

Management function

Basic functions

- ‡ Store and Forward Switch (IEEE 802.3.2)
- ‡ Multicast filtering and band width limiting
- ‡ IGMP Snooping and Querier
- ‡ VLAN
- ‡ Rapid Spanning Tree (RSTP)
- ‡ QoS (802.1p)
- ‡ DHCP Client

SNMP

- ‡ SNMP V1 and SNMP V3
- ‡ Enterprise (HARTING MIB)
- ‡ MIB II
 - ‡ RMON (statistic, history, alarm, events)
 - ‡ Dot1Bridge
 - ‡ SnmpDot3mauMIB
 - ‡ PtopoMIB
 - ‡ EntityMIB
 - ‡ RstpMIB
 - ‡ System
 - ‡ ifMIB
 - ‡ Icmp
 - ‡ Ip
 - ‡ Tcp
 - ‡ at
 - ‡ Udp
 - ‡ Snmp
 - ‡ transmission

**Web-based access
(password protection)**

- ‡ Status overview
- ‡ Port settings
- ‡ Network configuration
- ‡ Password settings
- ‡ Alarm settings
- ‡ Diagnostic
- ‡ Parameter Import / Export
- ‡ Firmware Import / Export

Additional services

- ‡ DHCP
- ‡ SMTP
- ‡ Parameter and firmware import and export via TFTP
- ‡ System time via SNTP
- ‡ Service Mode via port 1

Diagnostic

- ‡ LEDs for Power, Link, Status, Data transmission and Fault
- ‡ Port diagnostic
- ‡ Port Mirroring
- ‡ History
- ‡ Alarms via E-mail or SNMP Traps
- ‡ Signalling contact for low voltage detection
or Link break

**Ethernet Switch
HARTING mCon 7100**

Ethernet switch, managed, for harsh industrial environments;
including interface to external configuration memory



General Description

If additional services for networks in harsh industrial environments (filtering, prioritisation, topology), or individual network configurations are required, then the Fast Ethernet switches of the product family HARTING mCon 7100 come into play.

These managed switches allow the connection of up to 10 end-units over IEC 802.3 Shielded Twisted-Pair cabling. Protection class, temperature range and mechanical stability satisfy the highest requirements. These Fast Ethernet switches can therefore be directly used in industrial environments.

They support both:
SNMP and an easy Web-Interface for management functions.

Features

- ▮ Ethernet switch acc. to IEEE 802.3
- ▮ Store and Forward Switching Mode
- ▮ 10 Ports, managed, non blocking
- ▮ Auto-Crossing, Auto-negotiation, Auto-polarity
- ▮ Ethernet (10 Mbit/s) and Fast Ethernet (100 Mbit/s)
- ▮ Diagnostic LEDs (Link status, Data, Power, Error)

Advantages

- ▮ High Degree of protection IP 65 / IP 67
- ▮ Robust metal housing, zinc die-cast
- ▮ Can be used directly in industrial environments
- ▮ EMC, temperature range and mechanical stability meet the highest demands
- ▮ Integrated management functions

Application fields

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

Technical characteristics

Ethernet Interface

Number of ports	10x 10/100Base-TX
Cable types	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 (with Category 5 cable acc. to EN 50 173)
Termination device-side	Han® 3 A RJ45 (female) M12 D-coding (female)
Diagnostics (via LED)	<ul style="list-style-type: none"> ‡ Status Link – Green ‡ Data transfer (Act) – Yellow flashed ‡ Data transfer rate (Speed) – 100 Mbit/s: Yellow / 10 Mbit/s: OFF
Topology	Line, Star or mixed

Power supply

Input voltage	24 V DC (12 to 48 V DC)
Termination device-side	Han® 4 A (male), redundant power supply (incl. Fixing screw 09 20 000 99 8, to maintain IP 67)) M12 A-coding (male), redundant power supply
Diagnostic (via LED)	Power supply – Green

Interface to external configuration memory

Termination device-side	Han-Brid® Cu (female)
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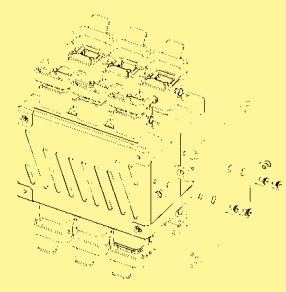
Design features

	mCon 7100
Material of housing	Zinc die-cast
Dimensions (W x H x D)	90 x 120 x 87 mm
Degree of protection acc. to DIN 60 529	IP 65 / IP 67
Mounting	Panel mounting, vertical assembly
Weight	approx. 1,4 kg

