

ZU37BB/ZU37CB/ZU37CO

Measuring card adapter for BNC or banana plugs or connecting terminals

Features

- connectors for 16x AIn and 2x AOut
- 37-pole Sub-D plug
- ZU37BB: 18 BNC-sockets/
37 sockets for 4mm-banana plugs
- ZU37CB: 18 connecting terminals/
37 sockets for 4mm-banana plugs
- ZU37CO: 18 connecting terminals

Applications

- adapter for BNC or banana plugs or connecting terminals
- for laboratory applications
- sensor supply (ZU37CB/ZU37CO)



ZU37BB



The adapter **ZU37BB/ZU37CB/ZU37CO** is a

... euro-sized connector board ...

in different versions.

The lines of the 37-pole Sub-D plug are directly lead out to the connectors -

... connecting terminals, BNC sockets or 4mm-sockets ...

for banana plugs - on the board.

To connect the adapter to the analog bmc measuring hardware use a 37-pole extension cable (ZU-KA37SB).

Depending on the model used

... 16 analog inputs and 2 analog outputs ...

(with PCI(e)-BASE and MDA12-4 or MDA16-4i: max. 4) can be reached at the various connectors of the **ZU37BB/ZU37CB/ZU37CO** now.

The **ZU37BB** and the **ZU37CB** in particular provide two different connector types (**ZU37BB**: BNC + banana sockets; **ZU37CB**: terminals + banana sockets).

... Differential connection ...

of signals, of course, is possible.

All in- and outputs are labeled on the board.

At the connecting terminals of the **ZU37CB** and the **ZU37CO** 5V are available for

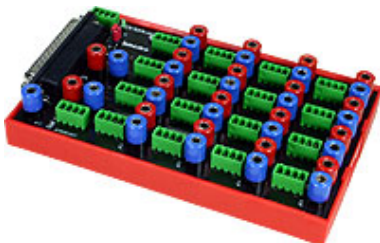
... sensor supply... .

The panel of the **ZU37BB/ZU37CB/ZU37CO** is integrated into a carrier for

... DIN rail mounting... .

The DIN rail attachment and the small ribbon bases are included with delivery.

