

AMS-OI16CO

16 isolated inputs, 16 isolated outputs for AMS amplifier measurement systems

Digital I/O professional.

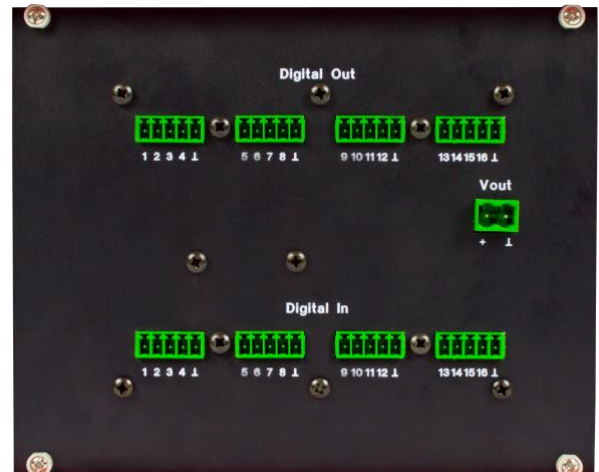
Fit your AMS amplifier measurement system with galvanically separated digital channels. All digital in- and outputs can be connected on the back side of the AMS-system via pluggable screw terminals.

16 digital outputs.

All 16 semiconductor switches of the AMS-OI16CO-RS422 are built for voltage in the range of 5..32V. You can display 5V of the measurement system or an applied voltage.

16 Digital inputs.

You can record 4 digital conditions in the voltage range of 3..32V via optocoupler inputs.

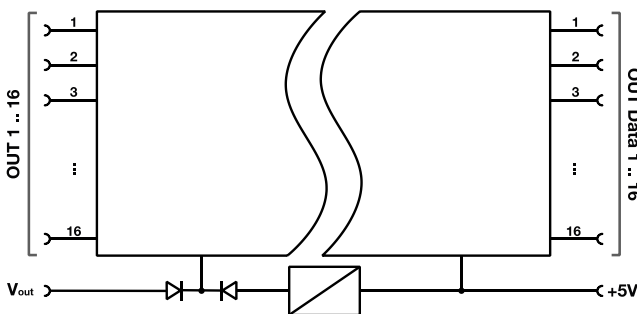


Obviously safe.

The galvanic separation of the digital lines amongst each other and to the measurement system provides a perfect protection for the whole system. All in- and outputs are fitted with catch diodes to suppress electrostatic discharges.

Signal connection: Screw. Insert. Done.

Digital sensor technology or voltage signals can be connected comfortably with pluggable screw terminals. These are available accessories (*ZU5STL*, *ZU2ST*) at bmcm.

