



Ethernet Switch Ha-VIS eCon 3000

Ethernet Switches, unmanaged, for installation in control cabinets

eCon 3000

General description

The Fast Ethernet Switches of the product family Ha-VIS eCon 3000 are suitable for industrial applications and support Ethernet (10 Mbit/s) and Fast Ethernet (100 Mbit/s). The product family enables the connection of up to 10 network devices (according to type) over Twisted Pair cables and fibre-optic cables (Multi- and Singlemode).

The Ha-VIS eCon 3000 Ethernet Switch product family, with its integrated LEDs on each port, supports fast and easy network diagnosis.

The Ha-VIS eCon 3000 Ethernet Switch operates as an unmanaged Switch in Store and Forward Switching Mode and supports Auto-crossing, Auto-negotiation and Auto-polarity.

Features

- Auto-crossing
- Auto-negotiation
- Auto-polarity
- Store and Forward Switching Mode

Advantages

- Small housing
- Robust metal housing
- Adapted for mounting onto top-hat mounting rail 35 mm according to EN 60 715
- RoHS compliant

Application fields

- Industrial automation
- Automotive industry
- Wind power
- Power distribution systems

Technical characteristics

Ethernet interface – RJ45

Number of ports	6x / 8x 10/100Base-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)	<ul style="list-style-type: none"> • Status Link - Green • Data transfer (Act) - Green flashing
Topology	<ul style="list-style-type: none"> • Line • Star • mixed

Power supply

Input voltage	24 V DC (9.6 V ... 60 V DC) - redundant
Termination	3-pole, pluggable screw contact (24 V, 0, FE)
Diagnostics (LED)	Power supply (PWR1; PWR2) - LED Green

Design features

Housing material	metal
Dimensions (W x H x D)	23 x 130 x 100 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
Weight	approx. 0.6 kg

Environmental conditions

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

Technical characteristics F.O. termination

Ethernet interface – F.O.

Number of ports	1x / 2x 100Base-FX
Cable types according to IEEE 802.3	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 2000 m (Multimode) • 15 km (Singlemode)
Termination	ST female / ST female
Diagnostics (LED)	<ul style="list-style-type: none"> • Status Link - Green • Data transfer (Act) - Green flashing
Wavelength	1300 nm
Transceive power T(X) max. (dynamic)	<ul style="list-style-type: none"> • -14 dBm (50 µm / 125 µm) • -14 dBm (62.5 µm / 125 µm)
Transceive power T(X) min.	<ul style="list-style-type: none"> • -23.5 dBm (50 µm / 125 µm) • -20 dBm (62.5 µm / 125 µm)
Receive power RX typical (dynamic)	<ul style="list-style-type: none"> • -33.9 dBm (window) • -35.2 dBm (centre)
Receive power RX max. (dynamic)	-14 dBm
Signal detection (dynamic)	-33 dBm
Topology	<ul style="list-style-type: none"> • Line • Star • mixed



**Ethernet Media converter
Ha-VIS eCon 3000**

Ethernet Media converter for vertical installation in control cabinets, including 1 F.O. port

General description

Features

The Fast Ethernet Media converter Ha-VIS eCon 3011 of the product family Ha-VIS eCon 3000 is suitable for industrial applications and support both Ethernet (10 Mbit/s) and Fast Ethernet (100 Mbit/s). The Media-converter enables the conversion from Twisted Pair cables to fiber-optic cables (Multimode and Singlemode).

The Ha-VIS eCon 3011 Media converter is configurable via Dip switch and offers a variety of control functions.

The Media converter has two operating modes:

In the switch mode, it operates as an unmanaged Ethernet Switch with Store and Forward Switching which supports asynchronous data communication, Auto-crossing and Auto-negotiation.

In the converter mode, it works with a data rate of 100 Mbit/s (Full duplex). The latency is very low in this operation mode.

