



Combined Datasheet of GLET Module Series Accessories for Dataloggers Type GL...

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GLET Series

Accessory for datalogger series GL220 in modular enclosure



Models:

- GLET-IU-BA2-BA4 passive, conversion (4 x 250 R)
- GLET-B513-KA-BA4 passive, trigger/logic input, alarm output
- GLET-B513-KA-BA4-REL active, trigger/logic input, alarm output
- GLET-SU(2K)-BA2/B514-BI5 active, voltage signal, 1- / 2-channel
- GLET-SI(2K)-BA2/B514-BI5 active, current signal, 1- / 2-channel
- GLET-SG2K-BA2-BI7 active, with 2-channel strain gauge amplifier
- GLET-8B4K-BA2-BI5 active, with base rack for up to 4x 8B amplifiers

GLET-IU-BA2-BA4

Passive modular enclosure for conversion of (0)4 ... 20 mA to (0)1 ... 5 V



- Connection via jacks
- Supply voltage: ---
- Dimensions: 45 x 115 x 90 mm

Passive modular enclosure for the conversion of up to 4 measuring signals 0(4) ... 20 mA into a precise 0(1) ... 5 V signal, e. g. for acquisition with a GL220 type datalogger.

- Input signal: $I_{IN} = 0 \dots 20 \text{ mA}$ or $4 \dots 20 \text{ mA}$ ($U_{MAX} = 30 \text{ V}$)
- Output signal: $U_{OUT} = 0 \dots 5 \text{ V}$ or $1 \dots 5 \text{ V}$
- High-precision resistance 250 Ohm (0.1 %)
- Electrical connection measuring signal: 4 mm jack
- Electrical connection analog output to datalogger: 2 mm jack
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessory:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



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GLET-B513-KA-BA4

Passive modular enclosure for trigger inputs, logic inputs and alarm outputs as open collector

- Connection via jacks
- Supply voltage: ---
- Dimensions: 45 x 115 x 90 mm

Passive modular enclosure for trigger inputs, logic inputs and alarm outputs of a datalogger.

- Alarm outputs: open collector (see specification datalogger)
- Integrated jack: 4 mm jack
- Connection to datalogger: cable B-513
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessory:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



GLET-B513-KA-BA4-REL

Active modular enclosure for 1 trigger, 2 logic inputs and 3 alarm outputs via relay contacts

- Connection via jacks
- Supply voltage: 24 VDC ±5 %
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for 1 trigger, 2 logic inputs and 3 alarm outputs via relay contacts

- Alarm output via relay contacts (2x closing contact, 1x opening contact)
- Rating: max. 30 V, 0.5 A
- Integrated jack: 4 mm jack
- Connection to datalogger: cable B-513
- Supply voltage: 24 VDC ±5 % *)
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C



Recommended Accessory:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



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GLET-SU-BA2/B514-BI5 GLET-SU2K-BA2/B514-BI5

Active modular enclosure for active transducers / sensors with voltage output.

- Connection via connector and jack
- Supply voltage: 24 VDC $\pm 5\%$
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for wiring of one or two active transducers / sensors with voltage output in 3-wire technology in connection with a datalogger.

GLET-SU-BA2/B514-BI5 1 channel
GLET-SU2K-BA2/B514-BI5 2 channels

- Transducer excitation: 18 VDC (max. 50 mA)
- Input signal: 0 ... 5/10 V 3-wire
- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- Analog output signal: 0 ... 5/10 V
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C



1-channel version



2-channel version

GLET-SI-BA2/B514-BI5 GLET-SI2K-BA2/B514-BI5

Active modular enclosure for active transducers/sensors with current signal

- Connection via connector and jack
- Supply voltage: 24 VDC $\pm 5\%$
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for wiring of one or two active transducers / sensors with current signal in 2- or 3-wire technology in connection with a datalogger.

