Threshold switch for temperature signals

DGW 2.01
DGW 2.08

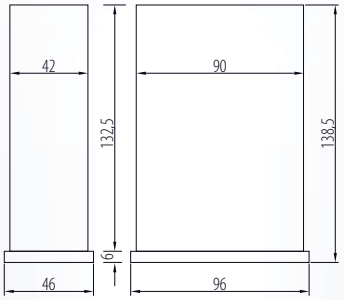
FEATURES

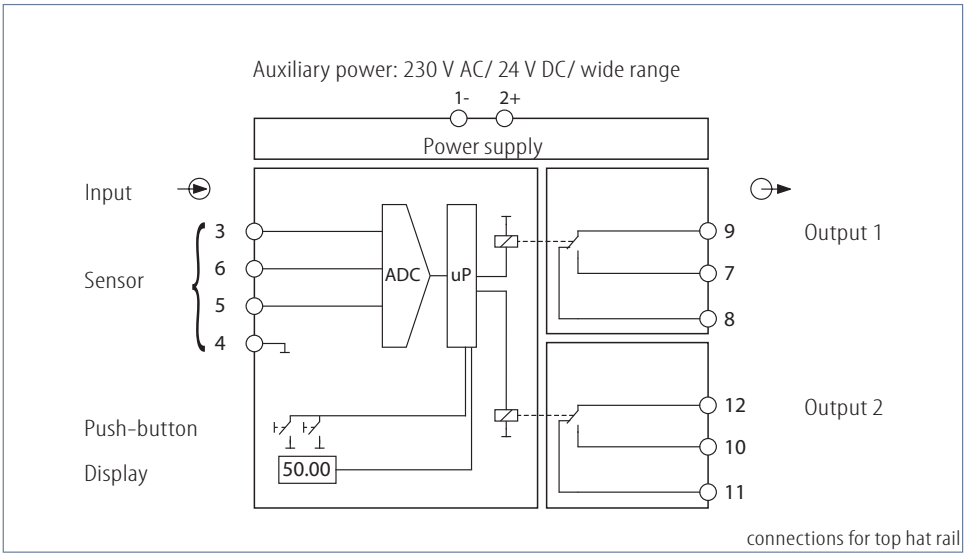
- *Input:*
  DGW 2.01: *PT 100, PT 1000*
  DGW 2.08: *thermocouples*
- *Output:*
  2 relays with change over contacts
  Relay 1: limit value function
  Relay 2: limit value or alarm function
- *Parameterization, operation and actual value over display*
- *Galvanic 4-way isolation of 4 kV*

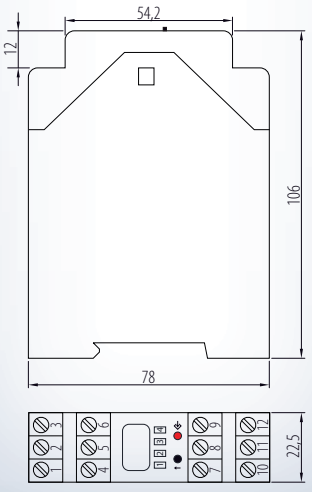
FUNCTION

Limit switches are used for the limit value control of standard inputs.
The DGW 2.01 has an input for PT 100, PT 1000. The DGW 2.08 for thermocouples. Both devices have 2 outputs. The parameterization is carried out by front side push-buttons and indicated by display. The 4-digit actual value indication is free scalable.

Up to 4 limiting values can be defined. The on- and off-delay times of the relay are adjustable separately. The status indication of the relays is displayed as bargraphs.
In case of using relay 2 as alarm relay the selected on- and off-delays are effective.







