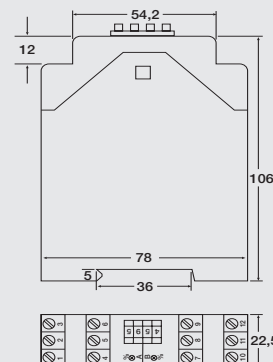




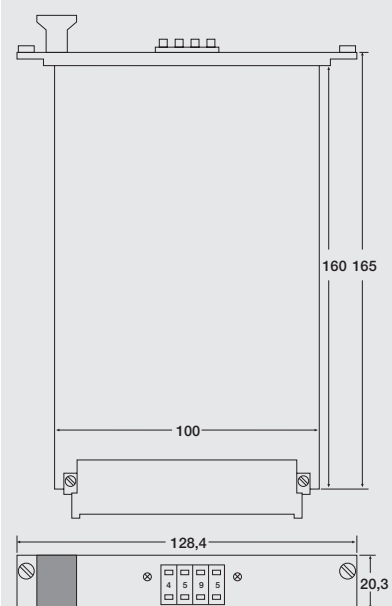
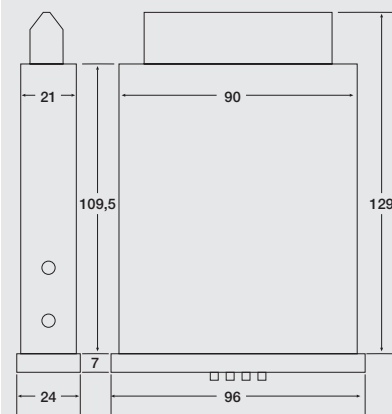
GW 2.0

GW 2.0

Limit Switch



door cut-out: 92 x 21,5 mm



- Features:**
- eurocard version,
  - top hat rail housing or
  - housing for door installation
  - input: 0...10V, 0(4)...20 mA, Pt 100
  - two relays with programmable and
  - potential free change-over contacts
  - both switchable separately or together
  - delay time and
  - switching hysteresis, adjustable
  - front side digital setting of limit value
  - via momentary contact switch scaled
  - from 0...99% in 1% steps each

signalling of switching condition by LED  
 six-channel eurocard version available  
 on request



Input:	Type:
0(4)...20 mA; 50 Ω and 0...10V DC; 100kΩ	GW 2.00 standard inputs
0...100 μA    0...50 mA $U_v = 1V$ 0...100 mV    0...150V DC $R_{in} = 10kΩ/V$	GW 2.03 special inputs
Pt 100 linear to resistance smallest interval of temperature 100°C	GW 2.01 special input Pt 100

**Output:**

Limit part:

2 alternating contacts both switchable separately mi./max. function

alternative: 2 alternating contacts both switchable together with adjustable interval

alternative: adjustable on-delay for both change-over contacts

Setting via integrated lateral momentary contact switch (see table)

Limit value adjustment:

front side momentary contact switch scaled from 0...99% in steps of 1% each

2 potential free change-over contacts:

contact duty: < 1000 VA (230V AC, ohmic load)

switching voltage range: 0,1...250V

switching current: max. 8A

operating time: 0,5 sec. (standard)