- Auto-crossing
- Auto-negotiation
- Auto-polarity
- Store and Forward Switching Mode

Advantages

Application fields

- Power over Ethernet (IEEE 802.3af)
- Configuration via Dip switch
- Small housing
- Robust metal housing
- Adapted for mounting onto top-hat mounting rail 35 mm according to EN 60 715

- Industrial automation
- Automotive industry
- Wind power
- Power distribution systems

Technical characteristics Media converter

Ethernet interface – RJ45

Number of ports	1x 10/100Base-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)
Repeater class	Class II (latency: 860 ns in converter mode)
Maximum cable length	100 m (Twisted Pair, with cable Category 5 acc. to DIN EN 50 173-1)
Termination	RJ45 (Twisted Pair)
Diagnostics (LED)	<ul style="list-style-type: none"> • Status Link - Green • Data transfer (Act) - Green flashing • Data transfer rate (Speed) - 100 Mbit/s: Yellow 10 Mbit/s: OFF • Duplex - Full duplex: Yellow Half duplex: OFF • PoE (Power Source Equipment) (PSE) - Green
Topology	<ul style="list-style-type: none"> • Line • Star • mixed

Power supply

Input voltage	24 V DC (12 V ... 30 V DC) - redundant
Input voltage, mode PoE	48 V DC (46 V ... 57 V DC) - redundant
Termination	5-pole, pluggable screw contact, redundant (PWR1 + / PWR1 - / PWR2 + / PWR2 - / FE)
Diagnostics (LED)	Power supply - LED Green

Configuration

Configuration via Dip switch:
Mode, Auto-negotiation, Data rate, Duplex TP, Duplex FX, Link monitoring, PoE (PSE)

Design features

Housing material	metal
Dimensions (W x H x D)	23 x 130 x 100 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
Weight	approx. 0.6 kg

Environmental conditions

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



Ethernet Switch Ha-VIS eCon 3080-A

8-port Ethernet Switch for vertical installation in control cabinets

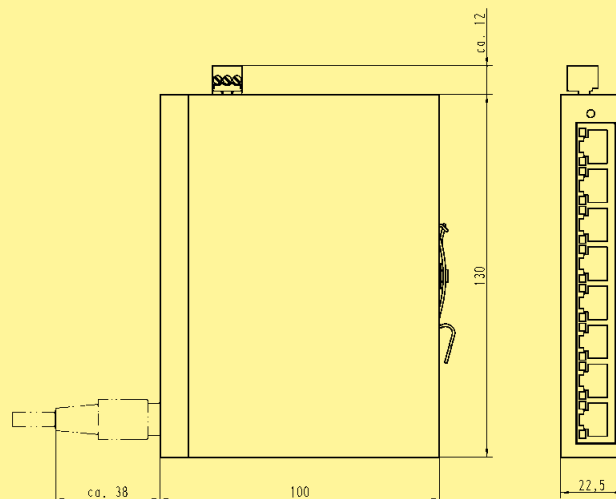
Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	8x 10/100Base-T(X) / RJ45 (Twisted Pair)
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 36 V DC
Input current	approx. 150 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508; UL 60 950-1; DNV; e1
MTBF	548.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3080-A
Ethernet Switch with
8 RJ45 ports

20 76 108 3000





Ethernet Switch
Ha-VIS eCon 3080-A1
 8-port Ethernet Switch for flat installation in control cabinets

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	8x 10/100Base-T(X) / RJ45 (Twisted Pair)
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 36 V DC
Input current	approx. 150 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	130 x 23 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508; UL 60 950-1; DNV; e1
MTBF	548.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3080-A1 Ethernet Switch with 8 RJ45 ports	20 76 108 3001		
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Ethernet Switch Ha-VIS eCon 3080-A2

8-port Ethernet Switch for vertical installation in control cabinets,
low installation depth

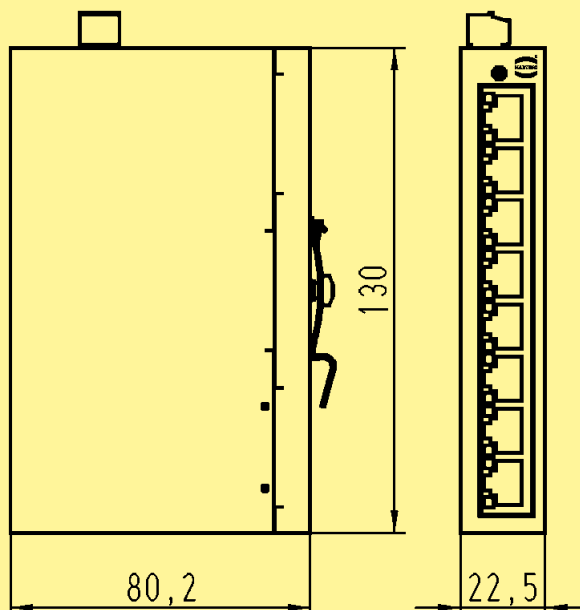
Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	8x 10/100Base-T(X) / RJ45 (Twisted Pair)
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 36 V DC
Input current	approx. 150 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 80 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508
MTBF	548.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3080-A2
Ethernet Switch with
8 RJ45 ports