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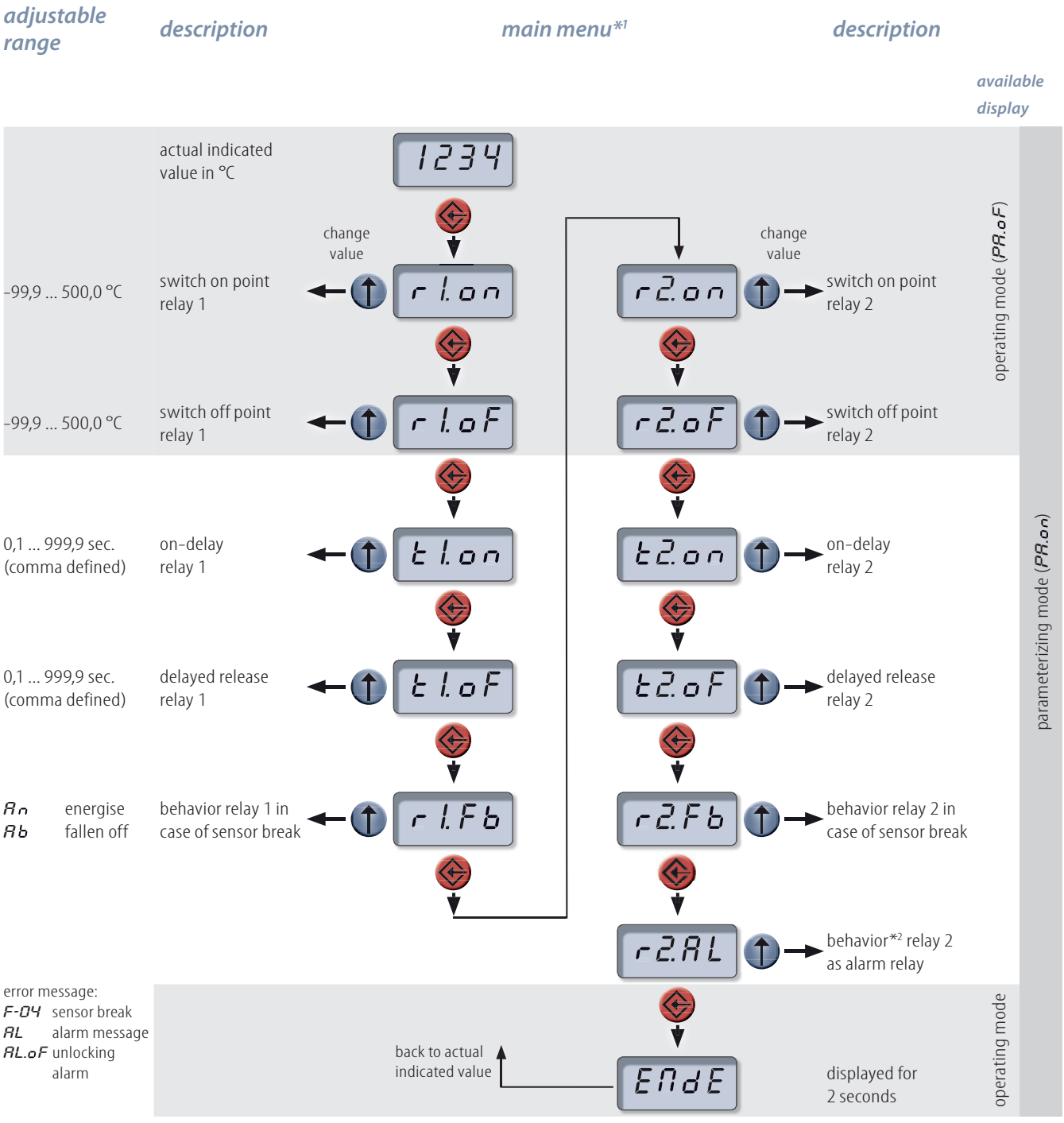
OVERVIEW-MENU



Legend: selection next

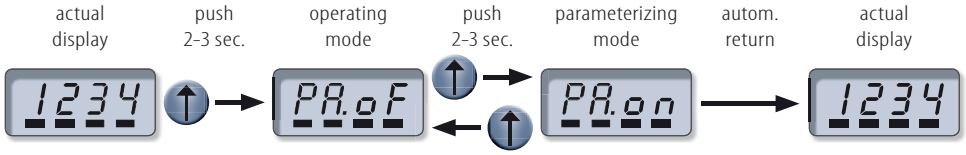
*1 There is a constant change between the actual indicated value and the dispay of the menu item.