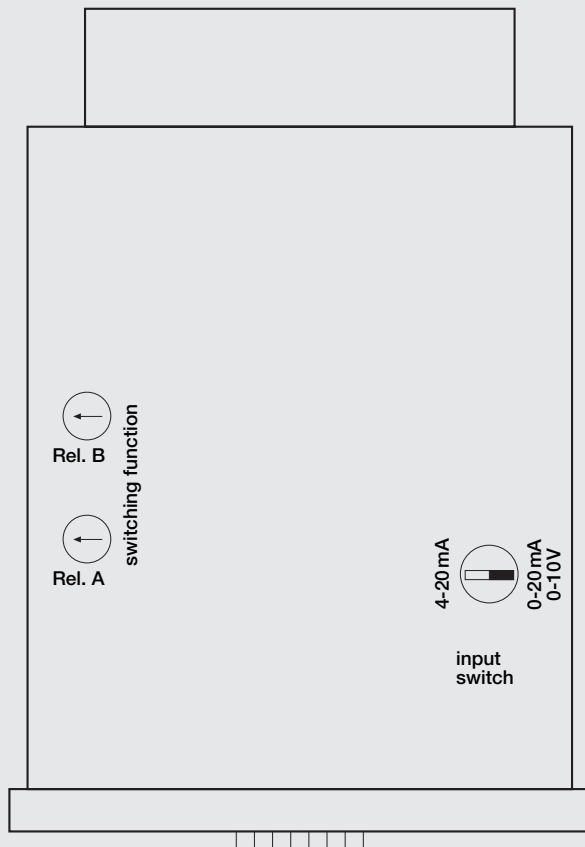
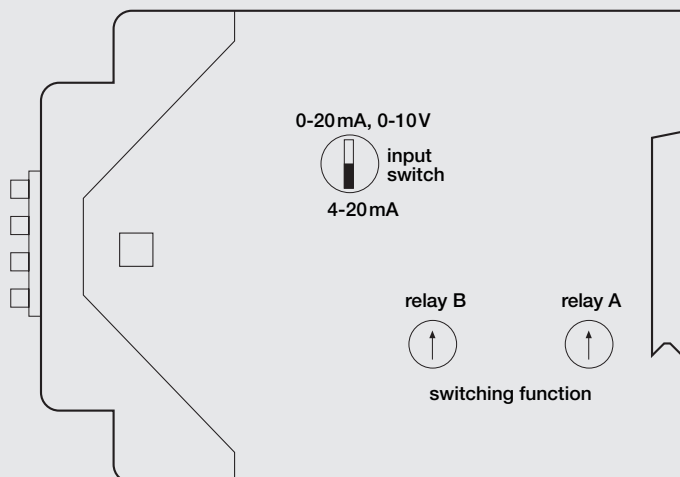
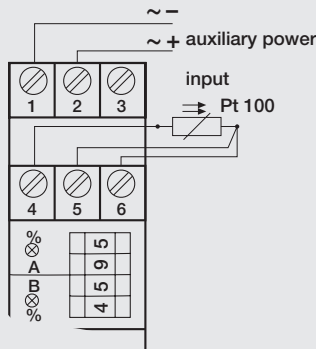
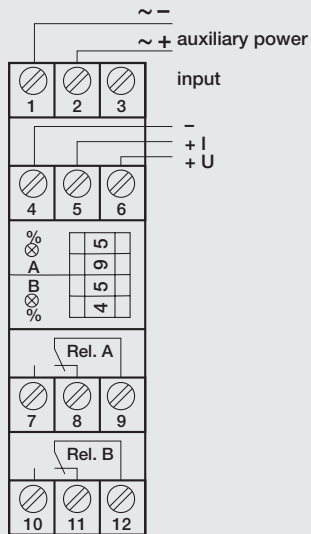
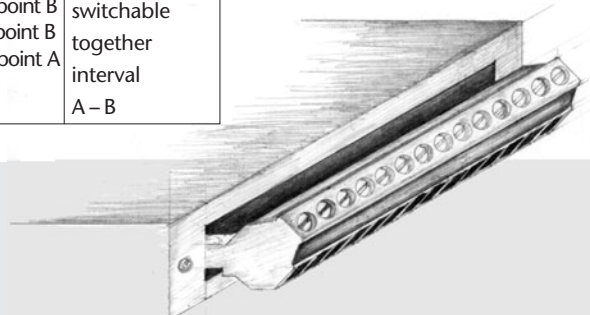
contact lifetime:

> 10<sup>6</sup> cycles

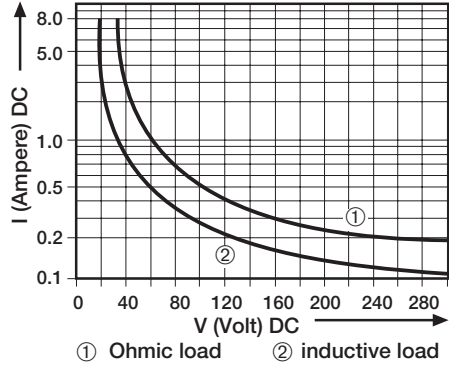
reproduction: > 0,2%

**Switching function rel. A + rel. B**

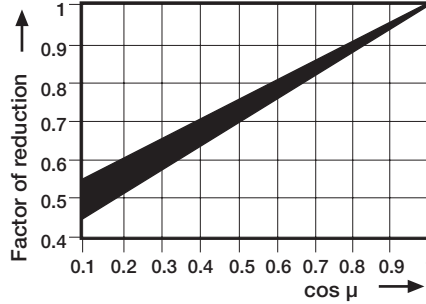
1	max.	relay on actual value > setpoint	relay A and B
2	min.	relay on actual value < setpoint	both switchable
5	max.	delayed 5 sec.(1)	separately
6	min.	delayed 5 sec.(2)	relay A and B
9	max.	relay on actual value > setpoint A relay off actual value < setpoint B	switchable together
A	min.	relay on actual value < setpoint B relay off actual value > setpoint A	interval
D	max.	delayed 5 sec.(9)	A - B
E	min.	delayed 5 sec.(A)	



**D.C. limit range**



**Reduction – contact lifetime**



**Auxiliary power:**

A.C. voltage: 230V (200...250 V) AC (50...60 Hz) consumption 10 mA  
 D.C. voltage: 24V DC (20...30 V) consumption 50 mA  
 influence of auxiliary power: < 0,05%  
 Other voltage on request

**Environmental conditions:**

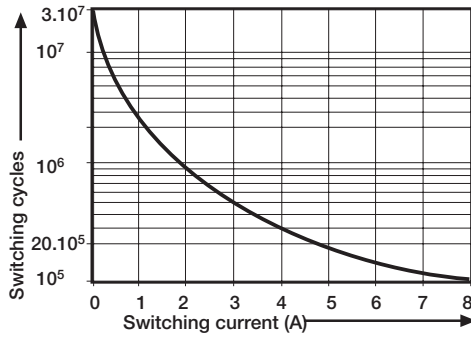
Storage temperature: -40...+70 °C  
 Operating temperature: 0...55 °C  
 Isolation voltage: since 10/97 > 4 kV  
 > 1 kV input/output  
 > 4 kV auxiliary voltage AC  
 > 500V auxiliary voltage DC  
 optional 4 kV DC

**Electromagnetic compatibility law**

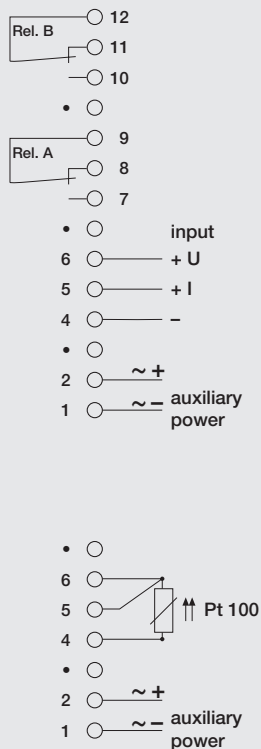
Germany in accordance with  
 EMC Directive: 2004/18/EG\*  
 Low-Voltage Directive: 2006/95/EG

