

# MC4

## 802.11a/b/g/n WLAN Ethernet Adapter

### Description:

The MC4 provides network connections between devices equipped with Ethernet ports or serial interfaces and wireless LAN networks. The typical usage area for the MC4 is the broad field of industrial WLAN applications in machine-to-machine communication. This includes mobile installations such as forklifts or AGV's.

### Properties:

#### Hardware:

- Processor board with ARM® Cortex®-A9 Core
- Memory: 128MByte DDR-RAM and 4GB Flash
- 802.11a/b/g/n for 2.4 + 5 GHz WLAN, Data rate up to 300 MBit/s
- 4 x Gigabit LAN interface
- USB2 Port also for interface extension
- 1 x relay switch
- 1 x aux input
- Power supply 10-60V or 802.3af PoE via LAN Port 1
- Robust aluminum housing with various mounting options

#### Functions:

- Configuration and Firmware upgrade via the website, REST-API or by using the MC-Config program.
- Different bridge modes to connect the LAN clients.
  - NAT
  - Single Client NAT
  - Single Client Cloning
  - Level 2 Bridge
  - MWLC Mode (transparent tunnel mode)
- WEP, 802.11i WPA-WPA2-WPA3-AES-TKIP-PSK
- WPA Enterprise 802.1x PEAP LEAP TLS TTLS
- Certificate management for authentication via 802.1x
- SCEP (Simple Certificate Enrollment Protocol)
- 802.11r Fast-Roaming
- 802.11k Radio Resource Management
- 802.11e Wi-Fi Multimedia Quality of Service (WMM QoS)
- Serial-Client via TCP or UDP



MC4-SL



MC4-SL-M8



MC4-SL-M12



MC4-SL-WK8



MC4-SC

### Device Options:

#### Mounting:

- 1) side mounting brackets (MC4-SL...)
- 2) DIN rail mounting clip (MC4-SC...)

#### Power supply connection:

- 1) 5 pol. M12 connector (incl Relay) (MC4-Sx-M12)
- 2) 8pol terminal block (Weidmüller) (incl. Relay + Aux. input) (MC4-Sx-WK8)
- 3) 3pol M8 connector (Power supply) (MC4-Sx-M8)

#### Antenna connector:

- 1) 2 x RP-SMA (standard)
- 2) 1 or 2 TNC or RPTNC

#### Serial Interface:

- 1) 1 x RS232 (Standard)
- 2) 1 x RS485 (RS422)

**Technical data:**

|                             |   |
|-----------------------------|---|
| <b>Specification:</b>       |   |
| Ethernet                    | 4 x 10/100/1000 MBit Auto MDI/MDIX  |
| Serial                      | no serial interface (possible with USB to serial adapter)                                       |
| USB                         | 1 x USB 2.0 to connect printers or USB adapter with various other interfaces                    |
| Relay                       | 1 x change-over switch max 1A@24V, max 125VAC   |
| AUX-Input                   | 1 x galv. isolated 10 – 60V isolating voltage >=1000V   |
| Antenna connectors          | 2 x RPSMA (optional TNC or RPTNC)   |
| Power supply                | 10 – 60VDC, galvanically isolated, isolating voltage >=1000V<br>or 802.3af PoE via the LAN Port |
| Energy consumption          | <= 5W (3W typical)  |
| Operating temperature range | 0-60°   |
| Dimensions                  | 105x125x35mm  |
| Weight                      | ca. 400g  |

|                        |   |   |
|------------------------|---|---|
| <b>WLAN-Interface:</b> |   |   |
| Technologies           | 802.11 a/b/g/n WLAN (2.4 + 5 GHz Band)  |   |
| Antennas               | 2 Antennas (2T2R MIMO)  |   |
| Encoding               | WEP (64,128bit) + TKIP/AES  |   |
| Security               | 802.11i WPA(2+3) – PSK<br>802.1x EAP-PEAP, -TLS, -TTLS, -LEAP   |   |
| Roaming                | Fast roaming 802.11r  |   |
| Channels               | 802.11b/g/n ETSI 1-13, USA/Canada 1-11<br>802.11a/n ETSI 19+5, USA/Canada 25 (U-NII-1 + UNII-2A + U-NII-2C+U-NII-3) |   |
| Data rates             | <b>Mode</b>   | <b>Data rate</b>                            |
|                        | 802.11b   | 1, 2, 5.5, 11Mbps                           |
|                        | 802.11g / a   | 6, 9, 12, 18, 24, 36, 48, 54Mbps            |
|                        | 802.11n (20MHz)   | 1Nss: max. 72.2Mbps<br>2Nss: max. 144.4Mbps |
|                        | 802.11n (40MHz)   | 1Nss: max. 150Mbps<br>2Nss: max. 300Mbps    |
| Transmit power         | 802.11b/g 17 dBm  | 802.11a 15 dBm                              |
|                        | 802.11gn 16 dBm   | 802.11an 15 dBm                             |

**Order codes:**

|                                | <b>Option</b>                     | <b>Order code</b>  |
|--------------------------------|-----------------------------------|--------------------|
| <b>Housing</b>                 |                                   |                    |
|                                | Housing with mounting brackets    | MC4-SL....         |
|                                | Housing with DIN-rail-clip        | MC4-SC....         |
| <b>Power supply connection</b> |                                   |                    |
|                                | M12 connector                     | MC4-Sx-M12         |
|                                | 8pol. Weidmüller terminal block   | MC4-Sx-WK8         |
|                                | M8 connector                      | MC4-Sx-M8          |
| <b>IO-Option</b>               |                                   |                    |
|                                | Relay (included in M12 + WK8)     |                    |
|                                | Aux-Input (included in WK8)       | MC4-Sx-M12-INP     |
| <b>Antenna Options</b>         | Standard: 2 x RPSMA               |                    |
|                                | 1 or 2 TNC Antenna connector(s)   | MC4-Sx-xx-1(2)TNC  |
|                                | 1 or 2 RPTNC Antenna connector(s) | MC4-Sx-xx-1(2)RTNC |