





## Company

MC Technologies is a leading European provider of innovative solutions for the remote maintenance and remote control sectors (M2M communications).

We have over 20 years of experience in industrial wireless data transmission.

We supply more than hardware – we can also provide advice on your application, from the designin to serial manufacturing. In addition to this, we can assist you with software development based on technical specification documents.

Our portfolio also includes a broad, attractively priced range of standard products, all designed for industrial use and meeting German quality standards.

Our antennas ensure consistently optimum transmission and reception conditions. We can also assemble cables and connectors as per your requirements.

At our headquarters in Hanover/Germany we have all the facilities required to manufacture highest quality cable assembly solutions customized for your application.

Our advantages are many years of experience and individual personal advice from our competent in-house technical specialists.

As a distributor of industrial connectors for top manufacturers such as Binder, Molex, JST and FCT we can offer you competitive prices and rates.

Simply give us a call or send us an email.

With best regards from Hannover

The MC Technologies team













### M2M/IoT Wireless data terminals, gateways and modules

Our wireless terminals are designed for machine-to-machine (M2M) communication and feature the classic RS232 and USB interfaces. Typical applications are IP-based data exchange and the sending of SMS and e-mail messages. If required, own Java-based applications can be programmed directly on the terminals of the MC89 family.



The MC100 product family is a Linux-based mobile multifunctional platform suitable for industrial applications. The range of applications extends from a simple Ethernet data terminal to a freely programmable multi-function gateway with sensor interfaces for remote monitoring and remote maintenance.

A broad product portfolio of Quectel wireless modules allows integration of mobile network communications into customers' own application hardware.



### **M2M/IoT Industrial routers**

Our mobile-based router family makes it easy to connect your system or end devices in the field to mobile networks. VPN technologies ensure secure mobile network and Internet communications. Predictive maintenance, process monitoring or optimized production control can be carried out easily using these products.



### **M2M/IoT Industrial computers**

Controlling a system; continuous monitoring of measuring data and storage of measuring data, for example to provide proof of process-relevant criteria, requires large amounts of memory. MC Technologies wireless-enabled industrial computers combine high computing performance with a data communications solution.



### **Project support**

We have a portfolio of M2M solutions which allows us to provide support to our customers as a development partner, manufacturer, distributor and logistics partner. We can accompany your project from hard - and software development through implementation of the first pilot applications to on-going serial operation and thus provide ready-to-run, "end-to-end" solutions from one source.



#### Mobile network antennas

Whether 5G, LTE or WLAN, with a magnetic foot or wall-mounted – the high quality antennas in our Smart Collection series, used in combination with our adapter and connector products, ensure consistently optimum transmission and reception conditions.



### **Connectors**

We are a certified distributor for leading manufacturers such as binder, Molex and JST and can supply many types of connector from stock. This ensures guaranteed supplies, needs-based delivery quantities and the best terms and conditions.



### Cable assembly

MC Technologies is your personal manufacturer for customized cable assemblies which comply with the most current requirements and standards. Our advantages are many years of experience and individual personal advice from our competent in-house technical specialists.



#### **Automation**

As a Molex distributor we also stock automation products. The Brad® HarshIO module continuously supports communications down to the lowest field level for the networking of sensors and actuators.



## All benefits at a glance

Your requirement – Our solution.

## Do you have a mobile unit which you want to monitor or control?

Our well-balanced portfolio of mobile radio-based products will provide you with the perfect solution.

### Do you have several options for your application needs?

Our team of experts will be happy to discuss them with you. We offer services and products ranging from standard to customized solutions.

### Your preferred product is only a 90% match?

We can make it 100% by carrying out the required hard- and software modifications.

### Do you have special application requirements?

Our devices are freely programmable.

### Finding the right product or solution is a difficult challenge?

Contact us. Our experts can provide competent advice and fast, uncomplicated assistance. Also on your own premises if you wish.

## Setting up your device is a problem?

We supply pre-configured devices so that you can 'plug and play'.

## Your reception is a disaster?

Use our Smart Collection antennas and this will be a thing of the past. We have high-performance antennas for your special conditions. All supplied from one source.