GLET-SI-BA2/B514-BI5 1 channel
GLET-SI2K-BA2/B514-BI5 2 channels

- Transducer excitation: 18 VDC (max. 30 mA)
- Input signal: 0(4) ... 20 mA 2- or 3-wire
- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- High-precision resistance 250 Ohm (0.1 %)
- Analog output signal: 0(1) ... 5 V
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C



1-channel version



2-channel version

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GLET-SG2K-BA2-BI7

Active modular enclosure with 2 channel strain gauge amplifier

- Connection via BNC and jack
- Supply voltage: 24 VDC ± 5 %
- Dimension: 45 x 115 x 90 mm



Active modular enclosure for the connection of passive strain gauge transducers / sensors (bridge resistance more than 350 Ohm) in connection with a datalogger

- Number of measuring channels: 2
Potentiometers for zero and span adjustment
- Strain gauge excitation: 5 VDC (max. 15 mA/channel)
- Input sensitivity: 1 ... 3 mV/V
- Limit frequency: 1 kHz
- Connector for transducer: 7-pin connector (Binder, supplied with mating)
- Analog output signal: 0 ... 10 V, ± 10 V
- Analog output rating: max. 1 mA
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC ± 5 % *)
- Enclosure: desktop
- Dimension without connectors (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

GLET-8B4K-BA2-BI5

Active modular enclosure with base rack for up to 4 8B-module amplifiers

- Connection via connector and jack
- Supply voltage: 24 VDC ± 5 %
- Dimension: 74 x 115 x 175 mm



Active modular enclosure with base rack for up to 4 8B-module amplifiers

- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC ± 5 % *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 74 x 115 x 175 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50°

8B-module amplifiers

Please see detailed specification for the 8B-module amplifiers in their respective datasheets.

General specification:

- 1500 Vrms isolation
- 240 Vrms input protection
- -40 ... +85 °C operating temperature range



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DI-8B-32 / DI-8B-42 Current input modules

The amplifier modules DI-8B-32/-42 convert commonly used 4 ... 20 mA current signals to a proportional analog output voltage signal of 1 ... 5 V or 2 ... 10 V. Additionally, an isolated 15 V loop supply voltage (DI-8B42 only) is provided for transmitter excitation. A high-precision resistance for plugging into the board is supplied with the module. The galvanic isolation reduces noises and the effect of ground loops, which is barely avoidable in large and complex measuring setups.

DI-8B-32 / DI-8B-42 overview:

- input 4 ... 20 mA
- sensor excitation 15 VDC (DI-8B-42 only)
- output +1 ... +5 V or +2 ...+10 V
- common mode rejection 100 dB
- accuracy ± 0.05 %
- linearity ± 0.02 %
- bandwidth 100 Hz
- supply voltage +5 V

DI-8B-34 Linearized 2- or 3-wire RTD modules

The amplifier modules DI-8B-34 are designed for Pt100 sensor excitation and signal conditioning. The Pt100 resistance value varies with the temperature, i. e. the module with Pt100 sensor provides an output voltage of 0 ... 5 V proportional to the temperature. Since the resistance gradient over temperature is not a linear line, the signal is linearized by the module.

DI-8B-34 overview:

- PT100 sensor input 2-,3-wire
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.05 %
- linearity ± 0.02 %
- bandwidth 3 Hz
- input resistance <30 Ohm
- supply voltage +5 V

DI-8B-35 Linearized 4-wire RTD modules

The amplifier modules DI-8B-35 are designed for Pt100 sensor excitation and signal conditioning. The Pt100 resistance value varies with the temperature, i. e. the module with Pt100 sensor provides an output voltage of 0 ... 5 V proportional to the temperature. Since the resistance gradient over temperature is not a linear line, the signal is linearized by the module.

DI-8B-35 overview:

- interface to 100 Ohm platinum resistance thermometer, 4-wire
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.20 °C
- bandwidth 4 Hz
- input resistance 50 MOhm
- supply voltage +5 V

DI-8B-36 Potentiometer input module

The module amplifier DI-8B-36 (potentiometer input module) filters, isolates, amplifies a single potentiometer input and provides an analog output signal (0 ... 5 V). This voltage output is controlled by a TTL logic input. The DI-8B-36 modules are designed with a completely isolated output circuit. The potentiometer excitation is provided by using two matched current sources. When using a 3-wire potentiometer, this method allows canceling the effects of lead resistances. The excitation currents are small which minimizes the self-heating of the potentiometer.

DI-8B-36 overview:

- interface to potentiometers up to 10000 Ohm
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.05 %
- linearity 0.02 %
- bandwidth 3 Hz
- input resistance 50 MOhm
- supply voltage ± 5 V

DI-8B-38 Strain gauge input module

Each module amplifier DI-8B-38 (strain gauge input module) is a single input channel, which is filtered, isolated, amplified and converted to an analog output signal (0...5 V or ± 5 V). These modules can interface to full- or half-bridge strain gauges with a resistance of 100 ... 10000 Ohm or 300 ... 10000 Ohm. The bridge excitation is provided from the module with a stable 3.33 V or 10 V voltage source.

