

## Ethernet Switch Ha-VIS mCon 4080-BPoE1V



### Advantages

- Qualified for PoE applications, e.g. security cameras, access points
- Powering of IEEE 802.3af compliant powered devices (PD) with reduced cabling
- EMC, temperature range and mechanical stability for toughest demands
- Robust metal housing and flat housing style
- Designed for railway and industrial applications

### Technical Characteristics

The Fast Ethernet Switches of the product family Ha-VIS mCon 4000 are recommended for use in the widest range of industrial and railway applications and support both Ethernet (10 Mbit/s) and Fast Ethernet (100 Mbit/s). The product family enables the connection of up to 8 network devices over shielded Twisted Pair cables.

The Ethernet Switches support both SNMP and an easy Web interface for management functions.

The robust M12 interface shows its advantages especially in applications at risk of vibrations.

Identification

Part number

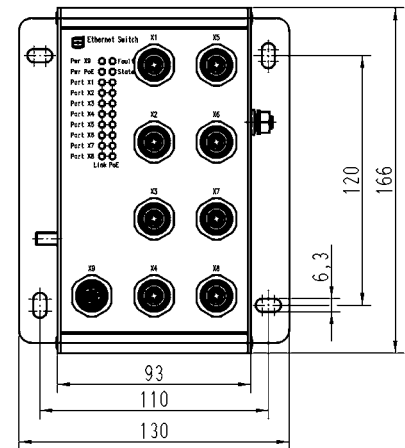
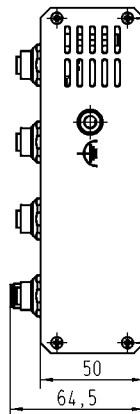
Drawing

Dimensions in mm

Ha-VIS mCon 4080-BPoE1V

Ethernet Switch; managed  
8 ports;  
M12 D-coding

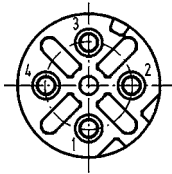
20 77 208 4009



## Technical Characteristics

### Ethernet interface

Number of ports	8x 10/100Base-T(X)
Cable types acc. to IEEE 802.3	Shielded Twisted Pair (STP) or Unshielded Twisted Pair (UTP), Category 5
Data rate	10 Mbit/s or 100 Mbit/s
Maximum cable length	100 m (Twisted Pair; with Category 5 cable acc. to DIN EN 50 173-1)
Termination	M12 D-coding
Contact assignment M12 D-coding:	



Pin 1:	TD+	Pin 3:	TD-
Pin 2:	RD+	Pin 4:	RD-

PoE voltage is fed in via the pins onto the data signal pairs;  
phantom supply

Diagnostics (per port)  
LED *Link*

LED *PoE*

#### Status

- ON Link
- flashing Activity
- OFF No PoE device connected
- Green PoE device connected
- Red connected PoE device with error

#### Data transfer rate

- Green 10 Mbit/s
- Yellow 100 Mbit/s

Topology

Line, Ring, Star or mixed

### Power supply

#### Mode *Non-PoE*

Input voltage	24 / 48 V DC
Permissible range (min/max)	12 ... 55 V DC
Input current	approx. 350 mA (at 24 V DC)

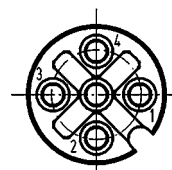
#### Mode *PoE*

Input voltage	48 V DC (46 ... 55 V DC)
Max. input current	max. 3.0 A (at 48 V DC / load 350 mA each port)
Output voltage	48 V DC (46 ... 57 V DC)
Output power	15.4 W per port
Output current	0.35 A
Type	Mode A

Termination

M12 A-coding, male, redundant power supply only for mode *Non-PoE*

Contact assignment M12 A-coding:



Contact No.	Power supply	Potential	Modus
1	US 1	48 V DC / 24 V DC	<i>PoE / Non-PoE</i>
2	US 1	0 V	<i>PoE / Non-PoE</i>
3	US 2	0 V	<i>Non-PoE</i>
4	US 2	24 V DC	<i>Non-PoE</i>

US 1 ... first operating power supply  
US 2 ... second operating power supply

## Technical Characteristics

### Diagnostics

LED <i>Pwr x9 / Pwr PoE</i>		Pwr x9 (Switch)	Pwr PoE (Mode <i>PoE</i> )
	• Green	Power supply connected	> 46 V DC
	• OFF	no power supply	< 46 V DC
LED Fault	• Red *	Error detected (configurable on event via Web interface or SNMP) * ... also short ON during boot up	
LED <i>State</i>	• Green	PoE ok	
	• Red	< 46 V DC	

### Design features

Housing material	Metal (powder coated)
Dimensions (W x H x D)	130 x 166 x 50 mm
Degree of protection acc. to DIN 60529	IP 30
Mounting	Wall mounting, flat (4x M6 screws)
Weight	approx. 0.85 kg

### Environmental conditions

Operating temperature	-40 °C ... +70 °C
Storage temperature	-40 °C ... +85 °C
Relative humidity	10 % ... 95 % (non-condensing)

### Mechanical solidness

Shock	IEC 60 068-2-27, IEC 61 373
Vibration	IEC 60 068-2-6
Rail-standard	EN 50 155

### EMC standards

Interference immunity ESD	IEC 61 000-4-2
Interference immunity, HF radiated	IEC 61 000-4-3
Interference immunity, Burst	IEC 61 000-4-4
Interference immunity	IEC 61 000-4-5
Interference immunity	IEC 61 000-4-6
Interference immunity	IEC 61 000-4-8
Interference emission	EN 55 022
Emitted radiation	EN 55 011, Class A; EN 55 022 Class A; EN 50 081
Rail-standard	EN 50 155; EN 50 121-3-2

## 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	
	Flow Control disable / enable	
Network Discovery	Link Layer Discovery Protocol (LLDP)	802.1AB, 2005
PoE	Power over Ethernet Support *	IEEE 802.1af
Rate Control	Rate Control per port * (Broadcast, Multicast, Unicast)	
File Transfer	Firmware import and export via TFTP and HTTP	
	Configuration import and export via TFTP and HTTP	
Time Settings	Manual time setting	
	Simple Network Time Protocol (SNTP)	RFC 1305, RFC 4330
User Management	Admin, Guest and Service Level	
Service	Service Mode via port 1	
QoS		
	Quality of Service (QoS)	IEEE 802.1p
	DiffServ	RFC 2474, 2475
VLAN		
	Port protocol based VLANs	IEEE 802.1Q Rev D5.0, 2005
Redundancy		
	Spanning Tree (STP)	IEEE 802.1D (2004)
	Rapid Spanning Tree (RSTP)	IEEE 802.1D (2004)
Security		
	Port-Based Network Access Control * Port Based Authentication with EAP	802.1x (2004)
	RADIUS Client *	RFC 2138
	IP authorized manager	
Link Aggregation		
	Link Aggregation (LACP)	IEEE 802.3ad (2005)
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
Alarm		
	Alarms via E-mail (SMTP) and SNMP Traps	
Diagnostic		
	Port diagnostic	
	Port Mirroring	
	Switch History	
	MAC Address Table	
	RMON (1,2,3 & 9 groups) *	RFC 2819
Management		
	Password protected Web-Management interface	
	SNMP (v1, v2c, v3) agent & MIB support	
* ... available in software version 2.2 and higher		