### The cable is too long? You need a connector?

We can take care of it for you. As a distributor and cable assembler we can provide the exact solution you need.



# Quectel M2M-/IoT Wireless modules



## Quectel M2M/IoT Wireless modules

Our distribution partner Quectel offers a wide range of high-performance wireless modules. With an annual production volume of over 60 million units, the company is one of the world's leading manufacturers.

Quectel manufactures high performance mobile (from GSM to LTE), GNSS (GPS and GLONASS), JavaVM, Wi-Fi and Bluetooth modules to facilitate IoT connectivity in all markets and industries. Modules are available as LGA, LCC and mini PCIe models.

Quectel already offers serially produced NB-IoT modules and the first 5G-modules can also be delivered.

We will be pleased to provide you with Quectel modules with comparable or better performance characteristics for trial purposes and new integration. Evaluation modules (EVAL) and development boards are available from stock.

Further modules you can find on our website.









Product	RM500Q	BG95	EC21	EG25-G	
Description	5G module	LTE Cat M1 module	LTE Cat 1 module	LTE Cat 4 module	
Special features	IoT/eMBB optimised GNSS receivers	extremely low power consumption	energy saving also available as PCIe	energy saving high bandwidth	
Mobile radio standard					
5G	х	-	-	-	
4G LTE	х	х	х	х	
3G UMTS/HSPA+	Х	-	х	х	
2G GSM/GPRS	-	-	х	х	
NB-IoT	-	as variant	-	-	
Supply voltage	3.135V - 4.4V, 3.7V typ	2.6V - 4.8V, 3.3V typ	3,3V - 4,3V, 3,8V typ	3,3V - 4,3V, 3,8V typ	
Dimension	52 x 30 x 2,3mm	23.6 × 19.9 × 2.2mm	29 x 32 x 2.4mm	32 x 29 x 2.4mm	
Form factor	M.2	LGA	LCC	LGA	
Interfaces	Interfaces				
SIM	2x 1.8V/3.0V	1x 1.8V	1x 1.8V/3.0V	1x 1.8V/3.0V	
USB	2.0/3.0/3.1	2.0	2.0	2.0	
GPIO	х	х	-	-	
Others	PCI Gen3*2 Lane, RPCM, I2C, Reset_N, antenna	UART, antenna	Digital Audio, UART, NET- LIGHT, ADC, SDIO (for Wi- Fi and SD card), RESET, PWRKEY, antenna	UART, NETLIGHT, ADC, SDIO (for Wi-Fi and SD card), RESET, PWRKEY, antenna	
GNSS	GPS/GLONASS/BeiDou/ Galileo	optional	GPS/GLONASS/BeiDou/Galil eo/QZSS (optional)	GPS/GLONASS/BeiDou/ Galileo/QZSS (optional)	





# MC91/MC92 Wireless data terminals

The MC91 data terminal can be used for simple operations over 2G or NB-IoT in wide areas.

Using AT commands, for example, data can be sent via SMS, FTP(S), HTTP(S) or MQTT.

In addition, the MC91 terminal has a low power consumption and is therefore suitable for power-saving applications.

The MC92 data terminal is suitable for use over LTE with fallback to UMTS, EDGE and GSM.

Using classical AT commands, e.g. sending of short messages via SMS, HTTP(S), MQTT or SMTP can be accomplished.

In addition, the MC92 Gateway has the possibility to react to status information via inputs and outputs.



Product	MC91 Terminal	MC92 Terminal	
Description	4G LTE Cat M1/NB-IoT/EGPRS data terminal	4G LTE Cat 1 data terminal with UMTS/EDGE/GSM Fallback	
Special features	Integrated RTC (real time clock) Extensions possible via internal board-to-board connections Optional: GNSS/GPS	Integrated RTC (real time clock) Extensions possible via internal board-to-board connections Optional: GNSS/GPS	
Mobile radio standard			
4G LTE	х	х	
3G UMTS/HSPA+	-	х	
2G GSM/GPRS	х	х	
NB-IOT	х	-	
Supply voltage	8 to 30V DC	8 to 30V DC	
Dimensions	Approx. 44 x 105 x 84mm	Approx. 44 x 105 x 84mm	
Housing	Aluminium	Aluminium	
Interfaces			
Power supply	Plug-in screw-type terminal	Plug-in screw-type terminal	
Mini SIM card holder	Lockable	Lockable	
USB	Optional	Optional	
RS232	V.24/V.28 on sub-D	V.24/V.28 on sub-D	
RS485	Optional	Optional	
GPIO	2DIn + 2DOut (optional 4 DIn, or 4 DOut)	2DIn + 2DOut (optional 4 DIn, or 4 DOut)	
Antenna	SMA (female) 2. SMA (female) for GPS (optional)	SMA (female) 2. SMA (female) for GPS (optional)	





