

## **ZU37BB/-CB/-CO**

### Connector boards



### Get connected. With standard.

The Euro-card sized connector boards ZU37CB, ZU37CB, and ZU37BB are the solution for comfortably connecting sensors and voltage signals to a PC measurement system. The integrated plug connector technologies are widely used in industry and connection technology.

### BNC, banana, terminals. You have the choice.

The three ZU37 versions have different connectors: the basic model with 4-pole terminal connectors (ZU37CO), the version with additional 4mm connectors for banana plugs (ZU37CB), or the connector panel combining BNC and 4mm-banana (ZU37BB) sockets. You will find the type corresponding to your needs!

### 16 analog inputs. 4 extra lines.

The ZU37BB/-CB/-CO features 16 connectors for analog inputs. Additional lines (e.g. analog outputs) can be attached to 4 further plug connectors.

### Sensors well supplied.

Providing a supply voltage allows for the excitation of sensors connected to the 16 analog input terminals of the ZU37BB or ZU37CB. The supply level (low-voltage, <60V) can be chosen arbitrarily according to the requirements of the sensors.

### Connection to the measurement system.

All connections on the board are directly led through to a D-Sub37 male to be connected to the input lines of a measuring amplifier or data acquisition system. The pin assignment corresponds to the default assignment of DAQ hardware from bmcm allowing a comfortable 1:1 connection.

### DIN rail mounting.

The connector boards come with a DIN rail carrier with bracket to be easily mounted on a standard DIN rail as commonly used in electrical installation.

## 1 Overview

	ZU37BB	ZU37CB	ZU37CO
<i>Signal connection</i>	<ul style="list-style-type: none"> <li>4mm-jacks for banana plugs</li> <li>BNC sockets</li> </ul>	<ul style="list-style-type: none"> <li>4mm-jacks for banana plugs</li> <li>4-pole connectors for pluggable screw terminal blocks</li> </ul>	<ul style="list-style-type: none"> <li>4-pole connectors for pluggable screw terminal blocks</li> </ul>
<i>Max. number of channels</i>	16 + 4	16 + 4	16 + 4
<i>Connection to the amplifier / DAQ system</i>	D-Sub37 male	D-Sub37 male	D-Sub37 male
<i>Other features</i>	-	sensor supply at 16 channels	sensor supply at 16 channels
<i>Accessories (optional)</i>	-	ZU4ST: pluggable screw terminal blocks (packaging unit = 8)	ZU4ST: pluggable screw terminal blocks (packaging unit = 8)

