

Difference – Limit Monitor/Comparator $\pm 20\mu\text{A}$ to 20mA GW3

Characteristics:

- Relay output 1 changeover contact
- Optocoupler output 100mA/24VDC, short-circuit proof
- Accuracy < 0,05%
- Input polarity selectable
- Switching hysteresis 2 - 40% with vernier adjustment
- Differential gap of 0,1 – 100% with vernier adjustment
- Display when the limit value has been reached
- Supply 24VDC
- Mountable on 35mm cap rail TS35
- Clear terminal labeling
- Narrow design
- Shape 17,5mm
- PB - Power-Bus compatible
- High reliability, 5 years warranty



Description:

The devices of the series GW3 limit monitor have been developed for monitoring DC voltages. Voltages of $\pm 10\text{mV} \dots 10\text{VDC}$ can be recorded. While wiring of two inputs this device also works as a direct comparator. Two not negated and one negated inputs are available. The polarity of the difference of the monitored currents can be preset via jumper. The rough adjustment of the operating point also is effected via jumper, while the fine adjustment is effected by a 20-turns spindle-operated potentiometer. The switch point of the hysteresis is adjustable with a spindle-operated potentiometer. The cut-in point stays unnoticed from this. A potential free relay output as changeover contact is also at disposal for further analyses. Series GW2 has a short-circuit proof 24V optocoupler output for signal analyses or processing. It is loadable with 100mA. A LED indicates that the preset limit value has been reached.

Application:

Monitoring of standard signals, direct voltage, differential voltage

Order-No.:

GW3

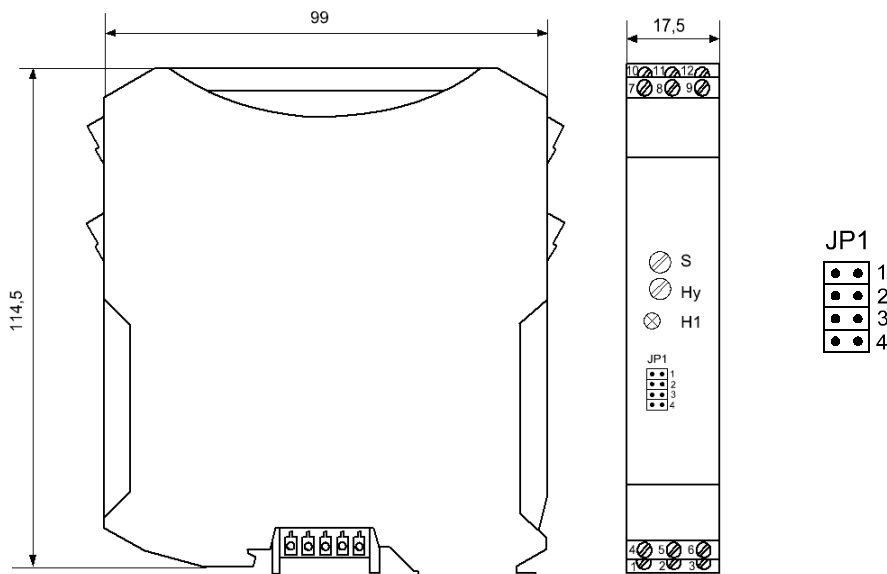
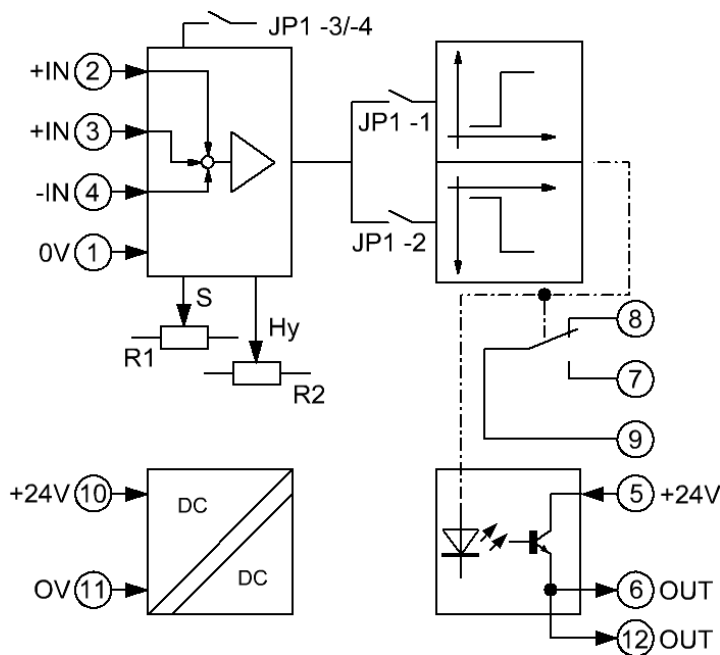
Jumper- setting JP1