## Wireless data terminals

The wide variety of possible applications means that independence, data security and simple industrial standards-based tools are in demand.

Our wireless gateways (terminals) support event-, time- or request-controlled remote data transmission with or without prior partial evaluations, compressions or other processing.

We offer a range of standard terminals, some of which are JavaTM enabled or have GPS.

Plug-and-play capability means that they are immediately ready for use.

### Sample applications:

- Vending machine telemetry to allow electronic recording of sales transactions
- Control of passenger information displays
- Remote maintenance and remote control of machines
- Wireless remote control of machines and devices
- GPS position data transmission (tracking)
- Data loggers, for example for temperature and humidity monitoring in logistics applications









Product	MC55iW Terminal	MC89 HSPA Terminal	MC89 LTE Terminal	PLS8 Terminal
Description	2G data terminal with audio	3G Java™ data terminal	4G Java™data terminal	4G data terminal
Special features	Audio MUX-/RIL driver	Java™ programmable Hardware-Watchdog GPS/GPIOs (optional)	Java™ programmable Hardware-Watchdog LTE Cat 1	Supply voltage 8-60V GPS (optional)
Mobile radio standard				
4G LTE	-	-	х	х
3G UMTS/HSPA+	-	х	optional (Release 2)	х
2G GSM/GPRS	х	х	х	х
Supply voltage	8 to 30V DC	8 to 30V DC	8 to 30V DC	8 to 60V DC
Dimensions	65 x 74 x 33mm	65 x 74 x 33mm	65 x 74 x 33mm	65 x 74 x 33mm
Housing	Plastic, black	Plastic, black/transparent	Plastic, black/transparent	Plastic, black
Interfaces				
Power supply	RJ12	RJ12	RJ12	RJ12
Mini SIM card holder	1,8V and 3,0V	1,8V and 3,0V	1,8V and 3,0V	1,8V and 3,0V
RS232	DB9	DB9	DB9	DB9
USB	-	2.0HS up to 480Mbps	2.0HS up to 480Mbps	2.0HS up to 480Mbps
Programmable LEDs	-	6	6	-
Antenna	FME (male)	FME (male) Optional: SMA (female) for GPS	FME (male)	FME (male) Optional: SMA (female) for GPS





# MC100 Wireless data terminals and gateways

The entire MC100 product family is supplied with a Linux distribution. Freely programmable Linux includes drivers for all interfaces. Additional applications can be installed using a secure MC Technologies server.

All models can be used for direct data transmission via messaging systems such as SMS, email or Telegram.

The product portfolio also includes programmable Ethernet and mobile network-based gateways for remote maintenance and remote controlling applications. The top-selling MC100 GPIO can be used to replace over-dimensioned, cost-intensive control unit plus router systems.