ZU37CB



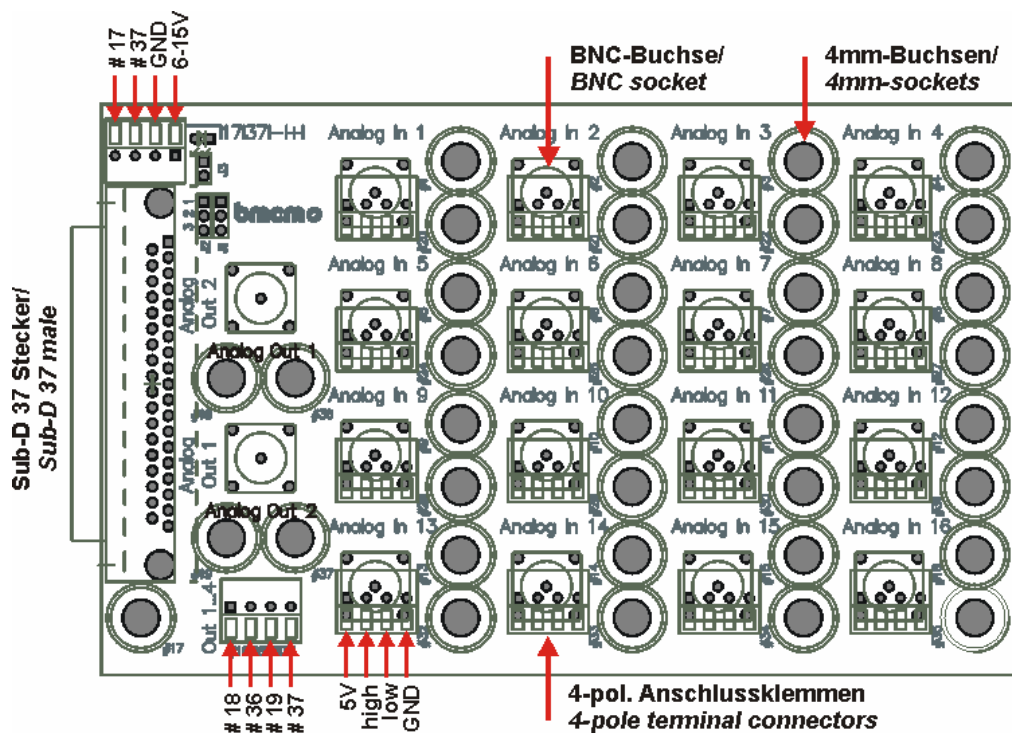
ZU37CO



Overview

	ZU37BB	ZU37CB	ZU37CO
connector type	BNC plugs banana plugs	banana plugs connecting terminals	connecting terminals
channels	16x AIn, 2x AOut (PCI-BASE + MDA12-4: max. 4x AOut)	16x AIn, 2x AOut (PCI-BASE + MDA12-4: max. 4x AOut)	16x AIn, 2x AOut (PCI-BASE + MDA12-4: max. 4x AOut)
V_{cc}	-	5V	5V
power supply	-	6-15V	6-15V
compatible hardware	iM3250(T), iM-AD25(a), meM-AD/-ADDA/-ADf/-ADfo/-LOG, PCI-BASE50/300/1000, P1000NV, PC20TR, PC16TR, backplane BP16		

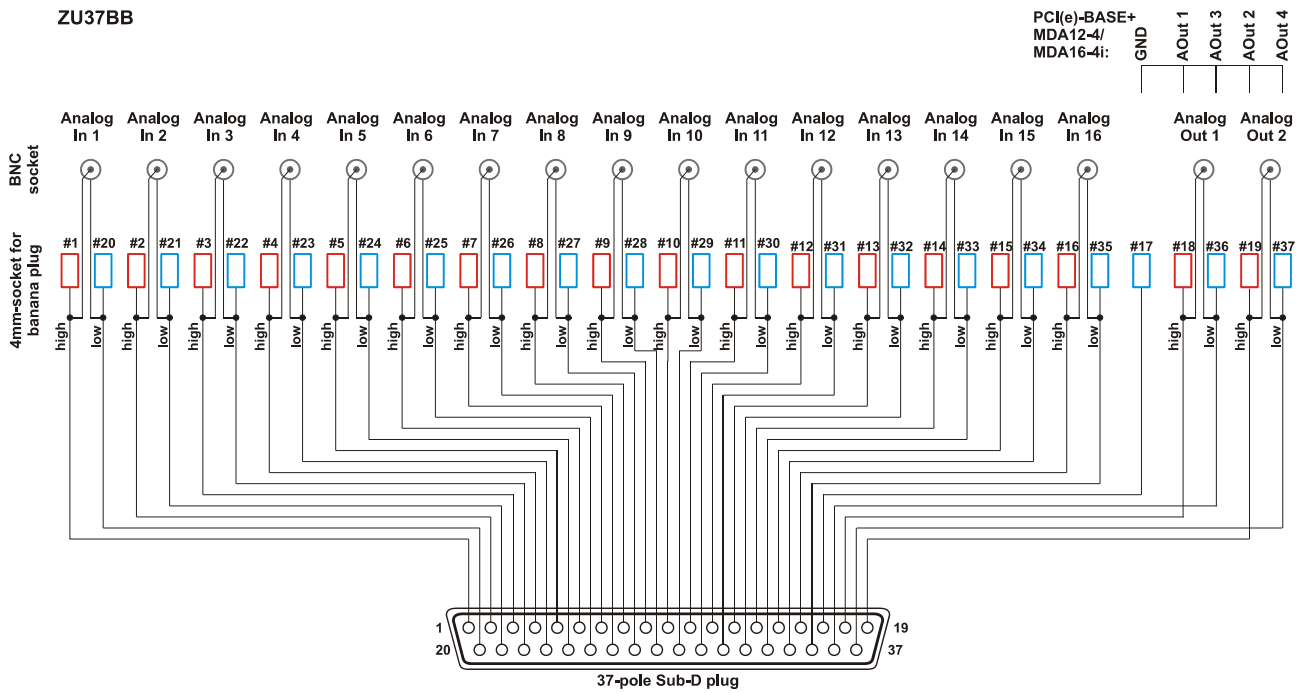
Connector and pin assignment



Always use one connector type of the ZU37BB/ZU37CB per channel only, as double connecting may damage the board!