DI-8B-38 overview:

- interface to full or half bridges
- bridge excitation 3.33 V or 10.00 V
- bridge resistance 100 ... 20000 Ohm or 300 ... 20000 Ohm
- output ± 5 V
- isolation 1500 Vrms
- input protection 240 Vrms
- common mode rejection 100 dB
- accuracy ± 0.05 %
- linearity 0.02 %
- bandwidth 3 kHz
- input resistance 50 MOhm
- supply voltage +5 V

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DI-8B-45 Frequency input module

Each frequency input module DI-8B-45 converts the applied input frequency (0 ... 500 Hz to 0 ... 100 kHz) to a galvanic isolated output voltage of 0 ... 5 V. The frequency input signal can be a TTL signal or a signal with zero-crossing, but these input signals have to be connected in different ways. The galvanic isolation reduces noises and the effect of ground loops, which is barely avoidable in large and complex measuring setups.

DI-8B-45 overview:

- input 0 ... 500 Hz to 0 ... 100 kHz
- output 0 ... 5 V
- common mode rejection 100 dB
- accuracy ± 0.10 %
- linearity ± 0.05 %
- supply voltage +5 V

Preview – further GLET Accessories:

GLET-B514-KA-bat: Additional battery block for a longer power-supply-independent operation (GL2/8/900)

GLET-TCmini-TMEBx-KA: Interface box with mini connector for thermocouples (GL2/8/900)

GLET-SU...: Version with bi-directional supply ± 15 VDC

Customised versions available on request.

*) For voltage supply the datalogger's AC-adaptor can be used. The unit provides a jack for AC-adaptor connection, as well as a datalogger supply cable (comparable to B-514). For use with multiple GLET units an additional AC-adaptor is required.

Due to continual product development, ALTHEN and partners reserve the right to vary the foregoing details without prior notice.

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GLET Series

Accessory for datalogger series GL820 / GL800 in modular enclosure



Models:

- | | |
|--------------------------|---|
| GLET-IU-BA2-BA4 | passive, conversion (4 x 250 R) |
| GLET-B513-KA-BA4 | passive, trigger/logic input, alarm output |
| GLET-B513-KA-BA4-REL | active, trigger/logic input, alarm output |
| GLET-SU(2K)-BA2/B514-BI5 | active, voltage signal, 1- / 2-channel |
| GLET-SI(2K)-BA2/B514-BI5 | active, current signal, 1- / 2-channel |
| GLET-SG2K-BA2-BI7 | active, with 2-channel strain gauge amplifier |
| GLET-8B4K-BA2-BI5 | active, with base rack for up to 4x 8B amplifiers |

GLET-IU-BA2-BA4

Passive modular enclosure for conversion of (0)4 ... 20 mA to (0)1 ... 5 V



- Connection via jacks
- Supply voltage: ---
- Dimensions: 45 x 115 x 90 mm

Passive modular enclosure for the conversion of up to 4 measuring signals 0(4) ... 20 mA into a precise 0(1) ... 5 V signal, e. g. for acquisition with a GL820 or GL800 type datalogger.

- Input signal: $I_{IN} = 0 \dots 20 \text{ mA}$ or $4 \dots 20 \text{ mA}$ ($U_{MAX} = 30 \text{ V}$)
- Output signal: $U_{OUT} = 0 \dots 5 \text{ V}$ or $1 \dots 5 \text{ V}$
- High-precision resistance 250 Ohm (0.1 %)
- Electrical connection measuring signal: 4 mm jack
- Electrical connection analog output to datalogger: 2 mm jack
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessory:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



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GLET-B513-KA-BA4

Passive modular enclosure for trigger inputs, logic inputs and alarm outputs as open collector

- Connection via jacks
- Supply voltage: ---
- Dimensions: 45 x 115 x 90 mm

Passive modular enclosure for trigger inputs, logic inputs and alarm outputs of a datalogger.

