HARTING

Ethernet Switch
Ha-VIS sCon 3000
Ethernet Switches, unmanaged, for mounting onto top-hat mounting rail in control cabinets, including sCon functions

General description

The Fast Ethernet Switches of the product family Ha-VIS sCon 3000 can be configured via a USB port for special or more performance-oriented industrial usages. There are almost no limits to the different possibilities.

Activation of parallel and / or ring redundancy or port prioritisation will clearly increase the availability and reliability of data communications through the Ha-VIS sCon 3000.

Features

- Ethernet Switch acc. to IEEE 802.3

- Store and Forward Switching Mode, non blocking, unmanaged

- Auto-crossing, Auto-negotiation, Auto-polarity

- Diagnostic LEDs (Link status, Act, Power, Data transmission rate, Error)

- Following settings are available via USB port:
  - Parameterisation via USB port:
  - Alarm signalling contact
  - Auto-negotiation
  - 10/100/1000 Mbit/s
  - Full/Half Duplex
  - Ring and/or parallel redundancy
  - ports enable / disable
  - Port priority
  - Port Mirroring
  - Pause Frame

Advantages

- Individually configurable via USB port

- Robust metal housing

- EMC, temperature range and mechanical stability meet the toughest demands

- Ring redundancy and/or parallel redundancy

Application fields

- Industrial automation

- Railway applications

- Power distribution systems

- Automotive industry

- Mechanical engineering

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Technical characteristics

Ethernet interface – RJ45

Number of ports	6x / 8x / 10x 10/100Base-T(X) 2x 10/100/1000-Base-T(X)
Cable types according to IEEE 802.3	Shielded Twisted Pair (STP) or Unshielded Twisted Pair (UTP), Category 5
Data rate	10 Mbit/s or 100 Mbit/s (RJ45)
Maximum cable length	100 m (Twisted Pair, with cable Category 5 acc. to DIN EN 50 173-1)
Termination	RJ45 (Twisted Pair)
Diagnostics (LED)	• Status Link - Green • Data transfer (Act) - Green flashing • Data transfer rate (Speed) - 100 Mbit/s: Yellow 10 Mbit/s: Green
Topology	• Line • Star • Star • mixed

Power supply

Input voltage	24 / V DC (9.6 V ... 60 V DC)
Termination	5-pole, pluggable screw contact, for redundant power supply
Diagnostics (LED)	Power supply - LED Green

Alarm signalling contact

Alarm signalling contact	Change-over contact, potential-free, 24 V DC / 0.5 A
Termination	3-pole pluggable screw contact
Diagnostics (LED)	Error - Red

Design features

Housing material	metal
Dimensions (W x H x D)	60 x 132 x 104 mm (without connectors)
Degree of protection acc. to DIN EN 60 529	IP 30
Assembly	• 35 mm top-hat rail acc. to EN 60 715 • Wall mounting, vertical assembly
weight	approx. 0.6 kg

Environmental conditions

Stock temperature	-40 °C ... +85 °C
Relative humidity	10 % ... +95 % (non-condensing)

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Technical characteristics F.O. termination

Ethernet interface – F.O.

Number of ports	3x / 2x 100Base-FX
Cable types according to IEEE 802.3	• Multimodefibre, 1300 nm; 50 µm / 125 µm or 62.5 µm / 125 µm • Singlemodefibre, 1300 nm; 9 µm (for AF versions only)
Data rate	100 Mbit/s
Maximum cable length	• 2000 m (Multimode) • 15 km (Singlemode)
Termination	SC-D female
Diagnostics (LED)	• Status Link - Green • Data transfer (Act) - Green flashing
Wavelength	1300 nm
Transceive power T(X) max. (dynamic)	• -14 dBm (50 µm / 125 µm) • -14 dBm (62.5 µm / 125 µm)
Transceive power T(X) min.	• -23.5 dBm (50 µm / 125 µm) • -20 dBm (62.5 µm / 125 µm)
Receive power RX typical (dynamic)	• -33.9 dBm (window) • -35.2 dBm (centre)
Receive power RX max. (dynamic)	-14 dBm
Signal detection (dynamic)	-33 dBm
Topology	• Line • Star • Star • mixed

Ha-VIS sCon 3000

Ethernet Switch
Ha-VIS sCon 3100-A
10-port Ethernet Switch for mounting onto top-hat mounting rail in control cabinets, including sCon functions