For the connector board **ZU37BB** the pins of the 37-pole Sub-D plug are lead out at both 18 BNC sockets and 37 sockets 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. Depending on the connected measuring system 5V or GND are available at pin 17.

ZU37BB

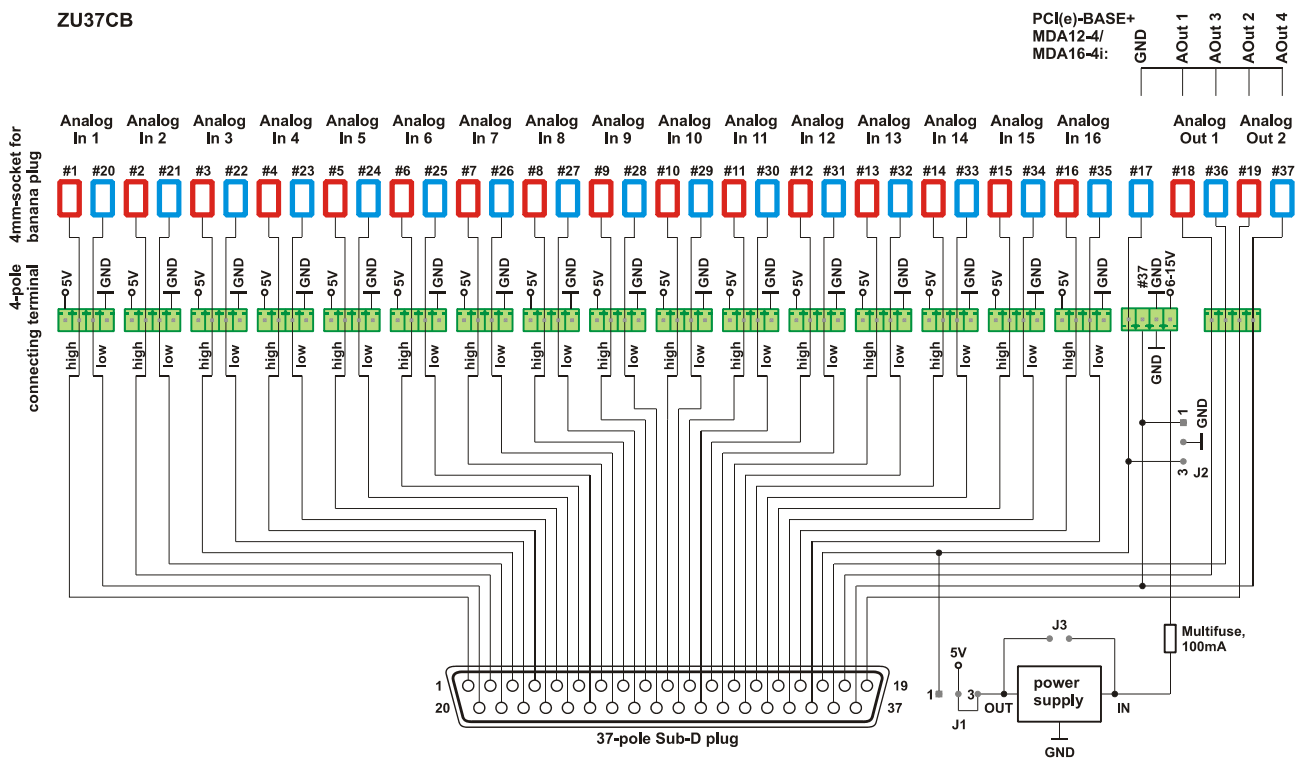


4mm-sockets for banana plugs, too, as well as 4-pole connecting terminals have been integrated into the **ZU37CB**. Like the **ZU37BB** the 4mm-sockets are arranged in pairs, the red socket is used for the *high*-connection, the blue one for the *low*-connection. Depending on the connected measuring system or jumper configuration 5V or GND are available at pin 17.