- Alarm outputs: open collector (see specification datalogger)
- Integrated jack: 4 mm jack
- Connection to datalogger: cable B-513
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessory:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



GLET-B513-KA-BA4-REL

Active modular enclosure for 1 trigger, 2 logic inputs and 3 alarm outputs via relay contacts

- Connection via jacks
- Supply voltage: 24 VDC ±5 %
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for 1 trigger, 2 logic inputs and 3 alarm outputs via relay contacts

- Alarm output via relay contacts (2x closing contact, 1x opening contact)
- Rating: max. 30 V, 0.5 A
- Integrated jack: 4 mm jack
- Connection to datalogger: cable B-513
- Supply voltage: 24 VDC ±5 % *)
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C



Recommended Accessory:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



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GLET-SU-BA2/B514-BI5 GLET-SU2K-BA2/B514-BI5

Active modular enclosure for active transducers / sensors with voltage output.

- Connection via connector and jack
- Supply voltage: 24 VDC $\pm 5\%$
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for wiring of one or two active transducers / sensors with voltage output in 3-wire technology in connection with a datalogger.

GLET-SU-BA2/B514-BI5 1 channel
GLET-SU2K-BA2/B514-BI5 2 channels

- Transducer excitation: 18 VDC (max. 50 mA)
- Input signal: 0 ... 5/10 V 3-wire
- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- Analog output signal: 0 ... 5/10 V
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C



1-channel version



2-channel version

GLET-SI-BA2/B514-BI5 GLET-SI2K-BA2/B514-BI5

Active modular enclosure for active transducers/sensors with current signal

- Connection via connector and jack
- Supply voltage: 24 VDC $\pm 5\%$
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for wiring of one or two active transducers / sensors with current signal in 2- or 3-wire technology in connection with a datalogger.

GLET-SI-BA2/B514-BI5 1 channel
GLET-SI2K-BA2/B514-BI5 2 channels

- Transducer excitation: 18 VDC (max. 30 mA)
- Input signal: 0(4) ... 20 mA 2- or 3-wire
- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- High-precision resistance 250 Ohm (0.1 %)
- Analog output signal: 0(1) ... 5 V
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C



1-channel version



2-channel version

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GLET-SG2K-BA2-BI7

Active modular enclosure with 2 channel strain gauge amplifier

- Connection via BNC and jack
- Supply voltage: 24 VDC ± 5 %
- Dimension: 45 x 115 x 90 mm



Active modular enclosure for the connection of passive strain gauge transducers / sensors (bridge resistance more than 350 Ohm) in connection with a datalogger

- Number of measuring channels: 2
Potentiometers for zero and span adjustment
- Strain gauge excitation: 5 VDC (max. 15 mA/channel)
- Input sensitivity: 1 ... 3 mV/V
- Limit frequency: 1 kHz
- Connector for transducer: 7-pin connector (Binder, supplied with mating)
- Analog output signal: 0 ... 10 V, ± 10 V
- Analog output rating: max. 1 mA
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC ± 5 % *)
- Enclosure: desktop
- Dimension without connectors (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

GLET-8B4K-BA2-BI5

Active modular enclosure with base rack for up to 4 8B-module amplifiers

- Connection via connector and jack
- Supply voltage: 24 VDC ± 5 %
- Dimension: 74 x 115 x 175 mm



Active modular enclosure with base rack for up to 4 8B-module amplifiers

- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- Electrical connection analog output to datalogger: 2 mm jack
- Supply voltage: 24 VDC ± 5 % *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 74 x 115 x 175 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50°

8B-module amplifiers

Please see detailed specification for the 8B-module amplifiers in their respective datasheets.

General specification:

- 1500 Vrms isolation
- 240 Vrms input protection
- -40 ... +85 °C operating temperature range



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DI-8B-32 / DI-8B-42 Current input modules

The amplifier modules DI-8B-32/-42 convert commonly used 4 ... 20 mA current signals to a proportional analog output voltage signal of 1 ... 5 V or 2 ... 10 V. Additionally, an isolated 15 V loop supply voltage (DI-8B42 only) is provided for transmitter excitation. A high-precision resistance for plugging into the board is supplied with the module. The galvanic isolation reduces noises and the effect of ground loops, which is barely avoidable in large and complex measuring setups.

DI-8B-34 Linearized 2- or 3-wire RTD modules

The amplifier modules DI-8B-34 are designed for Pt100 sensor excitation and signal conditioning. The Pt100 resistance value varies with the temperature, i. e. the module with Pt100 sensor provides an output voltage of 0 ... 5 V proportional to the temperature. Since the resistance gradient over temperature is not a linear line, the signal is linearized by the module.