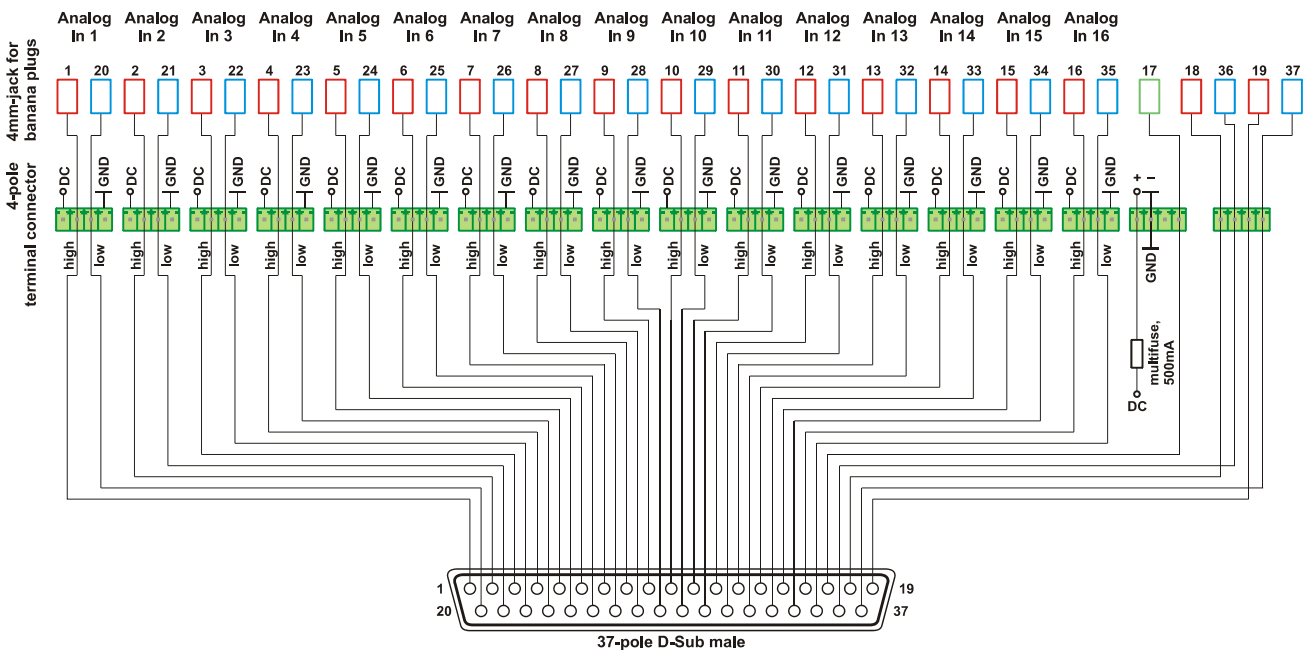
## 2 Pin assignment ZU37CB

Pins 1-16 and 20-35 of the 37-pole D-Sub male of the ZU37CB are lead out at 16 terminal connectors as well as at 32 jacks for 4mm banana plugs. The latter are arranged in pairs, the red socket is used for the *high*-connection, the blue one for the *low*-connection. This assignment corresponds to the default configuration for the 16 analog inputs of DAQ systems from bmc.



The connectors on the board have been marked with the corresponding pin numbers of the D-Sub37 male for better orientation.

The remaining pins (17-19, 36, 37) are available at the other 4mm-jacks or at the two terminal connectors top left (view on top of the board, D-Sub37 male on the left).



**Always use only one connector type per channel, as double connecting may damage the board.**

### 2.1 Supply voltage

A supply voltage can be connected to the top left terminal connector (view on top of the board, D-Sub37 on the left), which is available at the terminal connectors "Analog In 1-16" for sensor supply.

### 2.2 Multifuse

The sensor supply is protected by a fuse (multifuse). In case of overload (current >500mA or supply voltage >60V) it is sufficient to interrupt the power supply. After a few minutes, the multifuse will be regenerated.

### 2.3 Accessories

To comfortably connect signals to the terminals, 4-pole screw-type terminal blocks are available in packages of 8 under the order number *ZU4ST*.