Environmental conditions

Operating temperature	– 40 °C to + 70 °C
Storage temperature	– 40 °C to + 85 °C
Relative humidity	30 % to 95 % (non-condensing)

Identification	Part number	
	Power supply	Interface
Hood metal, straight, metric	19 20 003 1440 ¹⁾	19 20 003 1440
Protection cover Han® 3 A	09 20 003 5426	09 20 003 5426
Han® 4 A female insert	09 20 004 2711	
Cable gland metal IP 65, metric M20, cable diameter: 5 - 9 mm	19 00 000 5080	
HARAX® M12-L circular connector A-coding	21 03 212 2305	

Identification	Part number	Drawing	Dimensions in mm
Set for panel mounting mCon 7100 vertical assembly	20 80 010 0002		

¹⁾ Order insert fixing screw 09 20 000 9918 separately

Ethernet Switch HARTING mCon 7100-A2

10-Port Ethernet Switch for use in harsh industrial environments;
including interface to external configuration memory



managed	IP 65	PROFINET available <input checked="" type="checkbox"/>	EtherNet/IP adapted <input checked="" type="checkbox"/>
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Number of ports Copper / Termination 10x 10/100Base-TX / Han® 3 A RJ45 (female)*

Input voltage / Termination 24 V DC Han® 4 A (Male)*
redundant power supply

Permissible range 12 V to 48 V DC

Input current approx. 280 mA (at 24 V DC)

Interface to external configuration memory Han-Brid® Cu (female)

Material of housing Zinc die-cast

Dimensions (W x H x D) 90 x 120 x 87 mm (without connectors)

Weight approx. 1,4 kg

Operating temperature – 40 °C to + 70 °C

Approvals cUL (in preparation)

Management full managed via Web interface and SNMP
Functions see page A·M 2

Identification	Part number	Drawing	Dimensions in mm
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HARTING mCon 7100-A2

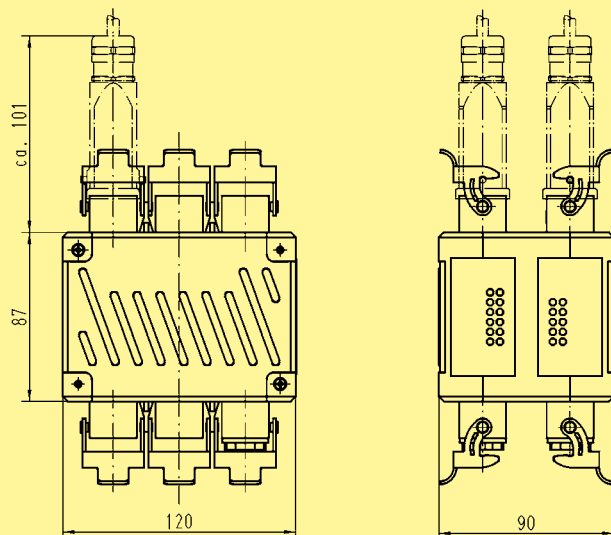
Ethernet switch, managed
Han® 3 A RJ45

20 70 310 4923

CM 7100

External configuration memory for
Ethernet switch mCon 7100-A2 /
mCon 7100 B2

20 70 310 4001



* Order insert fixing screw 09 20 000 9918 separately

Ethernet Switch HARTING mCon 7100-B2

10-Port Ethernet Switch for industrial Ethernet networks
with M12 system cabling;
including interface to external configuration memory



managed	IP 67	PROFINET available <input checked="" type="checkbox"/>	EtherNet/IP adapted <input checked="" type="checkbox"/>
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Number of ports Copper / Termination 10x 10/100Base-TX / M12 D-coding (female)

Input voltage / Termination 24 V DC M12 A-coding (male),
redundant power supply

Permissible range 12 V to 48 V DC

Input current approx. 280 mA (at 24 V DC)

Interface to external configuration memory Han-Brid® Cu (female)

Material of housing Zinc die-cast

Dimensions (W x H x D) 90 x 120 x 87 mm (without connectors)

Weight approx. 1,4 kg

Operating temperature - 40 °C to + 70 °C

Approvals cUL (in preparation)

Management full managed via Web interface and SNMP
Functions see page A·M 2

Identification	Part number	Drawing	Dimensions in mm
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HARTING mCon 7100-B2
Ethernet Switch, managed
M12 D-coding

20 70 310 4943

CM 7100

External configuration memory for
Ethernet switch mCon 7100-A2 /
mCon 7100 B2

20 70 310 4001