DI-8B-35 Linearized 4-wire RTD modules

The amplifier modules DI-8B-35 are designed for Pt100 sensor excitation and signal conditioning. The Pt100 resistance value varies with the temperature, i. e. the module with Pt100 sensor provides an output voltage of 0 ... 5 V proportional to the temperature. Since the resistance gradient over temperature is not a linear line, the signal is linearized by the module.

DI-8B-36 Potentiometer input module

The module amplifier DI-8B-36 (potentiometer input module) filters, isolates, amplifies a single potentiometer input and provides an analog output signal (0 ... 5 V). This voltage output is controlled by a TTL logic input. The DI-8B-36 modules are designed with a completely isolated output circuit. The potentiometer excitation is provided by using two matched current sources. When using a 3-wire potentiometer, this method allows canceling the effects of lead resistances. The excitation currents are small which minimizes the self-heating of the potentiometer.

DI-8B-38 Strain gauge input module

Each module amplifier DI-8B-38 (strain gauge input module) is a single input channel, which is filtered, isolated, amplified and converted to an analog output signal (0...5 V or $\pm 5V$). These modules can interface to full- or half-bridge strain gauges with a resistance of 100 ... 10000 Ohm or 300 ... 10000 Ohm. The bridge excitation is provided from the module with a stable 3.33 V or 10 V voltage source.

DI-8B-32 / DI-8B-42 overview:

- input 4 ... 20 mA
- sensor excitation 15 VDC (DI-8B-42 only)
- output +1 ... +5 V or +2 ... +10 V
- common mode rejection 100 dB
- accuracy ± 0.05 %
- linearity ± 0.02 %
- bandwidth 100 Hz
- supply voltage +5 V

DI-8B-34 overview:

- PT100 sensor input 2-,3-wire
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.05 %
- linearity ± 0.02 %
- bandwidth 3 Hz
- input resistance <30 Ohm
- supply voltage +5 V

DI-8B-35 overview:

- interface to 100 Ohm platinum resistance thermometer, 4-wire
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.20 °C
- bandwidth 4 Hz
- input resistance 50 MOhm
- supply voltage +5 V

DI-8B-36 overview:

- interface to potentiometers up to 10000 Ohm
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.05 %
- linearity 0.02 %
- bandwidth 3 Hz
- input resistance 50 MOhm
- supply voltage ± 5 V

DI-8B-38 overview:

- interface to full or half bridges
- bridge excitation 3.33 V or 10.00 V
- bridge resistance 100 ... 20000 Ohm or 300 ... 20000 Ohm
- output ± 5 V
- isolation 1500 Vrms
- input protection 240 Vrms
- common mode rejection 100 dB
- accuracy ± 0.05 %
- linearity 0.02 %
- bandwidth 3 kHz
- input resistance 50 MOhm
- supply voltage +5 V

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DI-8B-45 Frequency input module

Each frequency input module DI-8B-45 converts the applied input frequency (0 ... 500 Hz to 0 ... 100 kHz) to a galvanic isolated output voltage of 0 ... 5 V. The frequency input signal can be a TTL signal or a signal with zero-crossing, but these input signals have to be connected in different ways. The galvanic isolation reduces noises and the effect of ground loops, which is barely avoidable in large and complex measuring setups.

DI-8B-45 overview:

- input 0 ... 500 Hz to 0 ... 100 kHz
- output 0 ... 5 V
- common mode rejection 100 dB
- accuracy ± 0.10 %
- linearity ± 0.05 %
- supply voltage +5 V

Preview – further GLET Accessories:

GLET-B514-KA-bat: Additional battery block for a longer power-supply-independent operation (GL2/8/900)

GLET-TCmini-TMEBx-KA: Interface box with mini connector for thermocouples (GL2/8/900)

GLET-SU...: Version with bi-directional supply ± 15 VDC

Customised versions available on request.

*) For voltage supply the datalogger's AC-adapter can be used. The unit provides a jack for AC-adapter connection, as well as a datalogger supply cable (comparable to B-514). For use with multiple GLET units an additional AC-adapter is required.

