

# HARTING



mCon 3000 Family



People | Power | Partnership



## Advantages & Characteristics

- Network redundancy through RSTP
- Supports VLAN and IGMP Snooping
- Easy configuration via web interface
- Alarm by Email
- Diverse diagnostics
- Redundant power supply
- Potential-free signalling contact
- Robust metal housing
- High immunity to shock and vibration

## Automation IT – with mCon Switches from HARTING

With the new mCon 3000 Series, HARTING has expanded its range of managed Ethernet switches. The series offers a broad spectrum of possibilities: in addition to the standard functions already present in the sCon and eCon Series, the mCon switch offers management functions, with which a convergent network can be set up and administered from a central point.

Support of VLAN allows the mCon switches to be used to segment a network, which results in better control of communication flow and the avoidance of unnecessary network loads. IGMP functionality ensures that large data transfers only go where they are needed and with RSTP redundant networks can be set up, which means that a network will continue to function even after a component has dropped out.

At the same time, the configuration and management of the mCon switches is made simply: either via SNMP tools, network management software or very easily via a web interface.

HARTING mCon switches can be used in many applications, offer professional solutions for the operation of Ethernet networks and are simple to install and use. In addition to Fast Ethernet ports, the mCon 3000 series also offers Gigabit and Fibre Optics ports.



# Technical Data

## mCon 3000 - SC -



|  |                              |  |  |              |              |              |                              |                              |                              |
|--|------------------------------|--|--|--------------|--------------|--------------|------------------------------|------------------------------|------------------------------|
| Power Supply                                       |                              |  |  |              |              |              |                              |                              |                              |
| Input voltage                                      |                              | 24 V DC  |  |              |              |              |                              |                              |                              |
| Reliable range                                     |                              | 12 V to 30 V   |  |              |              |              |                              |                              |                              |
| Input current                                      |                              | <table><tr><td>mCon 3061-AD</td><td>mCon 3082-AD</td><td>mCon 3063-AD</td></tr><tr><td>ca. 240 mA<br/>(at 24 V DC)</td><td>ca. 260 mA<br/>(at 24 V DC)</td><td>ca. 290 mA<br/>(at 24 V DC)</td></tr></table>       |  | mCon 3061-AD | mCon 3082-AD | mCon 3063-AD | ca. 240 mA<br>(at 24 V DC)   | ca. 260 mA<br>(at 24 V DC)   | ca. 290 mA<br>(at 24 V DC)   |
| mCon 3061-AD                                       | mCon 3082-AD                 | mCon 3063-AD   |  |              |              |              |                              |                              |                              |
| ca. 240 mA<br>(at 24 V DC)                         | ca. 260 mA<br>(at 24 V DC)   | ca. 290 mA<br>(at 24 V DC)   |  |              |              |              |                              |                              |                              |
| Voltage supply                                     |                              | Pluggable, 5-pole Terminal block<br>for redundant power supply   |  |              |              |              |                              |                              |                              |
| Diagnostics (LED)                                  |                              | Power<br>Fault   |  |              |              |              |                              |                              |                              |
| Ethernet Interface RJ45                            |                              |  |  |              |              |              |                              |                              |                              |
| Number of ports                                    |                              | <table><tr><td>mCon 3061-AD</td><td>mCon 3082-AD</td><td>mCon 3063-AD</td></tr><tr><td>6x 10/100Base-TX,<br/>managed</td><td>8x 10/100Base-TX,<br/>managed</td><td>6x 10/100Base-TX,<br/>managed</td></tr></table> |  | mCon 3061-AD | mCon 3082-AD | mCon 3063-AD | 6x 10/100Base-TX,<br>managed | 8x 10/100Base-TX,<br>managed | 6x 10/100Base-TX,<br>managed |
| mCon 3061-AD                                       | mCon 3082-AD                 | mCon 3063-AD   |  |              |              |              |                              |                              |                              |
| 6x 10/100Base-TX,<br>managed                       | 8x 10/100Base-TX,<br>managed | 6x 10/100Base-TX,<br>managed   |  |              |              |              |                              |                              |                              |
| Data rate  |                              | 10 Mbit/s or 100 Mbit/s (RJ45)   |  |              |              |              |                              |                              |                              |
| Connector  |                              | RJ45 (Twisted Pair)  |  |              |              |              |                              |                              |                              |
| Diagnostics (LED)                                  |                              | - Connection (Link) - green<br>- Data transfer (Act) - flashing green<br>- Data transfer rate (Speed)<br>- 100 Mbit/s: yellow<br>- 10 Mbit/s: OFF  |  |              |              |              |                              |                              |                              |
| Topology   |                              | Line- / Star-topology, Mixed   |  |              |              |              |                              |                              |                              |
| Ethernet Interface<br>Fibre Optic                  |                              |  |  |              |              |              |                              |                              |                              |
| Number of ports                                    |                              | <table><tr><td>mCon 3061-AD</td><td>mCon 3082-AD</td><td>mCon 3063-AD</td></tr><tr><td>1x 100Base-FX<br/>managed</td><td>2x 100Base-FX<br/>managed</td><td>3x 100Base-FX<br/>managed</td></tr></table>             |  | mCon 3061-AD | mCon 3082-AD | mCon 3063-AD | 1x 100Base-FX<br>managed     | 2x 100Base-FX<br>managed     | 3x 100Base-FX<br>managed     |
| mCon 3061-AD                                       | mCon 3082-AD                 | mCon 3063-AD   |  |              |              |              |                              |                              |                              |
| 1x 100Base-FX<br>managed                           | 2x 100Base-FX<br>managed     | 3x 100Base-FX<br>managed   |  |              |              |              |                              |                              |                              |
| Cable type according to IEEE 802.3 Multimode-Fibre |                              | 50 / 125 µm or 62,5 / 125 µm   |  |              |              |              |                              |                              |                              |
| Data rate  |                              | 100 Mbit/s   |  |              |              |              |                              |                              |                              |
| Maximum cable length                               |                              | 2000 m   |  |              |              |              |                              |                              |                              |
| Connector  |                              | SC-D Connector   |  |              |              |              |                              |                              |                              |
| Diagnostics (LED)                                  |                              | - Connection (Link) - green<br>- Data transfer (Act) - flashing green  |  |              |              |              |                              |                              |                              |
| Wavelength   |                              | 1300 nm  |  |              |              |              |                              |                              |                              |