Product	MC100 Terminal	MC100 Gateway	MC100 GPIO Gateway
Description	4G data terminal with OpenWrt (Linux) and Ethernet interface	4G gateway with OpenWrt (Linux) and Ethernet interface	4G gateway with OpenWrt (Linux) and GPIO interfaces
Special features	Optional with GPS	Optional with WLAN	Optional with WLAN
Mobile radio standard			
4G LTE	Х	х	х
3G UMTS/HSPA+	х	х	х
2G GSM/GPRS	Х	х	х
Supply voltage	8 to 30V DC	8 to 30V DC	8 to 30V DC
Dimensions	120 x 75 x 35mm	120 x 75 x 35mm	120 x 75 x 35mm
Housing	Plastic, dark blue	Plastic, dark blue	Plastic, dark blue
Interfaces			
Ethernet	10/100MBit/s	10/100MBit/s	10/100MBit/s
Digital inputs	-	2	Bis zu 10
Digital outputs	-	2	Bis zu 10
Analogue inputs	-	-	2
Analogue outputs	-	-	2
RS232 (DB9)	-	1	1
RS485	-	1	1
USB 2.0	-	1	1
CAN 2.0B	-	1	1
PMW	-	-	2
Antenna	2x SMA (female)	2x SMA (female)	2x SMA (female)
SIM	Mini-SIM, optional embedded SIM	Mini-SIM, optional embedded SIM	Mini-SIM, optional embedded SIM
SD card (internal)	Up to 64GB	Up to 64GB	Up to 64GB





# MC100 Sensor gateways / wireless M-Bus gateway

The MC100 SensorBox and the SensT2 are fast and easy ways to communicate data from spread-out sensors and actuators in the field to back-end systems.

Temperature, humidity, pressure, flow or gas can be measured using corresponding sensors.

Convenient data transmission via MQTT, OPC UA and FTP is just one example of practical applications.



In addition to this, these products have sufficient reserves of computing power and memory to allow for local processing of smaller tasks.

The MC100 wM Bus gateway is equipped with a wireless M-Bus interface and selective filters and amplifiers.





Product	MC100 SensT2	MC100 SensorBox	MC100 wM-Bus Gateway
Description	4G Gateway with OpenWrt (Linux) and sensor interfaces	4G Gateway with OpenWrt (Linux) and many sensor interfaces	4G Gateway with wireless M-Bus and Ethernet interface
Special features	optional with WLAN	Integrated power supply, 2 slots for expansion cards	Optional for 169, 433, 866 MHz
Mobile radio standard			
4G LTE	х	х	х
3G UMTS/HSPA+	х	х	х
2G GSM/GPRS	х	х	х
Supply voltage	8 to 30V DC	8 to 30V DC	8 to 30V DC
Dimensions	120 x 75 x 35mm	250 x 180 x 80mm	120 x 75 x 35mm
Housing	Plastic, dark blue	Plastic, light grey	Plastic, dark blue
Interfaces			
Ethernet	10/100MBit/s	10/100MBit/s	10/100MBit/s
Digital inputs	Up to 10	Up to 6	2
Digital outputs	Up to 10	Up to 4	2
Analogue inputs	Up to 4	2	-
Analogue outputs	2	1	-
RS232 (DB9)	1	1	1
RS485	2	1	-
USB 2.0	1	1	1
CAN 2.0B	1	1	1
PT100/PT1000	4	8 (4x2) - optional 16 (8x2)	-
1-Wire	1	1	-
Input relay	-	220V	-
Output relay	-	220V SPDT	-
Antenna	2x SMA (female)	2x SMA (female)	3x SMA (female)





# Wireless universal sensors with Sigfox or wireless M-Bus

Send and receive data wirelessly in the building: Our wireless sensors make it possible.

Wireless measurements of temperature, humidity, pressure, flow or gas are carried out via appropriate sensors.

Convenient data transfer via MQTT, OPC UA and FTP are just one practical application example.

The sensors are an optimal addition to our MC100 devices.