20 76 108 3002





Ethernet Switch Ha-VIS eCon 3080-A4

8-port Ethernet Switch for vertical installation in control cabinets,
with extended temperature range

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	8x 10/100Base-T(X) / RJ45 (Twisted Pair)
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	12 V ... 36 V DC
Input current	approx. 150 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	UL 508; DNV
MTBF	540.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3080-A4 Ethernet Switch with 8 RJ45 ports	20 76 108 3004		
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eCon 3000

Ethernet Switch Ha-VIS eCon 3061-AD

7-port Ethernet Switch for vertical installation in control cabinets,
including 1 F.O. port (SC, MM)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	6x 10/100Base-T(X) / RJ45 (Twisted Pair)
Number of ports, F.O. / Termination	1x 100Base-FX / SC-D female
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 200 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508
MTBF	825.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3061-AD Ethernet Switch with 6 RJ45 ports 1 F.O. port	20 76 107 3100		
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Ethernet Switch Ha-VIS eCon 3062-AD

8-port Ethernet Switch for vertical installation in control cabinets,
including 2 F.O. ports (SC, MM)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	6x 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 / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 240 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508; UL 60 950-1
MTBF	825.000 h

Identification	Part number	Drawing	Dimensions in mm
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<p>Ha-VIS eCon 3062-AD Ethernet Switch with 6 RJ45 ports 2 F.O. ports</p>	<p>20 76 108 3100</p>	
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Ethernet Switch Ha-VIS eCon 3062-AD2

8-port Ethernet Switch for vertical installation in control cabinets,
including 2 F.O. ports (SC, MM), extended temperature range

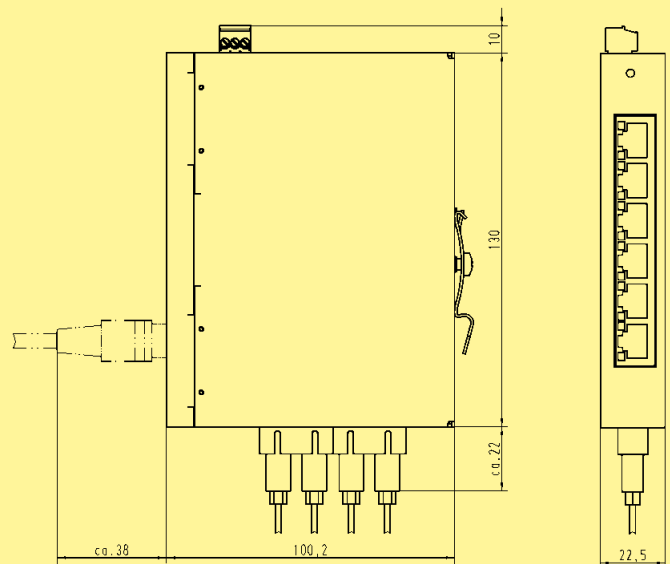
Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	6x 10/100Base-T(X) / RJ45 (Twisted Pair)
Number of ports, F.O. / Termination	2x 100Base-FX / SC-D female
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 240 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	UL 508
MTBF	825.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3062-AD2
Ethernet Switch with
6 RJ45 ports
2 F.O. ports

20 76 108 3102





Ethernet Switch Ha-VIS eCon 3062-AF

8-port Ethernet Switch for vertical installation in control cabinets,
including 2 F.O. ports (SC, SM)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	6x 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 / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 240 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508

Identification	Part number	Drawing	Dimensions in mm
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<p>Ha-VIS eCon 3062-AF Ethernet Switch with 6 RJ45 ports 2 F.O. ports</p>	<p>20 76 108 3103</p>	
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Ethernet Switch Ha-VIS eCon 3061-AE

