

Product Datasheet - Technical Specifications



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Backplane for 5B modules

For measuring amplifers and sensors. Get connected.

Carrier board in 5B technology: Up to two measuring amplifiers, converters, output modules, or any other function modules can be plugged into the analog backplane AP2a. The variety of available 5B modules provides for the solution of the most specific measuring tasks - individual and simple.

5B technology. Industrial standard.

The pin assignment of the backplane integrated in the AP2a corresponds to the 5B module standard of Analog Devices and Burr Brown. An additional 0EX pin has been introduced for sensors requiring unipolar supply to be suitable for connection.

Clearly safe.

Most of the 5B modules feature galvanic isolation of the channels from each other and from the data acquisition and control system. This perfectly protects the whole system against high potentials and interferences.



Well supplied.

The AP2a is operated with 5V or 9-40V optionally. The supply voltage is connected via screw-clamp terminals.

Signal connection. Clamp. Plug in. Ready.

Sensors or other signals can comfortably be connected via 7-pin spring terminal blocks, which are plugged in the relevant input connectors of the AP2a. The terminal blocks are included with delivery.

Connection to the DAQ system.

The amplifier outputs are available at a 3-pin screw terminal connector. They are connected to the input lines of a data acquisition system. Combining the AP2a with a measuring card or DAQ system from bmcm makes a powerful measurement system.

DIN rail mounting.

The AP2a comes with a DIN rail carrier with bracket to be easily mounted on a standard DIN rail as commonly used in electrical installation.

The big option. You have the choice.

For all needing more channels: The analog backplane is also available as an 8-channel version AP8a.

Technical data (typical at 20°C, after 5min., 9-40V supply)

Electrical data

Power supply:	940V (max. 1A DC, default setting ex works) or +5V DC \pm 5% (max. 1.5A DC)
Max. current to be drawn for the modules:	max. 120mA (≈ total of current of all individual modules)
Electrical isolation:	depending on the module in use
Max. permissible potentials:	60V DC acc. to VDE, max. 1kV ESD on open lines
General data	
Temperature ranges:	operating temp. 070 C, storage temp2570 C
Relative humidity:	0-90% (not condensing)
CE standards:	EN61000-6-1, EN61000-6-3, EN61010-1
ElektroG // ear registration:	RoHS and WEEE compliant // WEEE RegNo. DE75472248
Dimensions (L x W x H):	backplane: 10cm x 7cm x 4cm; with DIN rail carrier and bracket: 10cm x 7cm x 5cm
Available accessories (optional):	power supply ZU-PW40W, waterproof housing ZU-PBOX-PG, ZU-PBOX-LAN
Warranty:	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. 1.1 02/05/2020





For measuring amplifers and sensors. Get connected.

Carrier board in 5B technology: Up to eight measuring amplifiers, converters, output modules, or any other function modules can be plugged into the analog backplane AP8a. The variety of available 5B modules provides for the solution of the most specific measuring tasks individual and simple.

5B technology. Industrial standard.

The pin assignment of the backplane integrated in the AP8a corresponds to the 5B module standard of Analog Devices and Burr Brown. An additional 0EX pin has been introduced for sensors requiring unipolar supply.

Clearly safe.

Most of the 5B modules feature galvanic isolation of the channels from each other and from the data acquisition and control system. This perfectly protects the whole system against high potentials and interferences.



Functional diagram



Well supplied.

The AP8a is operated with 5V or 9-40V optionally. The supply voltage is connected via screw-clamp terminals.

Signal connection. Clamp. Plug in. Ready.

Sensors or other voltage signals can comfortably be connected via 7-pin spring terminal blocks (ZU7ST), which are plugged in the relevant input connectors of the AP8a.

Connection to the DAQ system.

The amplifier outputs are available at a 16-pin plug connector. They are connected to the input lines of a data acquisition system. Combining the AP8a with a measuring card or DAQ system from bmcm makes a powerful measurement system.

DIN rail mounting.

The AP8a comes with a DIN rail carrier with bracket to be easily mounted on a standard DIN rail as commonly used in electrical installation.

The small option. You have the choice.

For all needing less channels: The analog backplane is also available as a 2-channel version AP2.

Technical data (typical at 20°C, after 5min., 9-40V supply)

• Electrical data

Power supply: Max. current to be drawn for the modules: Electrical isolation: Max. permissible potentials:

General data

Temperature ranges // Relative humidity: CE standards: ElektroG // ear registration: Dimensions (L x W x H): Available accessories (optional):

Warranty:

 max. 1A (≈ total of current of all individual modules)

 depending on the module in use; in case of direct switching no electrical isolation!

 60V DC acc. to VDE, max. 1kV ESD on open lines

 00v DC acc. to VDE, max. 1kV ESD on open lines

 00v DC acc. to VDE, max. 1kV ESD on open lines

 00v DC acc. to VDE, max. 1kV ESD on open lines

 00v DC acc. to VDE, max. 1kV ESD on open lines

 00v DC acc. to VDE, max. 1kV ESD on open lines

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 00v DC acc. to VDE, max. 1kV ESD on open lines

 00v DC acc. to VDE, max.

9..40V (max. 1A DC, default setting ex works) or +5V DC ±5% (max. 1.5A DC)

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