Product	Laser-Sensor	Wireless Sigfox Sensor	Wireless M-Bus Sensor	WiSe-100 Sensor
Description	Wireless Sigfox, laser-based particle sensor	Wireless Sigfox sensor with analogue and digital inputs	Wireless M-Bus (OMS) Dual NTC temperature sensor	Wireless M-Bus (OMS) PT100 temperature sensor
Sensor type	Laser PM 2.5 Particle size: ≤2,5µm	Various external, e.g. pressure, flow, current transformer, position	2x NTC	PT100
Sensor measuring	Temperature and humidity	Various external, worldwide industrial standards	Temperature	Temperature
Sensor location	Intern	Extern	Extern	Extern
Analogue inputs	-	4x 0-10V, alternativ 4x 4-20mA	-	PT100, 2-wire or 4-wire connection
Digital inputs	1x UART for LoRa piggy- back	4x Dry Contact	-	-
Digital outputs	-	3x OC	-	-
Dimensions	150 x 70 x 40mm	70 x 86 x 58mm	71 x 71 x 27mm	70 x 86 x 58mm
Housing	Impact resistant ABS housing	Standard DIN rail (4M)	ABS white	Standard DIN rail (4M)
Power supply	Extern 5V DC	External 5V DC Option: 24V DC	Battery	Battery
Emergency power supply	-	Lithium Battery 3,6V	-	-
Temperature range	-20°C to +50°C	-20°C to +50°C	-40°C to +85°C	-40°C to +60°C
Transmission cycle	Min. 10min.	Min. 10min.	10/30s, 1/2/5/10min	10/30s, 1/2/5/10min
Standard Communication	Sigfox	Sigfox	Wireless M-Bus	Wireless M-Bus
Operating frequency ISM-Band	868 MHz	868 MHz	868 MHz	868 MHz
Typical applications	Environmental monitoring, heating, ventilation, air conditioning (HVAC)	Industrial control, remote monitoring of sensor net- works, environmental monitoring, mobile sensor networks, remote alarm	climate control, office automation, food proces- sing, medical instruments, transport, museums, detection of legionella	Temperature control, industrial control, office automation, central heating control, research & development e.g. cryotechnology





## Mobile and LAN routers

The MC Technologies router family is characterized by a modular concept and a wide range of products based on the same hard-and software platform.

Network-enabled industrial computers can be used for remote maintenance and mobile deployment of machines. When controlling and monitoring machines (e.g. construction machines, power plants or wind and solar farms) it is important to have continuous control over the machines' operating status, both remotely and at changing locations. Thanks to its high network coverage, a mobile network-based wireless solution is ideal for remote monitoring.

Remote monitoring must also provide an option for visual monitoring of a construction site or factory premises.

The routers can also be used to establish secure, reliable network connections to machines via a mobile network (2G, 3G, 4G, 5G) or the Internet (DSL/LAN) – just as if the machines were in the operator's local network.

The routers also have integrated mechanisms (Watchdog) to facilitate independent securing of communications connections.



Product	MC LR Router/LRS Server	MC MRL/MRLQ Router	MC PMRL Router
Description	LAN/WAN industrial router/OpenVPN server with Linux operating system	4G industrial router with Linux operating system	OpenWrt (Linux) programmable 4G industrial router
Special features	Linux OpenVPN server (MC LRS)	Optional also as 4-port switch, optional with GPS	OpenWrt (Linux) programmable, further analogue/digital GPIOs, various VPN protocols, WLAN access point
Mobile radio standard			
2G GSM/GPRS	-	х	х
3G UMTS/HSPA+	-	х	х
4G LTE	-	х	х
WAN	Х	-	х
Power supply	8 to 30V DC	8 to 30V DC	10 to 55V DC
Dimensions	44 x 105 x 84mm	44 x 105 x 84mm	44 x 105 x 124mm
Housing	Aluminium	Aluminium	Aluminium
Interfaces			
Ethernet 10/100	1 LAN + 1 WAN	2-Port-Switch	3-Port-Switch/VLAN
WLAN	x (MC LRS)	-	х
USB	х	х	х
RS232	Optional (MC LR)	Optional	х
RS485	Optional (MC LR)	Optional	х
GPIOs (1x IN / 1x OUT)	х	х	х
GPS	-	Optional	Optional
SIM card	-	2	1
Antenna	-	RX Diversity/MIMO	RX Diversity/MIMO



# M2M/IoT Industrial computers



## **Industrial computers**

Controlling a system; continuous monitoring of measuring data and storage of measuring data, for example to provide proof of process-relevant criteria, requires large amounts of memory.

Our modular concept allows you to select working memories and hard drives in line with your requirements as well as providing optional extras such as a mobile network connection to facilitate remote maintenance, remote monitoring for system control ("soft SPS"), data logging or streaming of image data for advertising and information displays or in difficult-to-access locations.

Versatile, robust industrial computers and embedded computers with LAN, 3G UMTS/HSPA or 4G LTE for demanding M2M applications.

