

Trigentic AB

EmpirBus NXT MCU-11 User manual

Covering models MCU-11/01, MCU-11/11, MCU-11/40 and MCU-11/61

1. Introduction

The MCU is a product from the EmpirBus NXT product family.

This document contains basic specifications and installation instructions. This and other documents are available at www.empirbus.com.

2. Scope of Delivery

The MCU-11/01 is delivered with a 2m IP65 USB A to USB B mini cable. Other MCU models are not shipped a USB cable.

3. Model Range

Both the unit and the box are marked with model number.

| Model | MCU 11/01 | MCU-11/11 | MCU-11/40 | MCU-11/61 |
|----------------------|-----------|-----------|-----------|-----------|
| USB PC interface | X | X | X | X |
| Master functionality | | X | X | X |
| Integrated GSM | | | X | |
| J1939 receiver | | | | X |

Table 3.1: Model range

4. Installation

4.1 Mounting

The MCU should be mounted on a flat vertical surface with four screws (not included), with the orientation as shown in figure 4.1.

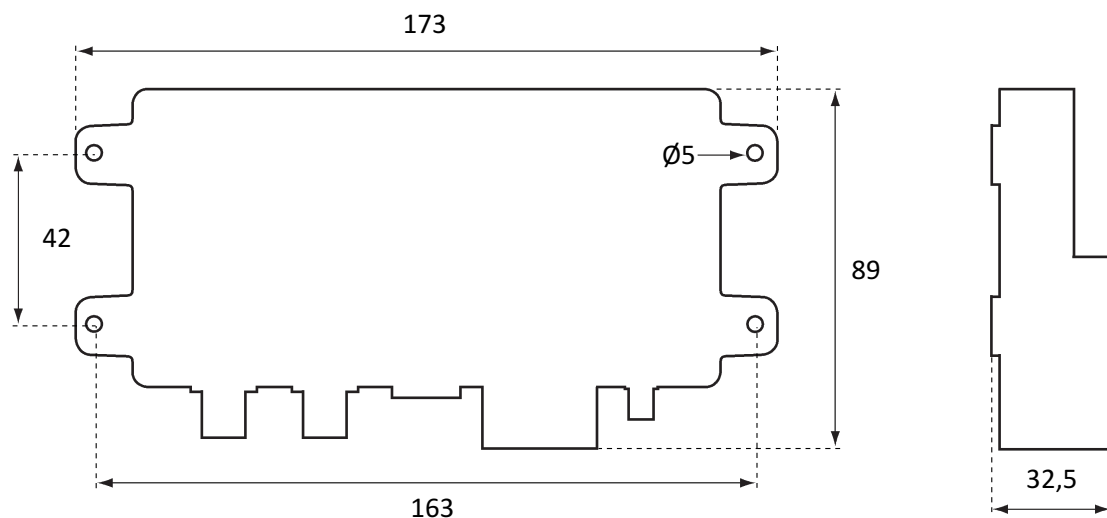


Figure 4.1: Dimensions

[mm] (Drawing is not to scale.)

4.2 Connectors

The bus connector is an NMEA 2000 compatible male Micro-C 5 pin connector. It is not recommended to connect a T-connector directly to the unit, a drop cable should be between the main bus and the unit. The USB B mini connector is only designed to fit with an original MCU cable. The MCU-10/40 is equipped with a female SMA connector for GSM antenna connection and a SIM card receptor that accepts mini-SIM. The SIM card is mounted behind the yellow cap. See figure 4.2.



Figure 4.2: MCU

Product specifications

See table 3.1 for model specification and hardware support

| | |
|--|--|
| Communication <i>CAN-bus</i> <i>GSM</i> | NMEA 2000, J1939 Quad-band 850/900/1700/1800MHz |
| Power supply Max/average Supply voltage | 300mA/0,25mA 9-32VDC (Note: Power feed is through the NMEA 2000 bus) |
| Connectors <i>NMEA 2000</i> <i>J1939</i> <i>Antenna</i> <i>SIM card</i> <i>USB slave interface</i> | Micro 5pin M12 Male Micro 12pin M12 Male SMA female mini-SIM (15 x 25 mm) USB B mini |
| Environment <i>Ambient temperature</i> <i>Enclosure</i> | -20 to +70 degrees Celsius Ingress Protection IP65, Polycarbonate ¹ |
| Physical data <i>Size</i> <i>Weight</i> | 173 x 89 x 32.5 mm 0,2 kg |

¹ Exposure to solvents and/or water above 60°C may cause cracking on polycarbonate.

Notes:

DECLARATION OF CONFIRMITY

We, manufacturer, Trigent AB, Uddevalla, Sweden, declare that the articles:
2010101, 2010102, 2010103, 2010104, 2010105, 2010403, 2010505, 2020106, 2020107, 2020108,
2020109, 2020110, 2020408, 2020510, 2041311, 2041351, 2041314, 2041354, 2041313, 2041353
2061001, 2051001, 2051011 and 2051040,

are in conformity with the EMC Directive,
Low Voltage Directive 2006/95/EC, EN 60950
EMC Directive 2004/108/EC



CE MARK FIRST AFFIXED DATE
18th April 2013

We also declare that the articles:
2010101, 2010102, 2010103, 2010104, 2010105, 2010403, 2010505, 2020106, 2020107, 2020108,
2020109, 2020110, 2020408, 2020510, 2041311, 2041351, 2041314, 2041354, 2041313, 2041353
2061001, 2051001, 2051011 and 2051040,

comply with
FCC 47 CFR Part 15, Subpart B, Class A.



FCC MARK FIRST AFFIXED DATE
17th June 2013

SIGNS ON BEHALF OF Trigent AB
Name: Henrik Niklasson
Position: Managing Director
Location and date: Uddevalla, Sweden, 10th of July 2013

Signature:

Henrik Niklasson

RoHS CERTIFICATE OF CONFORMANCE

We, manufacturer, Trigent AB, Uddevalla, Sweden, declare that the articles:

2010101, 2010102, 2010103, 2010104, 2010105, 2010403, 2010505, 2020106, 2020107, 2020108, 2020109, 2020110, 2020408, 2020510, 2041311, 2041351, 2041314, 2041354, 2041313, 2041353 2061001, 2051001, 2051011 and 2051040,

are in compliance with Directive 2002/95/EC on the restriction of the use of certain hazardous substances in mechanics, electrical and electronic equipment (RoHS Directives).

SIGNS ON BEHALF OF Trigent AB
Name: Henrik Niklasson
Position: Managing Director
Location and date: Uddevalla, Sweden, 10th of July 2013

Signature: Henrik Niklasson



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