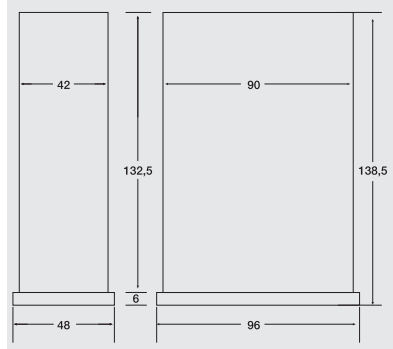


# DGW 2.0

# DGW 2.0 Thermostatic regulator

### Features:

- housing for door installation or top hat rail housing
- universal power supply, wide range 20...253 V AC/DC
- input signals Pt 100, Pt 1000, thermocouples
- 4 threshold values
- 2 relays with parameterizable, potential free change-over contacts
- on- and off delay per relay, parameterizable



Analog output, galvanic isolation between measuring and supply circuit, status indication, function thermostatic regulator, 4 digit actual value indication

### Application:

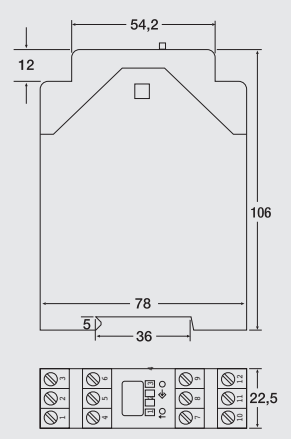
The application range includes threshold and temperature control for power stations, engines, food industry, textile finishing, large-scale installations, plastics processing industry,

steel plants and steel processing industry, water treatment, chemical industry as well as mechanical engineering and construction.

### Function:

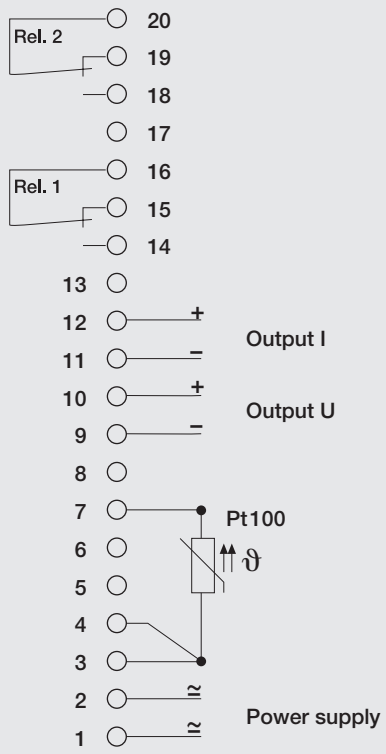
The switching points and further parameters are adjusted by two front side multifunction switches and indicated via integrated display. The on- and off delay times of the 4 threshold values are adjustable. The status indication of the relays is displayed as bar graphs, in version for door installation as LED.

Additional function thermostatic regulator and limiter:  
in case of using the relay as alarm relay the selected on- and off delays are effective. In case of interrupting the voltage supply the existing interlock in relay 2 is continued after voltage breakdown. The other functions e.g. on- and off delay will be reset after voltage breakdown. In case of sensor break the relay will be set in the predetermined position.