*2 alarm relay: (window: acceptance region between switching and tripping point)

AUS	no alarm function, hysteresis
Ab.h	relay 2 fallen off outside acceptance region and locked
An.h	relay 2 energised outside acceptance region and locked
Ab	relay 2 fallen off outside acceptance region
An	relay 2 energised outside acceptance region

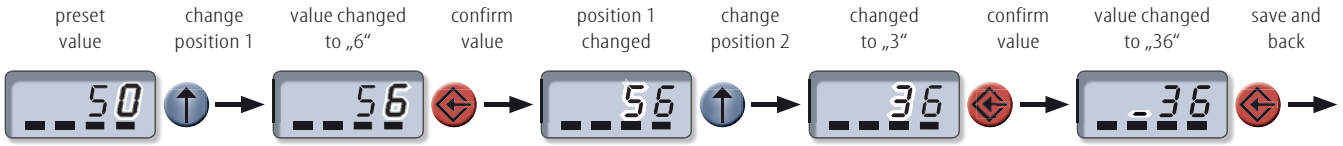
*3 menu point r1.Fb and r2.Fb at DGW 2.08 not available !

changeover parameterizing mode/ operating mode:

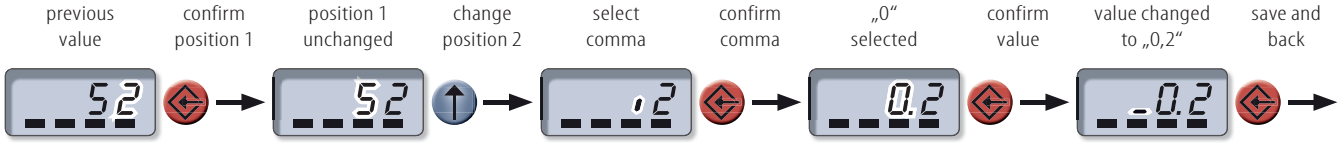


CHANGE VALUE *(select ↑ to change the menu item)*:

change value:

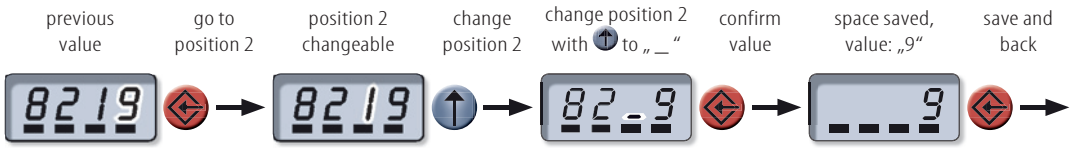


define decimal place:



delete decimal place:

delete positions:



Details of operation:

The displayed position gets changed with the push-button ↑. Values such as 0 to 9, minus -, comma , and space _ are possible.

Use the push-button ← to confirm the actual position and go to the next or return to the main menu after changing the last digit. Break-off possible by pushing ← longer.

Optional door installation:

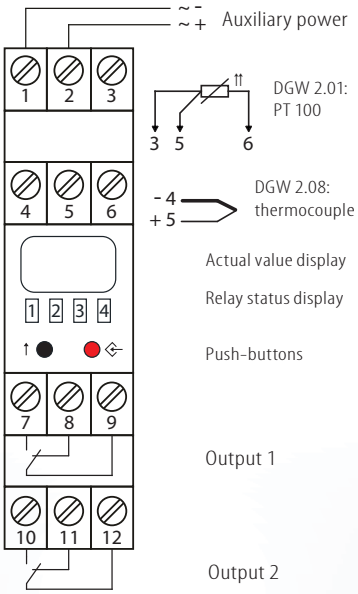
Push red push-button longer than 2 seconds: code requested. Enter default code to change parameters, otherwise display only.