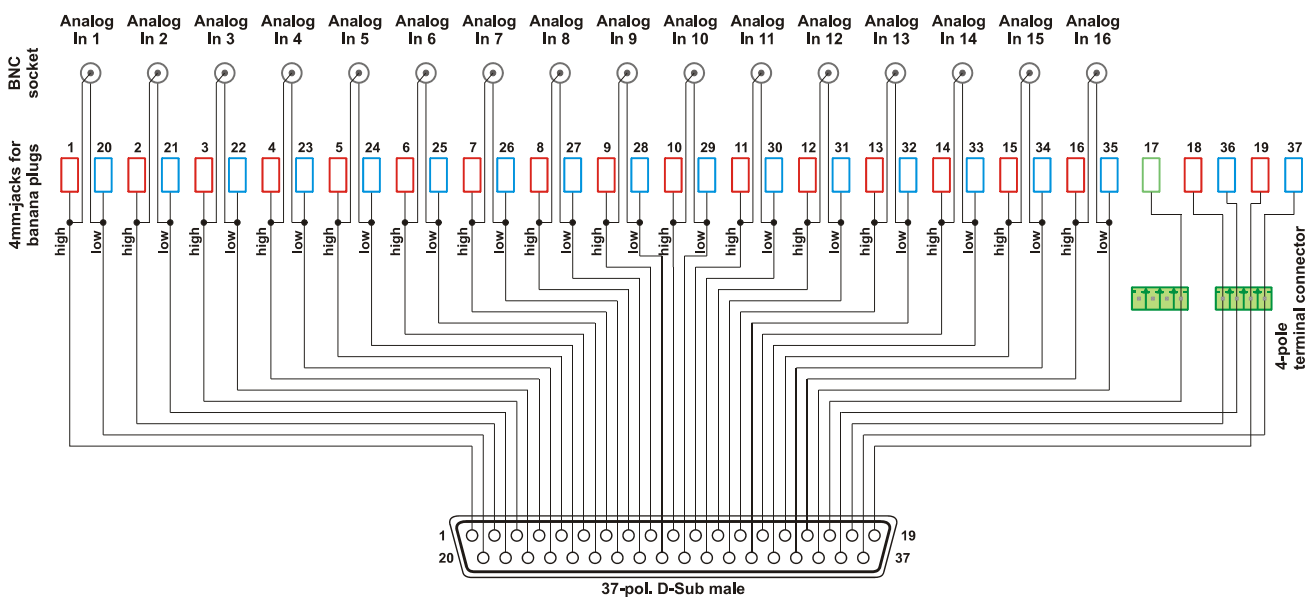
### 3 Pin assignment ZU37BB

Pins 1-16 and 20-35 of the 37-pole D-Sub male of the ZU37BB are lead out at 16 BNC sockets as well as at 32 jacks for 4mm banana plugs. The latter are arranged in pairs, the red socket is used for the *high*-connection, the blue one for the *low*-connection. This assignment corresponds to the default configuration for the 16 analog inputs of DAQ systems from bmc.



The connectors on the board have been marked with the corresponding pin numbers of the D-Sub37 male for better orientation.

The remaining pins (17-19, 36, 37) are exclusively available at the other 4mm-jacks or at the two terminal connectors top left (view on top of the board, D-Sub37 male on the left).