Fanless and including Intel Atom or RISC-based processors for rail mounting.

Additional computer models (e.g. with railway certification or HDMI interface) or with other technical specifications available on request.





Product	MC-IC3000	MC-IC3040	MC-RC6040
Description	Robust, fanless LAN industrial PC with Intel® Atom™ processor	Robust, fanless 4G industrial PC with Intel® Atom™ processor	Robust, fanless 4G industrial PC with RISC-based processor
Special features	EOS Support Windows® 7/8, Linux/Ubuntu support package, Integrated RTC (real time clock)	EOS Support Windows® 7/8, GPS(optional), Integrated RTC (real time clock), MIMO antenna connectors	OS development: Ubuntu, ready- to-use embedded Linux operating system, MIMO antenna connec- tors
Mobile radio standard	-	4G (LTE)	4G (LTE)
СРИ	Intel® Atom™ Processor 1.46GHz	Intel® Atom™ Processor 1.46GHz	iMX-287, ARM9 16-bit RISC CPU
Memory	DDR3L-1066 MHz	DDR3L-1066 MHz	1x 128MB DDR2 SDRAM
Power supply	12 to 24V DC	12 to 24V DC	12 to 48V DC
Dimensions	48 x 155 x 110mm	48 x 155 x 110mm	55 x 155 x 110mm
Housing	Aluminium and steel, IP40	Aluminium and steel, IP40	Aluminium and steel, IP40
Interfaces			
Serial	4x RS-232/422/485 (COM 1-4)	4x RS-232/422/485 (COM 1-4)	4x RS-232/422/485 (COM 1-4)
USB 2.0	2	2	1
LAN	2x 10/100/1000Mbps Ethernet	2x 10/100/1000Mbps Ethernet	2x 10/100Mbps Ethernet
VGA	1	1	-
CAN 2.0B	-	-	2
Digital I/O	-	-	1x DIO (4-IN/4-OUT)
SIM card	-	1	1
Antenna	-	2x SMA (female)	2x SMA (female)

Additional computer models at www.mc-technologies.net





## **Services**

Remote monitoring, control or regulation of industrial systems from waste containers to construction cranes; from bio-gas plants to office machines or from wind turbines and water pumps to metal cutting machines are state-of-the-art applications.

As a full-service service provider we have a portfolio of M2M solutions that allows us to offer our customers support throughout their projects. We can accompany processes from hard and software development through implementation of the first pilot applications to on-going operation. Our customers can rely on ready-to-run, "end-to-end" solutions from one source.

The use of mobile network technology for remote monitoring and remote control opens up options and benefits which could not be realised using other means.

Cloud computing, for example using Microsoft Azure, makes it possible to outsource resources. A further benefit is increased agility – new challenges can be met at any time. Anywhere in the world.

For over 10 years now our customers have been able to benefit from our know-how, gained from numerous practically realized and implemented projects.



We also offer additional service concepts for our products and solutions, such as designing and developing customized optimum solutions for your application. Thanks to our many years of experience we can provide our customers with competent technical advice on product selection and design-ins.

In addition to this, we can assist with fast, professional implementation of all accompanying commercial and logistics processes.

### Our expertise includes:

#### **M2M** and IoT communications

- Analysis of existing M2M solutions
- Planning of any required embedded hardware
- Planning of mobile network infrastructures
- Remote control and remote maintenance
- Vertical and horizontal integration
- Networking of mobile devices
- Connection of decentralized systems
- Planning of data base structures
- Modelling of business processes
- Security concepts
- Embedded Java
- Embedded Linux

#### Server programming

- Infrastructure-related services
- Assistance with short development cycles
- Infrastructure management
- Cloud computing (Microsoft Azure)
- Industrial automation









## Mobile network antennas – Always have the best reception

Our Smart Collection antennas include a wide range of customizable mobile/multiband antennas (ISM, GSM, MIMO, LTE, 5G and many others) as well as customized cable assemblies.

Some antennas are also suitable for special applications such as buses, trains, navy or smart metering.

In addition to this we can also assemble RF cables for you.

Selecting the right cables with the right RF connectors for your application is an important factor in this regard.