\* minimum deviations possible during HF-radiation influence

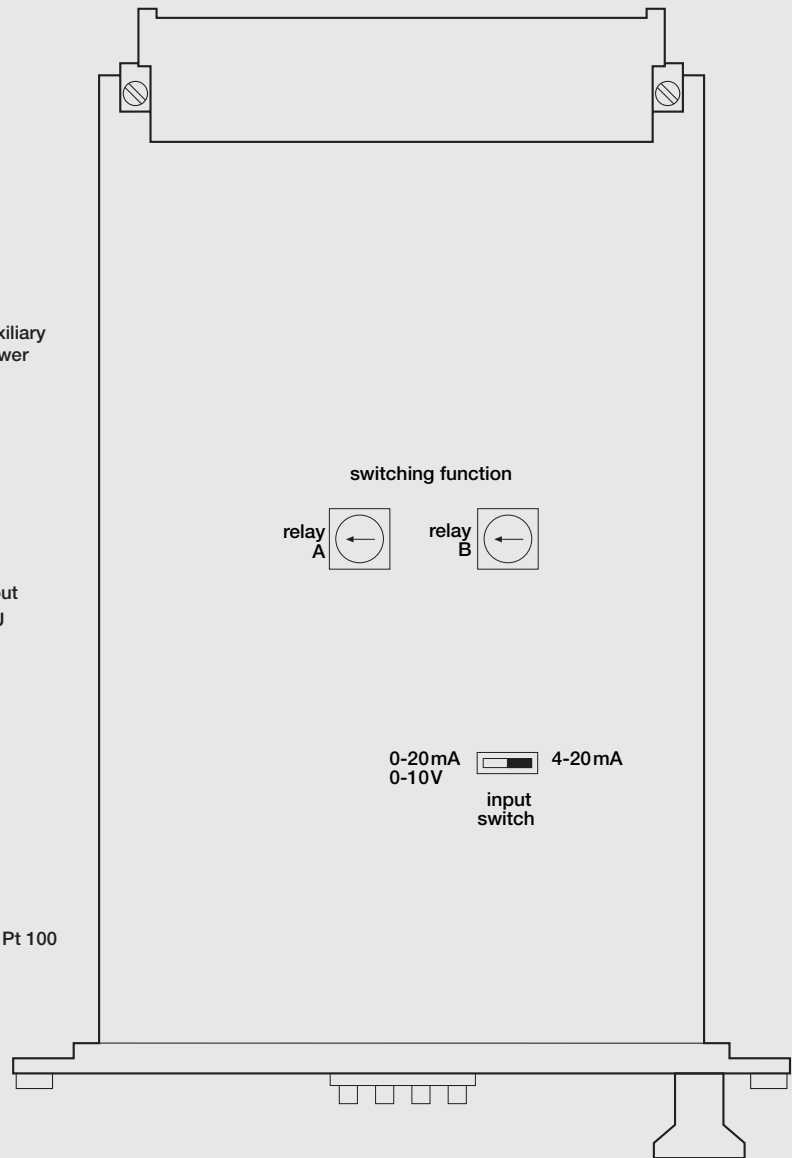
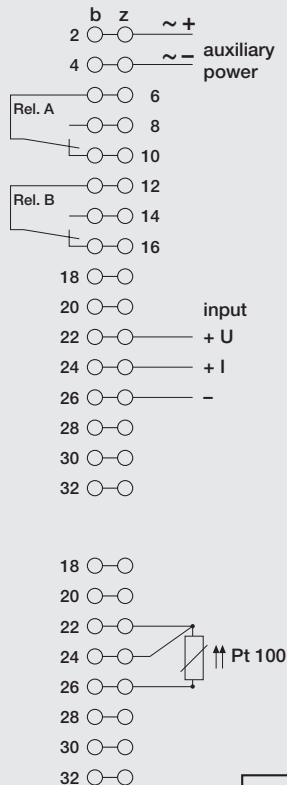
**250V AC Ohmic load**