## mCon 3000 - without FO -



|                                |  |   |
|--------------------------------|--|---|
| <b>Power Supply</b>            |  |   |
| Input voltage                  |  | 24 V DC   |
| Reliable range                 |  | 12 V to 30 V  |
| Input current                  |  | mCon 3100-A<br>ca. 170 mA<br>(at 24 V DC)   |
|                                |  | mCon 3100-AA<br>ca. 250 mA<br>(at 24 V DC)  |
| Voltage supply                 |  | Pluggable, 5-pole Terminal block<br>for redundant power supply  |
| Diagnostics (LED)              |  | Power<br>Fault  |
| <b>Ethernet Interface RJ45</b> |  |   |
| Number of ports                |  | mCon 3100-A<br>10x 10/100Base-TX,<br>managed  |
|                                |  | mCon 3100-AA<br>8x 10/100BaseTX,<br>2x 10/100/1000 Base TX,<br>managed  |
| Data rate                      |  | 10 Mbit/s, 100 Mbit/s, 1000 Mbit/s (RJ45)   |
| Connector                      |  | RJ45 (Twisted Pair)   |
| Diagnostics (LED)              |  | - Connection (Link) - green<br>- Data transfer (Act) - flashing green<br>- Data transfer rate (Speed)<br>- 1000 Mbit/s: green<br>- 100 Mbit/s: yellow<br>- 10 Mbit/s: OFF |
| Topology                       |  | Line- / Star-topology, Mixed  |

### Mechanical Data

(same for all sCon devices)

|  |                                       |
|--|---------------------------------------|
| Housing material                             | Metal (powder coated)                 |
| Dimensions (W x H x D)                       | 60 x 100 x 130 mm (without connector) |
| Degree of Protection according to DIN 60 529 | IP 30                                 |

### Environmental Conditions

|                       |                  |
|-----------------------|------------------|
| Operating temperature | 0 °C to +70 °C   |
| Storage temperature   | -40 °C to +85 °C |