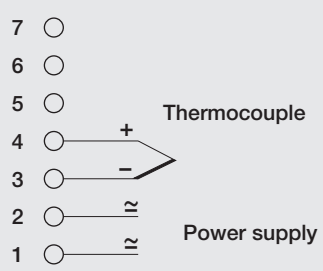




**DGW 2.01 T**

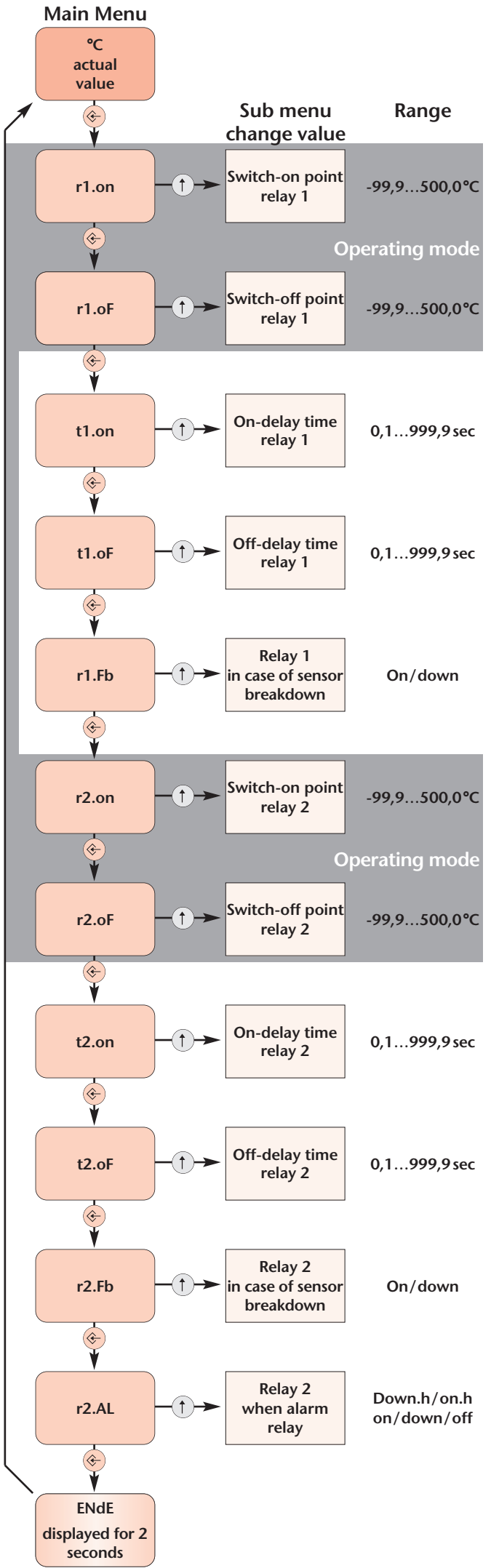


**DGW 2.08 T**

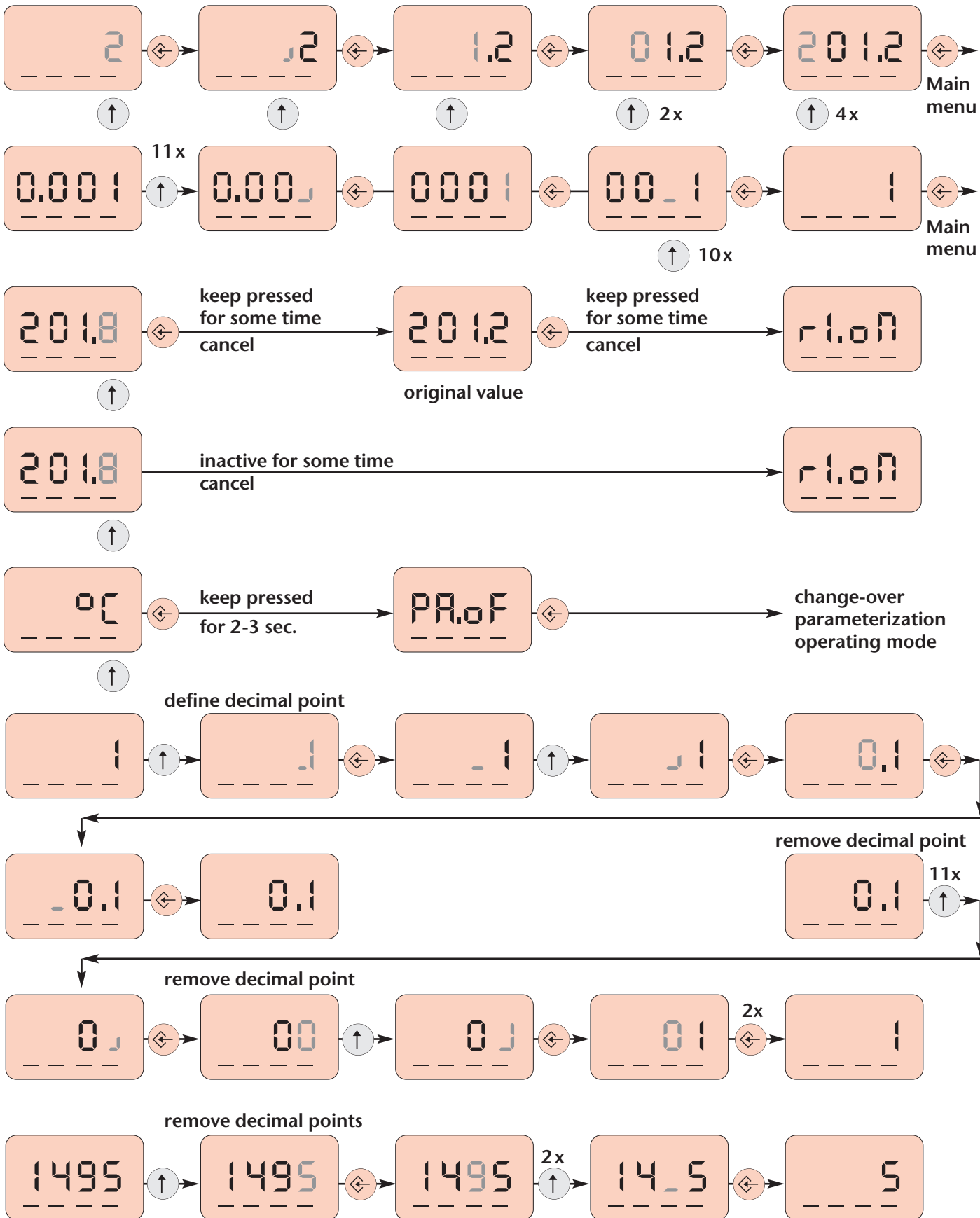


- Error messages:
- F-01 storage error
  - F-02 adjustment error
  - F-03 calibration error
  - F-04 sensor break
  - AL alarm message
  - AL.oF unlocking alarm

**MENU CONTROL**



# MENU GUIDANCE „CHANGE OF VALUES”



**Please note:**

After about 1 minute without operating the display shows the actual value in degrees C. The relay control in case of sensor break can be set rising or falling off. The relay 2 is for the alarm function, menu point r2.AL:  
 AUS no alarm function, hysteresis function  
 Ab.h relay 2 is falling off and locked  
 An.h relay 2 is rising and locked  
 Ab relay 2 is falling off  
 An relay 2 is rising

The alarm function has priority over sensor break setting relay 2. Unlocking is made by red key placed on the device. After keeping pressed for approx. 2 sec. the alarm is reset. Confirmation by AL.oF shown briefly on display.  
 Menu selection:  
 Change-over of parameterization mode to simple operating mode via grey arrow key.  
 PA.on parameterization  
 PA.oF operating mode

Press grey change-over key for approx. 2 sec. (only possible when actual value indication or parameterization finished).  
**Legend:**  
 grey lined numbers : flashing on display  
 J : decimal points  
 - : blank  
 ↑ : selection  
 ← : setting



**Input:**

Range: -100...500°C  
 Resolution: 0.1°C/Pt 100  
 Input: Pt 100, 2/3 wire.  