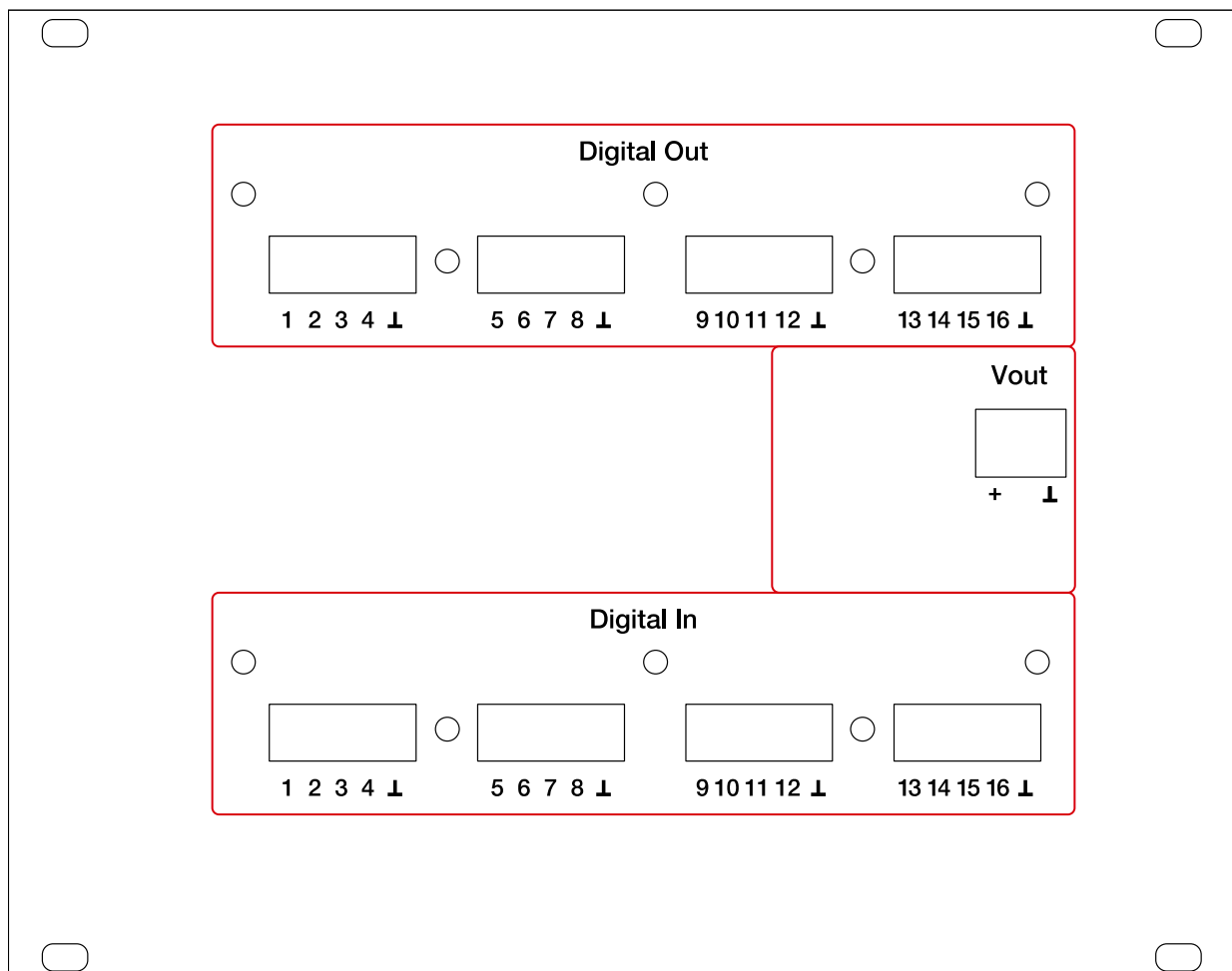


Functional diagram

1 Assignment of the digital channels

1.1 Connect signals

The lines of the digital in- and outputs are put together at the pluggable screw terminals in groups of 4. It is very comfortable to connect the signals with the sockets that are available as an accessory (ZU5STL).



1.1.1 Digital OUT

The 4 groups of the digital outputs (each 4 Bit) are connected with the 16 output lines of the measurement system via semiconductors. You have the choice to switch the 5V of the measurement system outside or the power supply of the Vout in the range of 7..32V.

1.1.2 Digital IN

There are up to 16 digital inputs available for the digital sensors or other signal sources in the voltage range of 3..32V at the connection point „Digital In“.

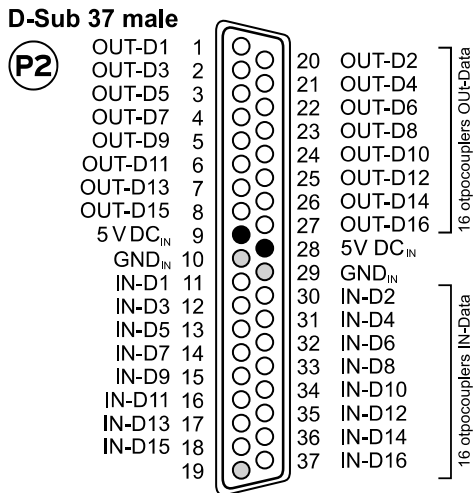
The signals are connected to the inputs 1..16 of the measurement system.

1.2 Internal connection to the measurement system

The device AMS-OI16CO is connected internally with the digital connector of the measurement system.

This is the reason why there are no signals available at the device front of the AMS system at the D-Sub37 connection.

The adjoining diagram shows the pin assignment of the internal connectors of the measurement system.



- GND_{IN} = digitale Masse / digital ground
- 5V Versorgung / power supply*

*from DAQ systems:
PCI-PIO, PCI-Base II, PCIe-Base, LAN-AD16fx

2 Important Notes for using the AMS-OI16CO

- The device is only suitable for extra-low voltages - please observe the relevant regulations! For reasons relating to EMC, it must only be used in closed PC housings. All accessible pins are vulnerable to electrostatic discharge.
- Only use an electrically isolated power supply unit (with CE).
- Only use non-solvent detergents for cleaning. The product is designed to be maintenance-free.
- The device 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.

3 Technical Data (typ. at 20°C, after 5min., +5V supply)

Digital inputs

Number:	16 optocoupler inputs
Input voltage range:	3...32V DC (>2,5V = high), max. 60V DC for 10sec.
Input current:	max. 10mA

Digital outputs

Number:	16 digital outputs, galvanically separated by optocoupler with 2 high-side drivers
Switching voltage:	5V DC (internal supply) or 7...32V DC (external supply)
Voltage drop (with ext. supply):	ca. 1,5V at the high-side driver
Switching current (with ext. supply):	max. 0,25A per output, max. 0,8A in total per 8 bit high-side driver at 25°C

General Data

Power supply:	7...24V DC, ±5%, own consumption max. 1W DC
Connection (user hardware):	pluggable screw terminals (5pol) for signals; 2pol for Vout
Connection (measurement system):	37-pol. D-Sub connector
Bandwidth:	1MHz
Temperatur ranges:	operating temperature -25°C..+60°C / storage temperature -25°C..+70°C
Relative humidity:	0..90% (not condensating)
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.-Nr. DE75472248
Max. permissible potentials (galv. separation):	60V DC acc. to VDE , max. 1kV ESD on open lines
Size (L x W x H):	32 TE / 3 HE
Available accessories:	ZU5STL; ZU2ST
Warranty:	2 years from date of purchase at bmcm, claims for damages resulting from improper use excluded