Unmanaged	IP 30	PROFINET compatible X	EtherNet/IP compatible X

Number of ports, Copper / Termination	10x 10/100Base-T(X) / RJ45 (Twisted Pair)
Input voltage / Termination	24 V DC / 5-pole, pluggable screw contact, for redundant power supply
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 170 mA (at 24 V DC)
Alarm signalling contact	Change-over contact, potential-free, 24 V DC / 0.5 A 3-pole pluggable screw contact
Housing material	metal, powder-coated
Dimensions (W x H x D)	60 x 132 x 104 mm (including cap, without connectors)
weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	UL 508; UL 60 950-1
MTBF	745.000 h

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Identification	Part number	Drawing	Dimensions in mm
Ha-VIS sCon 3100-A Ethernet Switch with 10 RJ45 ports	20 76 110 1000		

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Ethernet Switch
Ha-VIS sCon 3100-AA
10-port Ethernet Switch for mounting onto top-hat mounting rail in control cabinets, including 2 Gigabit ports and sCon functions, extended temperature range

Unmanaged	IP 30	PROFINET compatible ☒	EtherNet/IP compatible ☒

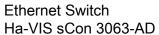|	
Number of ports, Copper / Termination	8x 10/100Base-T(X) / RJ45 (Twisted Pair) 2x 10/100/1000-Base-T(X) / RJ45 (Twisted Pair)
Input voltage / Termination	24 / 48 V DC / 5-pole, pluggable screw contact, for redundant power supply
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 240 mA (at 24 V DC)
Alarm signalling contact	Change-over contact, potential-free, 24 V DC / 0.5 A 3-pole pluggable screw contact
Housing material	metal, powder-coated
Dimensions (W x H x D)	60 x 132 x 104 mm (including cap, without connectors)
weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	UL 508; UL 60 950-1; DNV
MTBF	670.000 h

Identification	Part number	Drawing	Dimensions in mm

Ha-VIS sCon 3100-AA
    Ethernet Switch with
    10 RJ45 ports
	20 76 110 1001		

Ethernet Switch
Ha-VIS sCon 3063-AD
9-port Ethernet Switch for mounting onto top-hat mounting rail in control cabinets,
including 3 F.O. ports (SC, MM) and sCon functions

Unmanaged	IP 30	PROFINET compatible X	EtherNet/IP compatible X

Number of ports, Copper / Termination	6x 10/100Base-T(X) / RJ45 (Twisted Pair)
Number of ports, F.O. / Termination	3x 100Base-FX / SC-D female
Input voltage / Termination	24 V DC / 5-pole, pluggable screw contact, for redundant power supply
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 290 mA (at 24 V DC)
Alarm signalling contact	Change-over contact, potential-free, 24 V DC / 0.5 A
	3-pole pluggable screw contact
Housing material	metal, powder-coated
Dimensions (W x H x D)	60 x 132 x 104 mm (including cap, without connectors)
weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	UL 508; UL 60 950-1
MTBF	660.000 h

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Identification	Part number	Drawing	Dimensions in mm

Ha-VIS sCon 3063-AD
  Ethernet Switch with
  6 RJ45 ports
  3 F.O. ports
	20 76 109 1100		

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Ethernet Switch
Ha-VIS sCon 3082-AD
10-port Ethernet Switch for mounting onto top-hat mounting rail in control cabinets, including 2 F.O. ports (SC, MM) and sCon functions

Unmanaged	IP 30	PROFINET compatible [X]	EtherNet/IP compatible [X]

Number of ports, Copper / Termination	8x 10/100Base-T(X) / RJ45 (Twisted Pair)
Number of ports, F.O. / Termination	2x 100Base-FX / SC-D female
Input voltage / Termination	24 V DC / 5-pole, pluggable screw contact, for redundant power supply
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 260 mA (at 24 V DC)
Alarm signalling contact	Change-over contact, potential-free, 24 V DC / 0.5 A
	3-pole pluggable screw contact
Housing material	metal, powder-coated
Dimensions (W x H x D)	60 x 132 x 104 mm (including cap, without connectors)
weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	UL 508; UL 60 950-1
MTBF	585.000 h

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Identification	Part number	Drawing	Dimensions in mm

Ha-VIS sCon 3082-AD
  Ethernet Switch with
  8 RJ45 ports
  2 F.O. ports
	20 76 110 1100	ca. 10 / 130 / 100 / 60	