 optional Pt 500, Pt 1000  
 Thermocouples:  
 Range: 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

Further types on request.  
 Calibration error: < 0.05% of measuring range  
 Linearity error, thermocouples:  
 Type J: < 0,15% ± 1 digit  
 K: < 0,05% ± 1 digit  
 L: < 0,08% ± 1 digit  
 N: < 0,03% ± 1 digit  
 Internal compensation (-50...100°C):  
 Compensation error: ± 0,05%

**Electromagnetic compatibility law**

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

**Output:**

Contact: 2 separately switching  
 change-over contacts  
 max. switching current: 8A (ohmic load)  
 max. switching voltage: 250V AC  
 Analog output:  
 I: impressed direct current = 4...20mA  
 permissible load ≤ 680Ω  
 corresponds at Pt 100 0...400°C  
 otherwise total range  
 Linearity error: ca. 0.1%/Pt 100  
 Temperature error: approx. < 0.01%/°C  
 ambient temperature drift

**Auxiliary power:**

Wide range power: 20...253V AC/DC  
 (50...60Hz)  
 power consumption 4VA  
 First voltage range: 24V UC (20...30V)  
 power consumption approx. 2VA  
 Version housing for top hat rail:  
 A.C. voltage: 230V ± 10%  
 Wide range power DC: 20...45V AC (UC)/10...70V DC  
 On voltage interruption the on-delay time has to be  
 considered; values from the temporary storage get lost.  
 Data storage: non-volatile EEPROM

**Environmental conditions:**

Storage temperature: -40...+70°C  
 Operating temperature: 0...55°C  
 Isolation voltage: > 4kV input-output  
 > 500V auxiliary voltage AC