- 1 closed: “+” switch
- 2 closed: “-“ switch
- 1 & -2 closed: bipolar

Rough adjustment of the operating point with a input difference of:

- 3 closed: 10...100%
- 4 closed: 1...10%
- 3 & -4 open: 0, 1...1%

The fine adjustment is effected via spindle-operated potentiometer S.



Technical Data

Supply:

Supply voltage : 18...30VDC
Current consumption : < 1,5VA

Inputs:

Current input : $\pm 20\mu\text{A} \dots 20\text{mA}$ / max. $\pm 50\text{mA}$ / 100Ω
Terminals: 2, 3, 4
Adjustment : 20 turn potentiometer

Outputs:

Hysteresis : 2...40%, with spindle-operated potentiometer Hy
Optocoupler : 24VDC / 100mA, short-circuit proof
Relay : 1 changeover, 230VAC / 3A / 24VDC / 1,5A
Delay < 20ms

Accuracy:

Input error : < 0, 1%
Symmetry error : < 0, 05%
Temperature coefficient: < 0,001 % / K

General data:

Operating temperature : 0...50°C
Storage temperature : -25...+85°C, condensation before putting into operation is not allowed
CE conformity : EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4
* during measurements small deviations are possible

Body:

Dimension : See drawing, 17,5mm adjoin body, 17,5x114,5x104,5mm (with terminals)
Material : PA / V0
Protection category : IP20
Connection : M3-screw-type terminal 0, 14 - 2,5mm², flexible or inflexible
Fixing : Snap-on mounting for norm rail TS35
Weight : 122g

Note on safety:



Disconnect the power supply before attempting to open the unit.

During the operation of this module it is possible that parts of the module, even there is extra-low voltage, (for example shunt measurement) are under dangerous voltage! Therefore a non-observance of this caution may cause damage of property or physical injury.

Only trained qualified personnel should install or operate the unit. Before installation the qualified personnel should read the documentation and should familiarize themselves with the unit.

If there is visible damage to the body of the unit it should be immediately replaced and not put into operation.



Please ensure that there is a sufficient prevention against electrostatic discharge during installation of the unit.

Installation Information:

Pay attention and make sure the unit is far away from mounted sources that may disturb the device such as magnetic coils, transformers, frequency converters etc.

Wiring advice:

Use only shielded cables. The shield is to be connected extensively to ground. Do not mix power- and signal-wires/cables in the same cable tray.

Limited warranty:

The LEG Industrie-Elektronik GmbH warranted that the product does not have any material or processing defects in a period of 5 years after date of delivery.

It is up to the choice of LEG to repair or to exchange an inoperative unit.

Subsequent damages or any claim for indemnification above the functionality of the unit are excluded.

This limited warranty is only valid if ...

1. the product was installed and put into operation according to the LEG operation documentation;
2. the technical configuration of the power supply was abided;
3. the product was not used for unintended purposes;
4. there were no unauthorized modifications or manipulations, misuse or repairs without previous agreement from LEG .

Our Terms of Trade are based on the "General Conditions for the supply of products and services of the Electrical and Electronics Industry" including the "Complementary Clause: Extended Reservation of Property" of the ZVEI e.V. (German Association of Electrical Manufacturers).

Miscellaneous:

We expressly reserve the right, without previous notice, to correct errors contained in any data of this information brochure, and to make alterations to the program and technical modifications.