7-port Ethernet Switch for vertical installation in control cabinets,
including 1 F.O. port (ST, MM)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	6x 10/100Base-T(X) / RJ45 (Twisted Pair)
Number of ports, F.O. / Termination	1x 100Base-FX / ST female
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)
Permissible range (min./max.)	9.6 V ... 60 V DC
Input current	approx. 200 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-10 °C ... +70 °C
Approvals	UL 508
MTBF	825.000 h

Identification	Part number	Drawing	Dimensions in mm
Ha-VIS eCon 3061-AE Ethernet Switch with 6 RJ45 ports 1 F.O. port	20 76 107 3200		



Ethernet Switch Ha-VIS eCon 3062-AE

8-port Ethernet Switch for vertical installation in control cabinets,
including 2 F.O. ports (ST, MM)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
Number of ports, Copper / Termination	6x 10/100Base-T(X) / RJ45 (Twisted Pair)		
Number of ports, F.O. / Termination	2x 100Base-FX / ST female		
Input voltage / Termination	24 V DC / 3-pole, pluggable screw contact (24 V, 0, FE)		
Permissible range (min./max.)	9.6 V ... 60 V DC		
Input current	approx. 240 mA (at 24 V DC)		
Housing material	metal, powder-coated		
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)		
Weight	approx. 0.6 kg		
Working temperature	-10 °C ... +70 °C		
Approvals	UL 508		
MTBF	825.000 h		

Identification	Part number	Drawing	Dimensions in mm
Ha-VIS eCon 3062-AE Ethernet Switch with 6 RJ45 ports 2 F.O. ports	20 76 108 3200		



Ethernet Media converter

Ha-VIS eCon 3011-AD

2-port Ethernet Media converter for vertical installation in control cabinets, including 1 F.O. port (SC, MM)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
Number of ports, Copper / Termination	1x 10/100Base-T(X) / RJ45 (Twisted Pair) PoE support		
Number of ports, F.O. / Termination	1x 100Base-FX / SC-D female		
mode PoE			
Input voltage / Termination	48 V DC		
Permissible range (min./max.)	46 V ... 57 V DC		
Input current	approx. 100 mA ... 400 mA at 48 V DC with PoE		
mode Non-PoE			
Input voltage / Termination	24 V DC / 5-pole, pluggable screw contact, redundant (PWR1 + / PWR1 - / PWR2 + / PWR2 - / FE)		
Permissible range (min./max.)	12 V ... 30 V DC		
Input current	approx. 100 mA (at 24 V DC)		
Housing material	metal, powder-coated		
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)		
Weight	approx. 0.6 kg		
Working temperature	-40 °C ... +70 °C		
Approvals	cUL (in preparation)		
MTBF	2.055.000 h		

Identification	Part number	Drawing	Dimensions in mm
Ha-VIS eCon 3011-AD Ethernet Switch with 1 RJ45 port 1 F.O. port	20 76 102 3100		



Ethernet Media converter Ha-VIS eCon 3011-ASFP

2-port Ethernet Media converter for vertical installation in control cabinets,
including 1 F.O. port (SFP)

Unmanaged	IP 30	PROFINET compatible <input checked="" type="checkbox"/>	EtherNet/IP compatible <input checked="" type="checkbox"/>
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Number of ports, Copper / Termination	1x 10/100Base-T(X) / RJ45 (Twisted Pair) PoE support
Number of ports, F.O. / Termination	1x 100Base-FX / SFP module slot
mode PoE	
Input voltage / Termination	48 V DC
Permissible range (min./max.)	46 V ... 57 V DC
Input current	approx. 100 mA ... 400 mA at 48 V DC with PoE
mode Non-PoE	
Input voltage / Termination	24 V DC / 5-pole, pluggable screw contact, redundant (PWR1 + / PWR1 - / PWR2 + / PWR2 - / FE)
Permissible range (min./max.)	12 V ... 30 V DC
Input current	approx. 100 mA (at 24 V DC)
Housing material	metal, powder-coated
Dimensions (W x H x D)	23 x 130 x 100 mm (without connectors)
Weight	approx. 0.6 kg
Working temperature	-40 °C ... +70 °C
Approvals	cUL (in preparation)
MTBF	2.090.000 h

Identification	Part number	Drawing	Dimensions in mm
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Ha-VIS eCon 3011-ASFP
Ethernet Switch with
1 RJ45 port
1 F.O. port

20 76 102 3101

