contact, for redundant power supply
Diagnostics (via LED)	• Device acts error free: Green • Error / diagnosis: Red • PROFINET diagnosis: Red/Green flashing
Design features	
Material of housing	Aluminium, anodized
Dimensions (W x H x D)	44 x 130 x 100 mm (without connectors)
Degree of protection acc. to DIN 60 529	IP 30
Mounting	• 35 mm top-hat rail acc. to EN 60 715 • Panel mounting, vertical assembly
Weight	approx. 0.5 kg
Environmental conditions	
Operating temperature	0 °C ... +60 °C
Storage temperature	-40 °C ... +85 °C
Relative humidity	30 % ... 95 % (non-condensing)

Management functions

Basic Functions		
	Store and Forward Switching Mode	IEEE 802.3
	Manual and Dynamic IP Address Assignment	
Port-Settings	Auto-negotiation on / off	
	Port Speed 10 Mbit/s / 100 Mbit/s	
	Half / Full duplex	
	Port disable / enable	
	Link Up/Down Trap disable / enable	
	Port mirroring disable / enable	
	Flow Control disable / enable	
	Industrial profiles (PROFINET, EtherNet/IP, Modbus TCP, customer spezific)	
	NRT Bandwidth Control	
Network Discovery	Link Layer Discovery Protocol (LLDP)	802.1AB, 2005
Protocols	IPv4, IPv6 switching	RFC 791, 903, 951, 1293, 1519
	TCP	RFC 793, 896
	UDP	RFC 768
	Ethernet ARP	RFC 826
	ICMP	RFC 2521, 1191, 1788, 792
File Transfer	Firmware import and export via TFTP	
	Configuration import and export via TFTP	
Time Settings	Manual time setting	
	Simple Network Time Protocol (SNTP)	RFC 1305, RFC 4330
	Precision Time Protocol (PTP) in hardware	IEEE 1588v2
User Management	Admin, Guest and Service Level	
Service	Service Mode via port 10 or 6	
QoS		
	Quality of Service (QoS)	IEEE 802.1p
VLAN		
	Port protocol based VLANs	IEEE 802.1Q Rev D5.0, 2005
	VLAN ID Range: 1-4094	
Redundancy		
	Spanning Tree (STP)	IEEE 802.1D (2004)
	Rapid Spanning Tree (RSTP)	IEEE 802.1D (2004)
	Media Redundancy Protocol (MRP) [1)]	
Security		
	Port-Based Network Access Control Port Based Authentication with EAP	802.1x (2004)
	RADIUS Client	RFC 2138
	IP authorized manager	
Multicast		
	IGMP Snooping (v1, v2, v3) with support for querier	RFC 1112, 2236, 3376
DHCP		
	DHCP Client	RFC 2131
	DHCP relay agent	RFC 2131
	DHCP Option 82	RFC 3046

Management functions

Alarm		
	Alarms via E-mail (SMTP) and SNMP Traps	
Diagnostic		
	PROFINET diagnostic	
	Port Mirroring	
	Switch History	
	MAC Address Table	
Management		
	Password protected Web-Management interface	
	SNMP (v1, v2c, v3) agent & MIB support	RFC 1155, 1157, 1212, 1213, 1215, 2089, 2578, 3411, 3412, 3413, 3414, 3415, 3416, 3417, 3584
	Pluggable memory card	
MIB Support		
	Enterprise (HARTING MIB)	
	MIB II	
	MIB II for SNMPv1, SNMPv2, SNMPv3	
	Interface group MIB	
	Bridge MIB	
	MIB for Ethernet-like interfaces (requires support in hardware)	
	VLAN MIB	
	Spanning Tree Protocol MIB	
	Rapid STP MIB	
	Port-based Network Authentication Control MIB	
	Definitions of managed objects for LLDP	
	802.1/LLDP extension MIB	
	802.3/LLDP extension MIB	
	Radius Client MIB	
	IPv4 MIB	
	IGMP MIB	
	DHCP	

1) Licensing via additional SD card