**Mounting details:**

**Top hat rail housing**  
 Type of protection: IP 40 housing/IP 10 clamps  
 Width: 22.5 mm  
 Rail-housing fixed according to  
 EN 50022-35 x 7.5mm  
 Weight : 210 g  
**For safety reasons we recommend to mount  
 the top hat rail housing with a distance of  
 approx. 5 mm to each other.**

**Housing for door version**

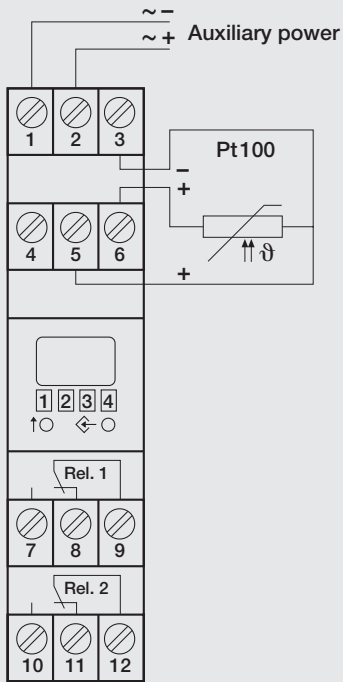
Protection type: IP 54 front  
 Front frame: 96 x 48 mm  
 Installation depth: 138.5 mm  
 Housing material: PC/ABS self extinguishing  
 according to UL94V-0  
 Electrical connections via removable screw  
 terminal strips  
 Weight: 290g

**Ordering information:**

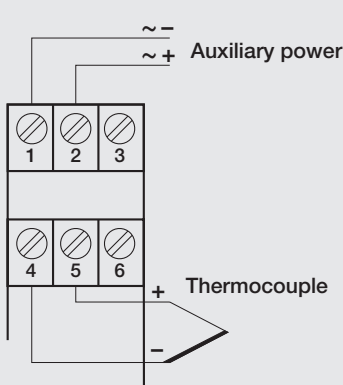
Type: **DGW 2.01 G** Housing for top hat rail  
 Input signal Pt 100  
 Optional Pt 500, Pt 1000,  
**DGW 2.01 T** Housing for door version  
 Input signal Pt 100  
 Optional Pt 500, Pt 1000,  
 Analog output  
**DGW 2.08 G** Housing for top hat rail  
 Input signal thermo  
**DGW 2.08 T** Housing for door version  
 Thermocouple  
 Optional analog output  
 Power supply: **W** wide range  
**UC** first voltage range  
**230V** 230V AC  
**DC** wide range first  
 voltage range

Input information: in clear text (e.g. 0...10V)  
 Auxiliary power: in clear text (e.g. 230V AC)  
 Optional: locking function for the door installation  
 version.

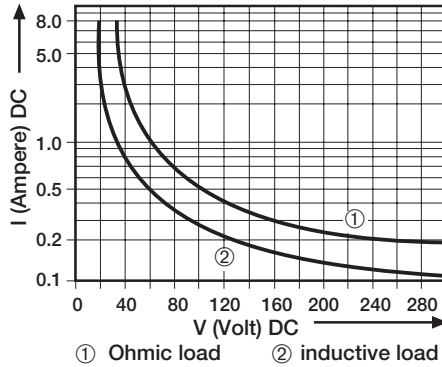
**DGW 2.01 G**



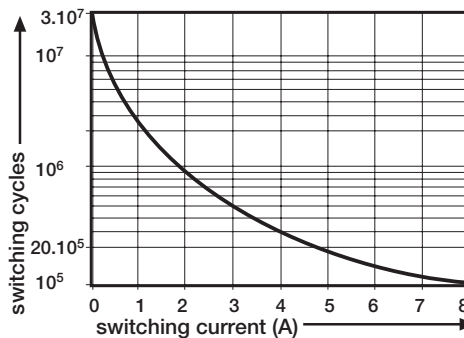
**DGW 2.08 G**



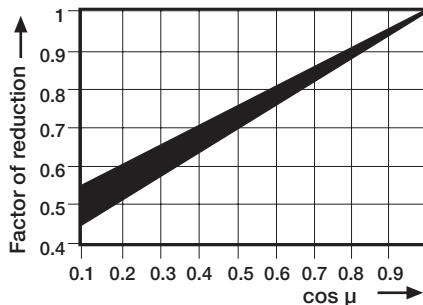
**D.C. limit range**



**250V AC Ohmic load**



**Reduction – contact lifetime**



\* minimum deviations possible during HF-radiation influence