## mCon 3000 - ST -



|  |                              |  |  |              |              |              |                              |                              |                              |
|--|------------------------------|--|--|--------------|--------------|--------------|------------------------------|------------------------------|------------------------------|
| Power Supply                                       |                              |  |  |              |              |              |                              |                              |                              |
| Input voltage                                      |                              | 24 V DC  |  |              |              |              |                              |                              |                              |
| Reliable range                                     |                              | 12 V to 30 V   |  |              |              |              |                              |                              |                              |
| Input current                                      |                              | <table><tr><td>mCon 3061-AE</td><td>mCon 3082-AE</td><td>mCon 3063-AE</td></tr><tr><td>ca. 240 mA<br/>(at 24 V DC)</td><td>ca. 260 mA<br/>(at 24 V DC)</td><td>ca. 290 mA<br/>(at 24 V DC)</td></tr></table>       |  | mCon 3061-AE | mCon 3082-AE | mCon 3063-AE | ca. 240 mA<br>(at 24 V DC)   | ca. 260 mA<br>(at 24 V DC)   | ca. 290 mA<br>(at 24 V DC)   |
| mCon 3061-AE                                       | mCon 3082-AE                 | mCon 3063-AE   |  |              |              |              |                              |                              |                              |
| ca. 240 mA<br>(at 24 V DC)                         | ca. 260 mA<br>(at 24 V DC)   | ca. 290 mA<br>(at 24 V DC)   |  |              |              |              |                              |                              |                              |
| Voltage supply                                     |                              | Pluggable, 5-pole Terminal block<br>for redundant power supply   |  |              |              |              |                              |                              |                              |
| Diagnostics (LED)                                  |                              | Power<br>Fault   |  |              |              |              |                              |                              |                              |
| Ethernet Interface RJ45                            |                              |  |  |              |              |              |                              |                              |                              |
| Number of ports                                    |                              | <table><tr><td>mCon 3061-AE</td><td>mCon 3082-AE</td><td>mCon 3063-AE</td></tr><tr><td>6x 10/100Base-TX,<br/>managed</td><td>8x 10/100Base-TX,<br/>managed</td><td>6x 10/100Base-TX,<br/>managed</td></tr></table> |  | mCon 3061-AE | mCon 3082-AE | mCon 3063-AE | 6x 10/100Base-TX,<br>managed | 8x 10/100Base-TX,<br>managed | 6x 10/100Base-TX,<br>managed |
| mCon 3061-AE                                       | mCon 3082-AE                 | mCon 3063-AE   |  |              |              |              |                              |                              |                              |
| 6x 10/100Base-TX,<br>managed                       | 8x 10/100Base-TX,<br>managed | 6x 10/100Base-TX,<br>managed   |  |              |              |              |                              |                              |                              |
| Data rate  |                              | 10 Mbit/s or 100 Mbit/s (RJ45)   |  |              |              |              |                              |                              |                              |
| Connector  |                              | RJ45 (Twisted Pair)  |  |              |              |              |                              |                              |                              |
| Diagnostics (LED)                                  |                              | - Connection (Link) - green<br>- Data transfer (Act) - flashing green<br>- Data transfer rate (Speed)<br>- 100 Mbit/s: yellow<br>- 10 Mbit/s: OFF  |  |              |              |              |                              |                              |                              |
| Topology   |                              | Line- / Star-topology, Mixed   |  |              |              |              |                              |                              |                              |
| Ethernet Interface<br>Fibre Optic                  |                              |  |  |              |              |              |                              |                              |                              |
| Number of ports                                    |                              | <table><tr><td>mCon 3061-AE</td><td>mCon 3082-AE</td><td>mCon 3063-AE</td></tr><tr><td>1x 100Base-FX<br/>managed</td><td>2x 100Base-FX<br/>managed</td><td>3x 100Base-FX<br/>managed</td></tr></table>             |  | mCon 3061-AE | mCon 3082-AE | mCon 3063-AE | 1x 100Base-FX<br>managed     | 2x 100Base-FX<br>managed     | 3x 100Base-FX<br>managed     |
| mCon 3061-AE                                       | mCon 3082-AE                 | mCon 3063-AE   |  |              |              |              |                              |                              |                              |
| 1x 100Base-FX<br>managed                           | 2x 100Base-FX<br>managed     | 3x 100Base-FX<br>managed   |  |              |              |              |                              |                              |                              |
| Cable type according to IEEE 802.3 Multimode-Fibre |                              | 50 / 125 µm or 62,5 / 125 µm   |  |              |              |              |                              |                              |                              |
| Data rate  |                              | 100 Mbit/s   |  |              |              |              |                              |                              |                              |
| Maximum cable length                               |                              | 2000 m   |  |              |              |              |                              |                              |                              |
| Connector  |                              | ST Connector   |  |              |              |              |                              |                              |                              |
| Diagnostics (LED)                                  |                              | - Connection (Link) - green<br>- Data transfer (Act) - flashing green  |  |              |              |              |                              |                              |                              |
| Wavelength   |                              | 1300 nm  |  |              |              |              |                              |                              |                              |