**Always use only one connector type per channel, as double connecting may damage the board.**

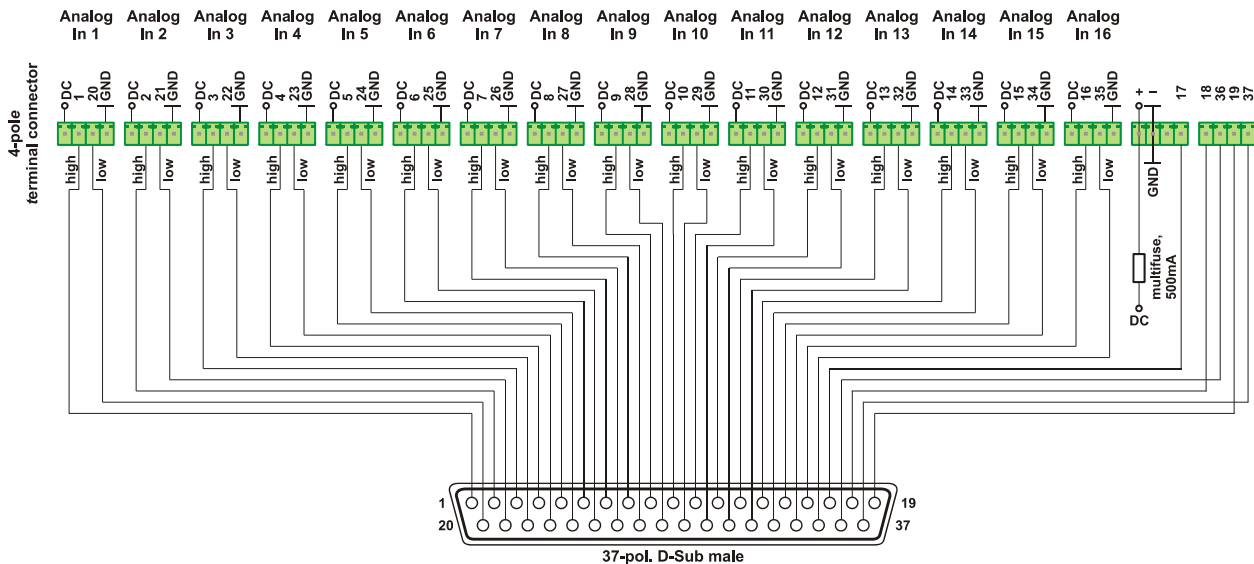
### 4 Pin assignment ZU37CO

Pins 1-16 and 20-35 of the 37-pole D-Sub male of the ZU37CO are lead out at 16 terminal connectors. This assignment corresponds to the default configuration for the 16 analog inputs of DAQ systems from bmc.

The connectors on the board have been marked with the corresponding pin numbers of the D-Sub37 male for better orientation.

The remaining pins (17-19, 36, 37) are available at the two terminal connectors top left (view on top of the board, D-Sub37 male on the left)





### 4.1 Supply voltage

A supply voltage can be connected to the top left terminal connector (view on top of the board, D-Sub37 on the left), which is available at the terminal connectors "Analog In 1-16" for sensor supply.

### 4.2 Multifuse

The sensor supply is protected by a fuse (multifuse). In case of overload (current >500mA or supply voltage >60V) it is sufficient to interrupt the power supply. After a few minutes, the multifuse will be regenerated.

### 4.3 Accessories

To comfortably connect signals to the terminals, 4-pole screw-type terminal blocks are available in packages of 8 under the order number *ZU4ST*.

## 5 Important notes for using the ZU37BB/-CB/-CO

- The ZU37BB/-CB/-CO are only suitable for extra-low voltages – please observe the relevant regulations!
- The ground of the ZU37BB/ZU37CB/ZU37CO is connected to the chassis of the PC, which is usually also connected to ground. Be sure to avoid ground loops since they will cause measuring errors!
- All accessible pins are electrostatic sensitive devices. Additional power supply is not necessary.
- Only use non-solvent detergents for cleaning. The product is designed to be maintenance-free.
- The board must not be used for safety-relevant tasks. With the use of the product, the customer becomes manufacturer by law and is therefore fully responsible for the proper installation and use of the product. In the case of improper use and/or unauthorized interference, our warranty ceases and any warranty claim is excluded.



Do not dispose of the product in the domestic waste or at any waste collection places. It has to be either duly disposed according to the WEEE directive or can be returned to bmcM at your own expense.

## 6 Technical data (typical at 20°C, after 5min.)

Connections:

Sensor supply (ZU37CB/ZU37CO):

Temperature range // Relative humidity:

CE standards:

ElektroG // ear registration:

Dimensions // Max. potentials:

Delivery:

Available accessory:

Guarantee:

D-Sub37 male connector, 2x 4-pole terminal connectors; additionally: ZU37BB: 16x BNC female, 37x 4mm banana jacks; ZU37CO: 16x 4-pole terminal connectors; ZU37CB: 37x 4mm banana jacks, 16x 4-pole terminal connectors
at 4-pole terminal connector, available for Analog In 1-16, protected with multifuse (500mA)
-25°C..70°C // 0-90% (not condensing)
EN61000-6-1, EN61000-6-3, EN61010-1; for decl. of conformity (PDF) visit <a href="http://www.bmcM.de">www.bmcM.de</a>
RoHS and WEEE compliant // WEEE Reg.-No. DE75472248
167mm x 105mm x app. 35mm // <b>60V DC acc. to VDE</b> , max. 1kV ESD on open lines
board in DIN rail carrier, DIN rail attachment, small ribbon bases, description
connecting cable ZUKA37SB, 4-pole screw-type terminal blocks ZU4ST (package of 8)
2 years from date of purchase at bmcM, claims for damages resulting from improper use excluded

Manufacturer: BMC Messsysteme GmbH. Subject to change due to technical improvements. Errors and printing errors excepted. Rev. 4.0 04/05/2011