Legend:

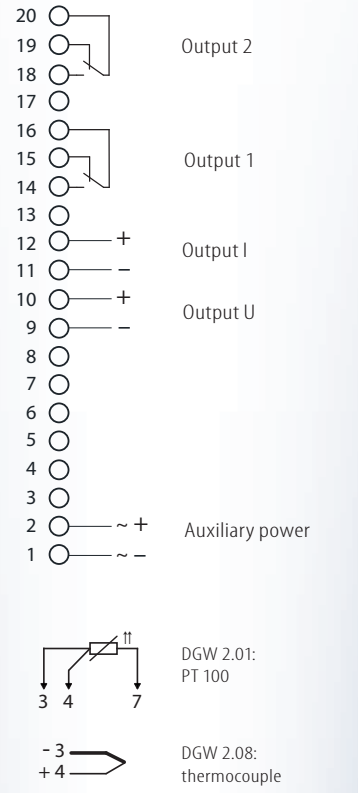
2 Digit on display blinks.
, Display of comma.
_ space
↑ selection
← confirm

DGW 2.01
DGW 2.08

DGW 2.01/2.08 G



DGW 2.01/2.08 T



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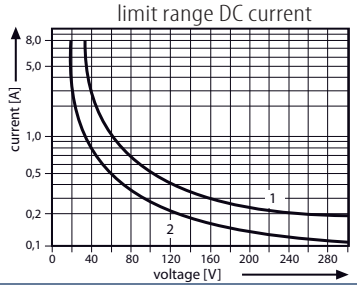
Input:

DGW 2.01:	PT 100, 2/3-wire optional PT 500, PT 1000	range -100...500 °C
DGW 2.08:	thermocouples internal compensation: error ± 0,05 %	
	type J -20...1200 °C	type K -50...1370 °C
	type L -50...900 °C	type N -50...1300 °C
	type U -20...600 °C	other types on request

Output:

2 relay outputs :	changer
max. switching current	8 A
max. switching voltage:	250 V AC
mechanical life cycle:	30 x 10^6 cycles
contact life cycle:	10^5 cycles
connection:	see connection diagram

limit range DC current



1 - resistive load
2 - inductive load

Only at DGW 2.01/ 2.08 T:	Output simultaneous:	
I: load-independent DC current:	0(4)...20 mA	input resistance approx. 680 Ω
U: load-independent DC voltage:	0(2)...10 V	input res. approx. ≥ 5 kΩ simultaneous operat.

Adjustment:

The functions are adjusted by 2 front side push-buttons and display. See page 03-10 and 03-11

Display:

4-digit LC-display with 2 bargraphs to indicate the relay status of output 1 and 2.

Environmental conditions:

Storage temperature:	-40...+70 °C
Operating temperature:	0...55 °C
Isolation voltage:	4 kV eff. 1 sec. input-output-auxiliary voltage

Auxiliary power:

Housing for top hat rail:

230 V AC:	230 V AC approx. 10 mA
24 V UC:	20...45 V AC 10...70 V DC approx. 50 mA

Door installation:

24 V UC:	20...30 V AC/ DC approx. 50 mA
Wide range:	20...253 V AC/ DC approx. 10 mA

Characteristics of transmission:

Linearity error:	< 0,03 % of final val.
Temperature error:	< 30 ppm/ K

Directive:

EMV Directive:	2004/108/EG*
Low Voltage Directive:	2006/95/EG

*minimum deviations possible during HF-radiation influence

Mounting details:

Housing for top hat rail

Type of protection:	IP 40 housing IP 10 clamps
Mounting rail fixed according to	EN 50022-35 x 6,2 mm
Width:	22,5 mm
Weight:	250 g
Material:	Polyamide PA
Flammability class:	V0 (UL94)
Approval:	CE
Connection:	screw clamps ≤ 2 x 2,5 mm²

Door installation:

Type of protection:	IP 54 Front
Front frame:	96 x 48 mm
Installation depth:	138,5 mm
Weight:	290 g
Material:	PC/ ABS
Flammability class:	V0 (UL94)
Approval:	CE
Connection:	pluggable screw clamps 0,14...1,5 mm²

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

Ordering information:

Please specify signals in clear text:
e.g. PT 100, 0...20 mA

Type:			
	DGW 2.0x G	230 V AC	housing
	DGW 2.0x GDC	24 V UC	housing
	DGW 2.0x TUC	24 V UC	door inst.
	DGW 2.0x TW	wide range	door inst.

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