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GLET Series

Accessory for dataloggers of series GL900 in modular enclosure



Models:

■ GLET-IU-BNC-BA4	passive, conversion (4 x 250 R)
■ GLET-B513-KA-BA4	passive, trigger/logic input, alarm output
■ GLET-B513-KA-BA4-REL	active, trigger/logic input, alarm output
■ GLET-SU(2K)-BNC/B514-BI5	active, voltage signal, 1- / 2-channel
■ GLET-SI(2K)-BNC/B514-BI5	active, current signal, 1- / 2-channel
■ GLET-SG2K-BNC-BI7	active, with 2-channel strain gauge amplifier
■ GLET-8B4K-BNC-BI5	active, with base rack for up to 4x 8B amplifiers

GLET-IU-BNC-BA4

Passive modular enclosure for conversion of (0)4 ... 20 mA to (0)1 ... 5 V

- Connection via jacks and BNC
- Supply voltage: ---
- Dimensions: 45 x 115 x 90 mm



Passive modular enclosure for the conversion of up to 4 measuring signals 0(4) ... 20 mA into a precise 0(1) ... 5 V signal, e. g. for acquisition with a datalogger

- Input signal: $I_{IN} = 0 \dots 20 \text{ mA}$ or $4 \dots 20 \text{ mA}$ ($U_{MAX} = 30 \text{ V}$)
- Output signal: $U_{OUT} = 0 \dots 5 \text{ V}$ or $1 \dots 5 \text{ V}$
- High-precision resistance 250 Ohm (0.1 %)
- Electrical connection measuring signal: 4 mm jack
- Electrical connection analog output to datalogger: BNC
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessories:

KA-BNC-iso-sw-0.5m

BNC safety connection cable with 2 straight BNC connectors

- Material: PVC
- Rating: 1000 V, CAT II (600 V CAT III)
- Cable length: 0.5 m
- Colour: black



ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



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GLET-B513-KA-BA4

Passive modular enclosure for trigger inputs, logic inputs and alarm outputs as open collector

- **Connection via jacks**
- **Supply voltage: ---**
- **Dimensions: 45 x 115 x 90 mm**

Passive modular enclosure for trigger inputs, logic inputs and alarm outputs of datalogger GL900

- Alarm outputs: open collector (see specification datalogger)
- Integrated jack: 4 mm jack
- Connection to datalogger: cable B-513
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessories:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



GLET-B513-KA-BA4-REL

Active modular enclosure for 1 trigger, 2 logic inputs and 3 alarm outputs via relay contacts

- **Connection via jacks**
- **Supply voltage: 24 VDC ±5 %**
- **Dimensions: 45 x 115 x 90 mm**

Active modular enclosure for 1 trigger, 2 logic inputs and 3 alarm outputs via relay contacts

- Alarm output via relay contacts (2x closing contact, 1x opening contact)
- Rating: max. 30 V, 0.5 A
- Integrated jack: 4 mm jack
- Connection to datalogger: cable B-513
- Supply voltage: 24 VDC ±5 % *)
- Enclosure: desktop
- Dimensions without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessories:

ADAPKLS4

Set of 2 clamping connectors for direct connection of dismantled leads

- Connector type: 4 mm connector
- Wire cross section: 0.12 ... 2.5 mm²
- Colour: red and black
- Configured for voltages up to max. 30 V



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GLET-SU-BNC/B514-BI5 GLET-SU2K-BNC/B514-BI5

Active modular enclosure for active transducers/sensors with voltage output

- Connection via connector and BNC
- Supply voltage: 24 VDC ± 5 %
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for wiring of one or two active transducers / sensors with voltage output in 3-wire technology in connection with a datalogger

GLET-SU-BNC/B514-BI5 1 channel
GLET-SU2K-BNC/B514-BI5 2 channels

- Transducer excitation: 18 VDC (max. 50 mA)
- Input signal: 0 ... 5/10 V 3-wire
- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- Analog output signal: 0 ... 5/10 V
- Electrical connection analog output to datalogger: BNC
- Supply voltage: 24 VDC ± 5 % *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessories:

KA-BNC-iso-sw-0.5m

BNC safety connection cable with 2 straight BNC connectors

- Material: PVC
- Rating: 1000 V, CAT II (600 V CAT III)
- Cable length: 0.5 m
- Colour: black