## Features & Functions of the mCon 3000

### Basic Functions

- Store and Forward Switching Mode (IEEE 802.3)
- Multicast filtering and bandwidth 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 (statistics, history, alarm, events)
  - Dot1Bridge
  - SnmpDot3mauMIB
  - PtopoMIB
  - EntityMIB
  - RstpMIB
- System
- ifMIB
- ICMP
- IP
- TCP
- AT
- UDP
- SNMP
- Transmission

### Web-based access (password protection)

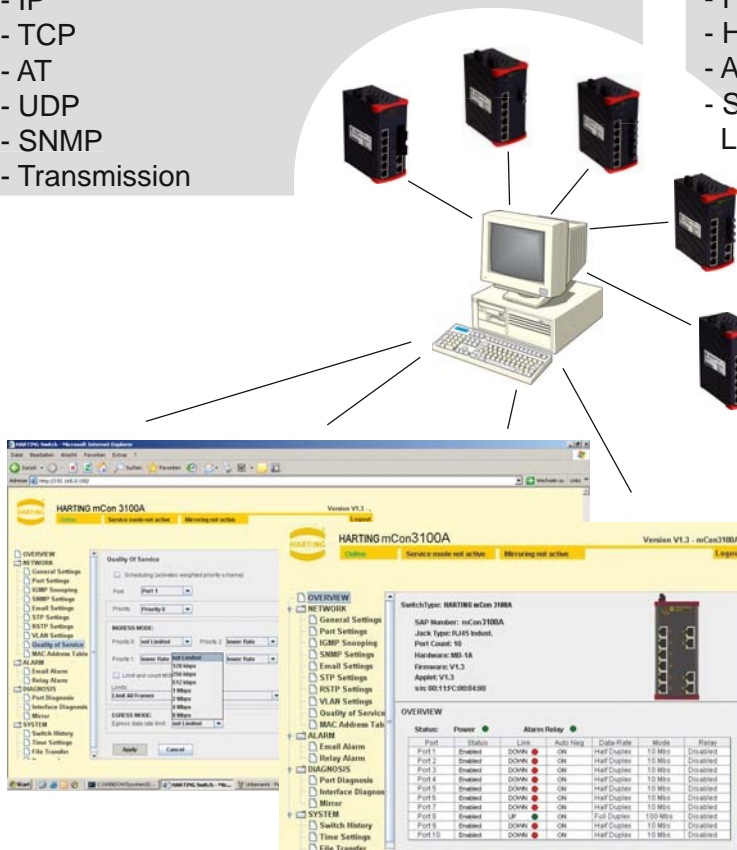
- Status overview
- Port settings
- Network configuration
- Password settings
- Alarm settings
- Diagnostics
- Parameter Import / Export
- Firmware Import / Export

### Additional services

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

### Diagnostics

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



The mCon 3000 switch can, through its java applet, be conveniently accessed and configured via a normal internet browser. The applet is password protected and comes with a range of access levels. An easy-to-use menu allows the mCon 3000 Family to be customised and adapted to a specific network.

**HARTING Electric GmbH & Co. KG**  
 Wilhelm-Harting-Straße 1, D-32339 Espelkamp  
 Postfach 14 73, D-32328 Espelkamp  
 Telefon: +49 57 72 47-97 100  
 Telefax: +49 57 72 47-4 95  
 E-Mail: [HARTING.electric@HARTING.com](mailto:HARTING.electric@HARTING.com)  
 Internet: [www.HARTING.com](http://www.HARTING.com)





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