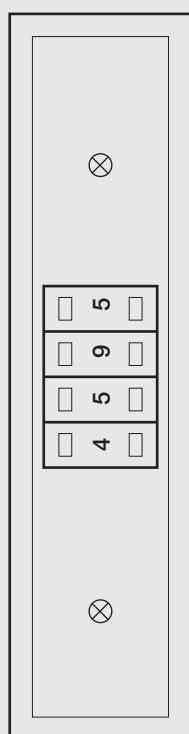
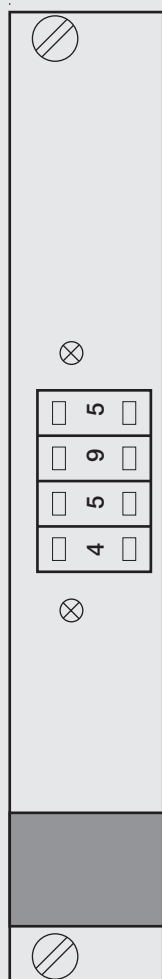


**Housing for door installation**



**Eurocard**





## Application:

The electronic Limit Switch GW 2.00 is mainly used for the controlling of limit values within process engineering systems. Multistage switchable input respectively output functions allow an easy and fast adjustment to all standard physical values which can be converted into electrical signals (e.g. temperature, pressure, filling levels, etc.). The control mechanism of GW 2.00 takes place by a measuring resistance (e.g. Pt 100) or by a standard current respectively voltage. The two potential free alternating output contacts can be switched separately or together as min./max. function (two-point stabilizer). The integrated interval switching function with a delay of about 5 sec. (standard) is especially designed for measuring values which fluctuate

considerably and where a temporary change of signal input should not start the relay. The adjustment of the limit values takes place via front side momentary contact switch within a scale of 0...99% in steps of 1% each. The usual calibration by multimeters etc. is not necessary. The front side LED indicates the status of the corresponding output relay. The Limit Switch 2.00 is used for the supervision of supply or control voltages. Application range includes also water processing for pump control of containers or level control (e.g. 20% = pump on / 80% = pump off), control of final signal of positioning elements or aggregates as well as control of temperature in production plants or storerooms.

## Function:

The values to be controlled can exist as direct current signal, voltage signal or resistance signal (alternating currents/alternating current voltages are available on request). After internal preparation the actual input signal will be compared with the digital adjusted limit value and the measuring signal will be indicated by a relay in case of exceeding or falling off. Two switching functions are realizable, because both relays have a potential free change-over contact each. A hysteresis e.g. can be reached

within a scale of 1...99% by front side setpoint adjustment "upper limit value" and "lower limit value". The status of the erected relay will be indicated by LED on front side. The alternating contacts for the outputs range from 0,1 V to 250 V with a load rating up to 100 VA/2 A.

**For safety reasons we recommend to mount the top hat rail housing with a distance of approx. 5 mm to each other..**

## Mounting details:

### Housing for top hat rail

Type of protection: IP 20 housing/IP 10 clamps  
 Rail-mounting fixed according to EN 50022-35 x 7,5 mm  
 Width: 22,5 mm  
 Weight : 140 g

### Eurocard version

Front panel: anodized aluminium 3HE/4TE (128,4/20,3mm)  
 Connector: 32 pole type F according to DIN 41612  
 Weight: 180 g

### Housing for door installation

Front panel: 96 x 24 mm  
 Mounting depth: 129 mm  
 Front plate: anodized aluminium, housing noryl  
 Electrical connections: removable screw terminal strips

By the 45°-angular design of the screw terminal strip stacking of several devices is possible.  
 Weight: 220 g

## Ordering information:

Type: **GW 2.00 E** eurocard standard  
**GW 2.00 G** housing for top hat rail standard  
**GW 2.00 T** housing for door installation standard  
**GW 2.03 E** eurocard special inputs  
**GW 2.03 G** housing for top hat rail special inputs  
**GW 2.03 T** housing for door installation special inputs  
 Input information: in clear text (e.g. 0...1 V)

**GW 2.01 E** eurocard special input Pt 100  
**GW 2.01 G** housing for top hat rail special input Pt 100  
**GW 2.01 T** housing for door installation special input Pt 100  
 Input information:  
 in clear text (e.g. -50...+50°C)  
 Auxiliary power: in clear text (e.g. 230V AC)