1-channel version



2-channel version



GLET-SI-BNC/B514-BI5 GLET-SI2K-BNC/B514-BI5

Active modular enclosure for active transducers / sensors with current signal

- Connection via connector and BNC
- Supply voltage: 24 VDC ± 5 %
- Dimensions: 45 x 115 x 90 mm

Active modular enclosure for wiring of one or two active transducers / sensors with current signal in 2- or 3-wire technology in connection with a datalogger

GLET-SI-BNC/B514-BI5 1 channel
GLET-SI2K-BNC/B514-BI5 2 channels

- Transducer excitation: 18 VDC (max. 30 mA)
- Input signal: 0(4) ... 20 mA 2- or 3-wire
- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- High-precision resistance 250 Ohm (0.1 %)
- Analog output signal: 0(1) ... 5 V
- Electrical connection analog output to datalogger: BNC



1-channel version



2-channel version

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- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop
- Dimension without connections (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessories:

KA-BNC-iso-sw-0.5m

BNC safety connection cable with 2 straight BNC connectors

- Material: PVC
- Rating: 1000 V, CAT II (600 V CAT III)
- Cable length: 0.5 m
- Colour: black



GLET-SG2K-BNC-BI7

Active modular enclosure with 2 channel strain gauge amplifier

- **Connection via BNC and connector**
- **Supply voltage: 24 VDC $\pm 5\%$**
- **Dimension: 45 x 115 x 90 mm**



Active modular enclosure for the connection of passive strain gauge transducers/sensors (bridge resistance more than 350 Ohm) in connection with a datalogger.

- Number of measuring channels: 2
- Potentiometers for zero and span adjustment
- Strain gauge excitation: 5 VDC (max. 15 mA/channel)
- Input sensitivity: 1 ... 3 mV/V)
- Limit frequency: 1 kHz
- Connector for transducer: 7-pin connector (Binder, supplied with mating connector)
- Analog output signal: 0 ... 10 V, ± 10 V
- Analog output rating: max. 1 mA
- Electrical connection analog output to datalogger: BNC
- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop
- Dimension without connectors (WxHxD): approx. 45 x 115 x 90 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

GLET-8B4K-BNC-BI5

Active modular enclosure with base rack for up to 4 8B-module amplifiers

- **Connection via BNC or connector**
- **Supply voltage: 24 VDC $\pm 5\%$**
- **Dimension: 74 x 115 x 175 mm**



Active modular enclosure with base rack for up to 4 8B-module amplifiers

- Connector for transducer: 5-pin connector (Binder, supplied with mating connector)
- Electrical connection analog output to datalogger: BNC
- Supply voltage: 24 VDC $\pm 5\%$ *)
- Enclosure: desktop

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- Dimension without connections (WxHxD): approx. 74 x 115 x 175 mm
- Environmental sealing: IP20
- Operating temperature range: 0 ... +50 °C

Recommended Accessories:

KA-BNC-iso-sw-0.5m

BNC safety connection cable with 2 straight BNC connectors

- Material: PVC
- Rating: 1000 V, CAT II (600 V CAT III)
- Cable length: 0.5 m
- Colour: black



8B-module amplifiers

Please see detailed specification for the 8B-module amplifiers in their respective datasheets.

General specification:

- ▶ 1500 Vrms isolation
- ▶ 240 Vrms input protection
- ▶ -40 ... +85 °C operating temperature range



DI-8B-32 / DI-8B-42 Current input modules

The amplifier modules DI-8B-32/-42 convert commonly used 4 ... 20 mA current signals to a proportional analog output voltage signal of 1 ... 5 V or 2 ... 10 V. Additionally, an isolated 15 V loop supply voltage (DI-8B42 only) is provided for transmitter excitation. A high-precision resistance for plugging into the board is supplied with the module. The galvanic isolation reduces noises and the effect of ground loops, which is barely avoidable in large and complex measuring setups.

DI-8B-32 / DI-8B-42 overview:

- ▶ input 4 ... 20 mA
- ▶ sensor excitation 15 VDC (DI-8B-42 only)
- ▶ output +1 ... +5 V or +2 ... +10 V
- ▶ common mode rejection 100 dB
- ▶ accuracy ±0.05 %
- ▶ linearity ±0.02 %
- ▶ bandwidth 100 Hz
- ▶ supply voltage +5 V

DI-8B-34 Linearized 2- or 3-wire RTD modules

The amplifier modules DI-8B-34 are designed for Pt100 sensor excitation and signal conditioning. The Pt100 resistance value varies with the temperature, i. e. the module with Pt100 sensor provides an output voltage of 0 ... 5 V proportional to the temperature. Since the resistance gradient over temperature is not a linear line, the signal is linearized by the module.

