General description

The Ha-VIS eCon 3000 Fast Ethernet family of unmanaged Ethernet switches is equipped with up to 10 Fast Ethernet ports and allow for cost-efficient and quick expansion and/or reconstruction of network infrastructures. The slender design of the switches enables an extremely high packing density on the DIN rail. The selection includes various combinations of variants with RJ45 and fibre optic ports. Automatic detection of the transmission rate (auto-negotiation) and of the wiring of the twisted pair data cable (auto-polarity and auto-MDIX) allow for simple plug and play. All variants are available with the temperature ranges "Industrial" and "Commercial".

Technical characteristics

3 to 10 Ethernet ports RJ45 and SC
Unmanaged plug and play Ethernet switches for DIN rail assembly in control cabinets
Commercial temp.: 0 °C ... +55 °C / Industrial temp.: -40 °C ... +70 °C

- Fast Ethernet Non-Blocking switch architecture in accordance with IEEE 802.3
- Variants with industrial temperature range of -40 °C ... +70 °C
- Wide range power supply 24/48 VDC
- Surge protection and reverse polarity protection
- Minimum energy consumption due to energy-efficient Ethernet
- Optimised DIN rail bracket

Target markets

<table>
<thead>
<tr>
<th>Machinery &amp; Robotics</th>
<th>Automation</th>
<th>Industrial network infrastructures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind Energy, Solar Energy</td>
<td>Transportation</td>
<td>Shipbuilding</td>
</tr>
</tbody>
</table>

Switch features

- Enclosure width: 25 mm, 38 mm
- Number of ports: 3, 5, 6, 7, 8, 9, 10
- Switching technology: Store and Forward
- Supported standards: IEEE 802.3
- Frame size: 1522 bytes, 1632 bytes
- MAC table size: 1k entries, 2k entries
- Packet buffer size: 448 kbit, 1 Mbit
- Non-blocking: Yes
- Quality of Service: Yes
- Energy Efficient Ethernet: Yes
- PROFINET compatible: Yes
- EthernetIP compatible: Yes

Power supply

- Nominal voltage: 24 VDC, 48 VDC
- Permissible voltage range: 9 VDC ... 60 VDC
- Surge protection: Yes
- Reverse polarity proof: Yes
- Starting current: 1.6 A, 3.2 A
- Overcurrent protection at input: JA [12 A für <=8 Ports] / (2 A für >8 Ports)
- Max. power consumption @ 24 VDC: 1.80 W ... 6.72 W
- Conductor cross-section: 0.08 mm² ... 2.5 mm² (28 AWG ... 12 AWG)
- Type of connection: 3-pole, pluggable screw type terminal block
- Pinout: + / - / 
- Supply circuit (according to 60950): SELV (circuit breaker 10 A)

Ethernet ports 10BASE-T / 100BASE-TX EEE

- Type of connection: RJ45
- Auto-negotiation: Yes
- Auto-polarity: Yes
- Auto-MDIX: Yes
- Transfer conditions: Twisted pair
- Transfer speed: 10 / 100 Mbit/s
- Transfer length: 100 m (Twisted Pair, Cat 5)

Ethernet ports 100BASE-FX

- Type of fibre: Multi-mode (MM), Single-mode (SM)
- Type of connection: SC Duplex, FOC
- Wavelength: 1310 nm
- Transfer speed: 100 Mbit/s
- Transfer length: 2 km, 15 km
- Output power: -20 dBm ... -14 dBm, -15 dBm ... -8 dBm
- Input sensitivity: ≤ -30 dBm, ≤ -32 dBm

Environmental conditions

- Commercial temperature range: 0 °C ... +55 °C
- Industrial temperature range: -40 °C ... +70 °C
- Storage temperature range: -40 °C ... +85 °C
- Relative humidity (operation): 0 % ... 95 % (non-condensing)
- Relative humidity (storage and transport): 0 % ... 95 % (non-condensing)
- Air pressure: 2000 m (795 hPa)

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Technical characteristics / order information

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<th>RJ45</th>
<th>SFP</th>
<th>SC</th>
<th>Enclosure width</th>
<th>Power consumption @ 24 VDC</th>
<th>MTBF in million h</th>
<th>Commercial temp.: 0 °C ... +55 °C</th>
<th>Industrial temp.: -40 °C ... +70 °C</th>
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