In addition the adapter provides for a power supply unit, so that a 6..15V supply voltage (5V also) can be connected at the terminal on the top left of the board, which can be used for sensor supply for example.

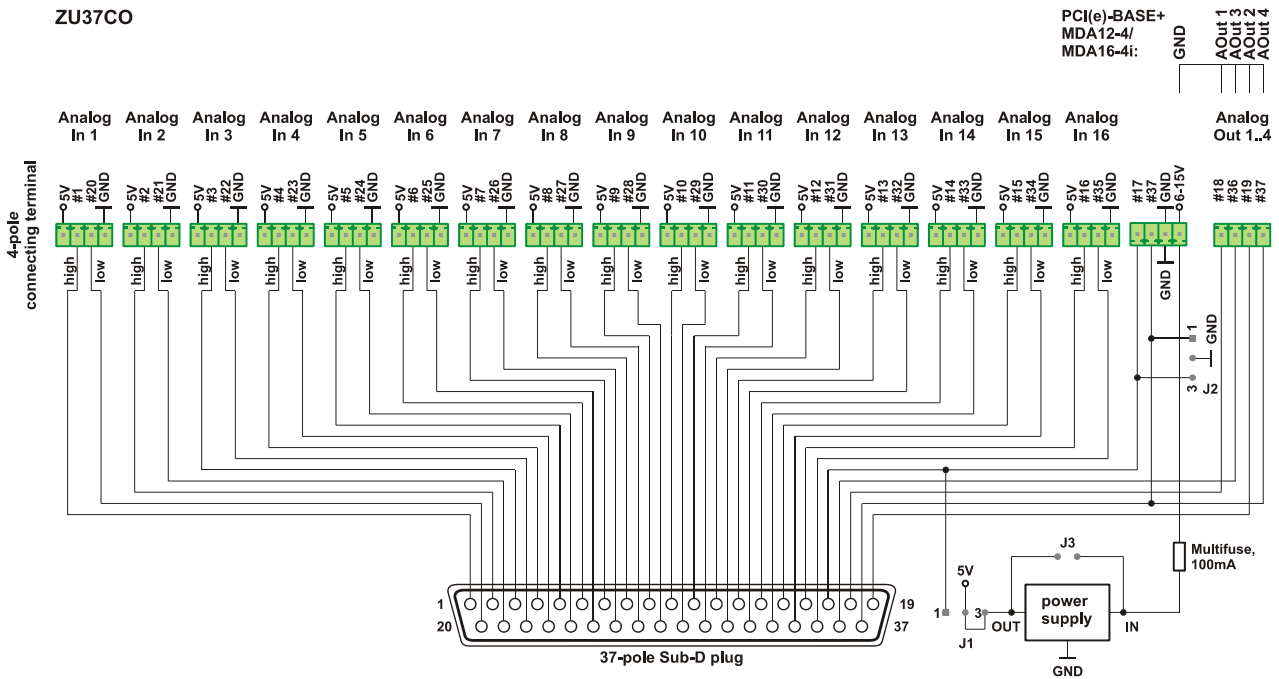
To comfortably connect signals to the terminals 4-pole screw-type terminal blocks are available in packages of 8 under the order number **ZU4ST**.

ZU37CB



The **ZU37CO** exclusively provides for 18 of the 4-pole connecting terminals, but besides that features the same functionality as the **ZU37CB**. Pin 17, where either 5V or GND is available, is lead out at the top left terminal, where power supply is connected also.

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



Assignment of the 37-pole Sub-D plug

The pin assignment of the 37-pole Sub-D plug if connected to a bmc measuring system is listed in the following table. For further information we refer to the corresponding data sheets.