DI-8B-34 overview:

- ▶ PT100 sensor input 2-,3-wire
- ▶ output 0 ... 5 V
- ▶ common mode rejection 120 dB
- ▶ accuracy ±0.05 %
- ▶ linearity ±0.02 %
- ▶ bandwidth 3 Hz
- ▶ input resistance <30 Ohm
- ▶ supply voltage +5 V

DI-8B-35 Linearized 4-wire RTD modules

The amplifier modules DI-8B-35 are designed for Pt100 sensor excitation and signal conditioning. The Pt100 resistance value varies with the temperature, i. e. the module with Pt100 sensor provides an output voltage of 0 ... 5 V proportional to the temperature. Since the resistance gradient over temperature is not a linear line, the signal is linearized by the module.

DI-8B-35 overview:

- ▶ interface to 100 Ohm platinum resistance thermometer, 4-wire
- ▶ output 0 ... 5 V
- ▶ common mode rejection 120 dB
- ▶ accuracy ±0.20 °C
- ▶ bandwidth 4 Hz
- ▶ input resistance 50 MOhm
- ▶ supply voltage +5 V

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DI-8B-36 Potentiometer input module

The module amplifier DI-8B-36 (potentiometer input module) filters, isolates, amplifies a single potentiometer input and provides an analog output signal (0 ... 5 V). This voltage output is controlled by a TTL logic input. The DI-8B-36 modules are designed with a completely isolated output circuit. The potentiometer excitation is provided by using two matched current sources. When using a 3-wire potentiometer, this method allows canceling the effects of lead resistances. The excitation currents are small which minimizes the self-heating of the potentiometer.

DI-8B-36 overview:

- interface to potentiometers up to 10000 Ohm
- output 0 ... 5 V
- common mode rejection 120 dB
- accuracy ± 0.05 %
- linearity 0.02 %
- bandwidth 3 Hz
- input resistance 50 MOhm
- supply voltage ± 5 V

DI-8B-38 Strain gauge input module

Each module amplifier DI-8B-38 (strain gauge input module) is a single input channel, which is filtered, isolated, amplified and converted to an analog output signal (0...5 V or ± 5 V). These modules can interface to full- or half-bridge strain gauges with a resistance of 100 ... 10000 Ohm or 300 ... 10000 Ohm. The bridge excitation is provided from the module with a stable 3.33 V or 10 V voltage source.

DI-8B-38 overview:

- interface to full or half bridges
- bridge excitation 3.33 V or 10.00 V
- bridge resistance 100 ... 20000 Ohm or 300 ... 20000 Ohm
- output ± 5 V
- isolation 1500 Vrms
- input protection 240 Vrms
- common mode rejection 100 dB
- accuracy ± 0.05 %
- linearity 0.02 %
- bandwidth 3 kHz
- input resistance 50 MOhm
- supply voltage ± 5 V

DI-8B-45 Frequency input module

Each frequency input module DI-8B-45 converts the applied input frequency (0 ... 500 Hz to 0 ... 100 kHz) to a galvanic isolated output voltage of 0 ... 5 V. The frequency input signal can be a TTL signal or a signal with zero-crossing, but these input signals have to be connected in different ways. The galvanic isolation reduces noises and the effect of ground loops, which is barely avoidable in large and complex measuring setups.

DI-8B-45 overview:

- input 0 ... 500 Hz to 0 ... 100 kHz
- output 0 ... 5 V
- common mode rejection 100 dB
- accuracy ± 0.10 %
- linearity ± 0.05 %
- supply voltage ± 5 V

Preview – further GLET Accessories:

GLET-B514-KA-bat: Additional battery block for a longer power-supply-independent operation (GL2/8/900)

GLET-TCmini-TMEBx-KA: Interface box with mini connector for thermocouples (GL2/8/900)

GLET-SU...: Version with bi-directional supply ± 15 VDC

Customised versions available on request.

*) For voltage supply the datalogger's AC-adaptor can be used. The unit provides a jack for AC-adaptor connection, as well as a datalogger supply cable (comparable to B-514). For use with multiple GLET units an additional AC-adaptor is required.

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