We will be happy to advise you on the optimum solution.















## Cable assembly

# High quality cable assembly solutions customized to meet your requirements – reliably, quickly and cost-effectively.

Today's long delivery times mean that material procurement is becoming an increasingly important issue. We source our products worldwide, working hand-in-hand with numerous suppliers and as distributors for diverse prestigious manufacturers, allowing us to draw on a large in-house stock inventory.

- We provide advice from the idea through the design-in to serial manufacturing.
- We assemble single strands, simple connection cables or complex cable harnesses from one unit to large production runs
- We crimp, solder, assemble, cast and label as required.
- We can review your cable assemblies, either together with you or to verify compliance with standard practices and regulations.
- We offer consignment warehousing, framework contracts, KANBAN and customized packaging.

### References:



Internal connection cable for a high-resolution HD camera



Binder Connector Snap-in distributor, encapsulated according to protection class IP67, for awning control



FCT IP67 D-Sub connection cable for industrial drilling machines



Data transmission cable for the connection of HarshIO Switches







### **Connectors**

MC Technologies GmbH is your personal distributor for industrial connectors from top manufacturers.

As a medium-sized, innovative company we have viewed ourselves as the link between manufacturers and customers for many decades now. Our advantages are many years of experience and individual personal advice from our competent in-house technical specialists.

We provide advice from the idea through the design-in to serial manufacturing, warehousing and special solutions to alternative solutions.

In addition to this we also assemble customized cables and connectors as per your requirements.



- Miniature, Subminiature
- Power
- Medical applications
- Automation technology
- M5, M8, M12, M16, M23
- Actuators, Sensors
- binder molex F
  - Board-to-Board
  - Wire-to-Board
  - Wire-to-Wire
  - RJ45, RJ11
  - Power
  - Automation technology



- D-Sub
- D-Sub Mixed Layout
- D-Sub High Density
- Hoods



- Wire-to-Board Crimp, IDC
- Wire-to-Wire
- Waterproof
- FFC / FPC
- USB

#### Further manufacturers:

Bernstein, Conec, Lemo, MPE Garry, Neutrik, ODU, WAGO

## **Automation**

### MOLEX Brad® Industrial Automation Products

MOLEX Brad® connectivity products provide one convenient source for specifying numerous passive interconnect and industrial communications requirements for industrial applications. Standardize with Brad system solutions to simplify design, installation and maintenance processes.

#### **IP67-rate HarshIO modules**

IP67-rated HarshIO modules provide a guick, reliable solution for connecting industrial controllers to I/O devices in harsh environments where liquids, dust or vibration may be present.



- Connection of industrial control elements to sensors/actuators
- Designed for direct machine mount applications
- IP67-rated housing for harsh environments

Robust, reliable IP67-rated connectors for sensors and actuators via IO-Link, Ethernet/IP and PROFINET Brad®. HarshIO Ethernet I/O modules with QuickConnect and Fast-Start-Up technology provide reliable solutions for connecting industrial controllers to I/O devices in harsh environments.

#### **Industrial Ethernet switches**

Reliable, robust managed and unmanaged IP67-rated Ethernet switches. Ethernet 10/100/1000 available for a wide range of control and monitoring functions in complex industrial network applications.



- NEMA 6 and IP67 rated
- 30mm and 60mm width formats; 5- and 8-port versions
- Ultra-Lock® M12 connection system
- Operating temperature range: -40°C to +75°C



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## Company profile

# We are a leading European provider of innovative solutions for:

- Machine-to-machine (M2M) communication (hardware and complete solutions)
- Remote maintenance and remote control

# Thanks to our many years of experience we can offer:

- A wide, competitively priced product range based on German quality standards
- Design and development of the optimum solution specifically tailored to your application
- Competent technical advice for product selection and design-in
- Quick, professional implementation of all accompanying commercial and logistical processes
- Comprehensive service concepts for our products and solutions

### We cover a wide range of products:

- GSM/GPRS/UMTS/HSPA+/LTE/GPS modules, terminals, routers and industrial computers
- Customer-specific cable assemblies
- Connectors for industry
- Automation technology
- Software Development