Pin	iM3250(T)	iM-AD25(a)	meM-AD/-ADDA/ -ADf/-ADfo	meM-LOG	PCI-BASEII/ PCIe-BASE	PCI-BASEII/PCIe- BASE+ MDA in 2. slot	PC20TR/ P1000NV
1..16	+IN 1..16	AIn 1..16	AIn 1..16	AIn 1..16	with MAD: AIn 1..16 with MDA: AOut 1..2(4) at pin 1..2(4)		AIn 1..16
17	5V, max. 100mA	5V, max. 20mA	4-5V, max 20mA	5V, max. 100mA	-	GND	GND
18	n. c.	n. c.	AOut 1	-	-	AOut 1	AOut 1
19	n. c.	n. c.	-	-	-	AOut 2	AOut 2
20..35	-IN 1..16	AGND	GND	AGND	GND	GND	GND
36, 37	AGND	AGND	GND	GND	-	AOut 3+4 (only MDA12-4, MDA16-4i)	GND

Please note, that the PCI(e)-BASE with two MAD modules features 32 analog inputs. In this case, the first four analog inputs can be reached via pin 18, 19, 36 and 37 at the connectors "Analog Out 1" and "Analog Out 2" (**ZU37BB/ZU37CB**) or "Out 1..4" (**ZU37CB/ZU37CO**).

Jumper configuration (ZU37CB/ZU37CO only)

By three pluggable jumpers on the **ZU37CB/ZU37CO** the following options can be set:

jumper	function	pin 1+2	pin 2+3
J1	define source of auxiliary voltage	5V from Pin 17	5V from power supply
J2	assign GND	Pin 37 to GND	Pin 17 to GND
J3	define voltage supply	ext. supply with 5V (instead of 6..15V, max. 100mA because of Multifuse)	-

The jumper are placed next to the connecting terminal for power supply and are labeled on the board. Ex works only J1 is closed at pin 2+3.

Important notes for using the ZU37BB/ZU37CB/ZU37CO

- **ZU37BB/ZU37CB/ZU37CO** is only suitable for extra-low voltages - please observe the relevant regulations!
- The ground of the **ZU37BB/ZU37CB/ZU37CO** is connected with the ground of the PC. Very often the chassis of the PC is grounded, too. **Attention: Ground loops will lead to measuring errors!**
- For cleaning use water and mild detergent only. The product is designed to be maintenance-free.
- All accessible pins are electrostatic devices. Additional power supply is not necessary.
- The product must not be used for safety-relevant jobs. By using or processing this product the customer becomes manufacturer by law and therefore is responsible for the proper installation, use and handling of the product. In the case of improper use or unauthorized interference our warranty ceases and any warranty claims are excluded.
- In case of overload interrupt the power supply, so that the multifuse on the board regenerates. After app. 1 min. the fuse is ready for use.



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.

Technical data

Connections:	Sub-D 37 plug, 18x BNC sockets (ZU37BB) or 37x 4mm banana sockets (ZU37BB/ZU37CB) or 17x 4-pole connecting terminals (ZU37CB/ZU37CO) for 16 inputs and 2 outputs
Power supply:	ZU37CB/ZU37CO: 6..15V, max. 100mA (with J3: 5V) at 4-pole connecting terminal, protected with multifuse
Temperature range:	-25°C..70°C
Relative humidity:	0-90% (not condensing)
CE standards:	EN61000-6-1, EN61000-6-3, EN61010-1; for decl. of conformity (PDF) visit www.bmcm.de
ElektroG // ear registration:	RoHS and WEEE compliant // WEEE Reg.-No. DE75472248
Max. potentials:	60V DC acc. to VDE
Dimensions:	167mm x 105mm x app. 35mm
Delivery:	board in DIN rail carrier, DIN rail attachment, small ribbon bases
Available accessory:	connecting cable ZUKA37SB, 4-pole screw-type terminal blocks ZU4ST (package of 8), waterproof housings ZU-PBOX-PG, ZU-PBOX-LAN
Guarantee:	2 years with effect from sales date, damages at product resulting from improper use excluded