# **EmpirBus**

#### MCU-11 Master Control Unit

- NMEA2000 Master Control Unit
- PC Interface Via USB Mini Socket
- USB Memory Stick Interface Port
- Ethernet Port
- Quad Channel Bi-Directional Remote Control Unit
- Integrated GSM Module
- Port for remote GPS receiver connection
- Integrated audible buzzer
- IP65 Protection
- Secondary PSU Connection for redundancy and security

## **Description**

The NXT Master Control Unit is an essential component of a NXT installation and provides multiple functions. It is the central processor that drives the system, provides the computing power, intelligence and decision making. In addition there are various interfaces for connection to external devices and a remote control port.

The master Control Unit (MCU) is a NMEA2000 device and talks to all of the other system components via the NMEA2000 network. The MCU both stores and executes the configuration files for the installation holding data for every DC Module and Membrane Panel present. Should any Module or Membrane need to be replaced it is the MCU that distributes the specific data to the replacement once the base address of the new component has been entered.

Within the MCU there is a large amount of onboard memory storage and this is addressed either via the mini USB port connected to a PC or directly from a memory stick. It is therefore possible to update or load a new configuration directly from a memory stick without the necessity of connecting a PC.



The Ethernet interface allows the system to be monitored or controlled remotely, either over the internet or locally via a WiFi connection, for example a smart phone controlling lighting or displaying tank levels. The GSM interface allows similar interaction with the system either utilising SMS messaging services or data network. Finally there is a port to accept a GPS receiver which can be used within the system as say an anchor alarm or tracking device.

All interfaces are Galvanically isolated to ensure integrity with other system devices and there is a secondary power supply connection for redundancy and security should the NMEA power be dropped.

A three digit display allows some parameters such as the base address to be displayed and the touch buttons allow new settings to be entered.



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## **Connection example NMEA2000**



Dimensions

## **Specifications**

Communication:	CAN-bus NMEA 2000	
Power supply:	Power consumption max/average 300mA/0,25mA Supply voltage 9–32VDC	
<b>Connector:</b> NMEA 2000 Power supply USB Slave USB Host Ethernet Sim Card Antenna	Micro 5pin M12 Male Micro 8pin M12 Male Mini USB USB A RJ45 Sim Card Holder SMA Female	
Ambient temp.:	-20 to +70 degrees Celsius	
Enclosure:	Ingress Protection IP65	
Dimensions:	173 x 89 x 32,5 mm	
Regulation comp.:	ABYC, RoHS	
Weight:	0,2 kg	(mm) drawing is not to scale

## **Articles**

2051011 MCU-11 Master with CAN and USB slave interface

2051040 MCU-11 Master with CAN, USB slave and GSM interface

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Trigentic AB Kasenabbevägen 65 SE-451 50 Uddevalla Sweden Support Phone: +46 522-44 38 88 E-mail: support@empirbus.com Web: www.empirbus.com

