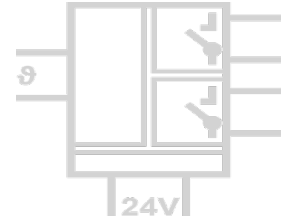


# Temperature Alarm Unit DG 3600

Control and Monitor Pt-Temperature Signals



The Alarm Unit DG 3600 is used to monitor limit values and regulate simple automation processes in temperature measuring applications with Pt-Sensors.

High reliability and Protective Separation are essential characteristics that contribute to fault-free equipment operation.

Two switch channels can be separately configured. The switch point and the switch hysteresis can each be adjusted by means of their own 12-turn potentiometer located on the unit's front panel. The switch state is indicated by a yellow LED.

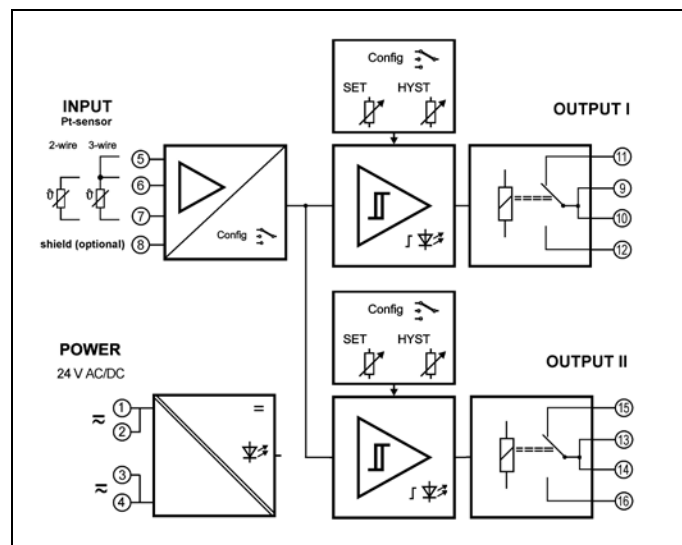
The direction of effect and the mode of operation can be switched by means of DIP switch settings. Both switch outputs can be set up as either MIN or MAX alarms. The relay contacts switch high power loads either as N.O. or N.C. contacts.

Protective Separation and the 24 V AC/DC power supply make the DG 3600 universally applicable for all measurement and industrial applications, as well as for building automation.

- **Easy selection of operating mode**  
MIN / MAX alarm switch selectable, switch point and hysteresis adjustable on front panel
- **Relay with high power handling**  
or wearless optocoupler switching output
- **True 4-port separation**  
Protection against erroneous measurements due to parasitic voltages or ground loops
- **Switch state indicated by LED**  
Easy to adjust the set point and hysteresis
- **Protective Separation acc. to EN 50178**  
Protects service personnel and downstream devices against impermissibly high voltage
- **High reliability and long-term stability**  
No maintenance costs
- **Unlimited use with 24 V AC/DC power supply**  
Universally applicable for all measurement and industrial applications
- **5 Years Warrant**  
Defects occurring within 5 years from delivery date shall be remedied free of charge at our plant (carriage and insurance paid by sender)



## Block diagram



## Technical Data

Input						
Sensor Input		Pt100	Pt200	Pt500	Pt1000	switchable
Sensor current		1 mA	0,5 mA	0,2 mA	0,1 mA	
Sensor connection		3-wire connection / 2-wire connection, switchable				
Wire resistor		< 10 Ω per wire				
Temperature measuring range	Zero	-100 °C	-50 °C	0 °C	+50 °C	switchable
	Span	100 K	200 K	300 K	400 K	switchable
Set point range		0 ... 100 % of input range with 12-turn potentiometer, MIN/MAX-Alarm switchable				
Hysteresis		0 ... 60 % of final value with 12-turn potentiometer				

Output		
DG 3600: Relay	Contact type	2 SPDT relays, mode of operation switchable
	Switching capability AC max.	250 V / 6 A      1500 VA
	Switching capability DC max.	250 V / 0,2 A      115 V / 0,3 A      30 V / 6 A
		Recommended minimum load 300 mW / 5 V / 5 mA
DG 3680: Optocoupler	Contact type	2 optocoupler transistor switches, mode of operation switchable
	Switching capability	30 V DC, max. 50 mA
Switch state indicator		Yellow LED
Response time		Approx. 20 ms

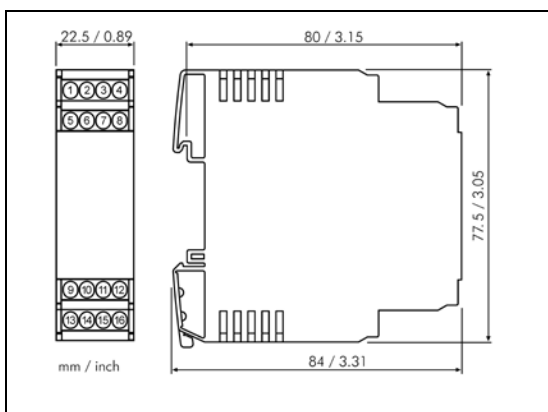
General Data		
Set point error	< 0.2 % full scale	
Temperature coefficient <sup>1)</sup>	< 150 ppm/K	
Test voltage	4 kV AC, 50 Hz, 1 min. input against power supply against both switching outputs 2.5 kV AC, 50 Hz, 1 min. switching output I against switching output II	
Working voltage (Basic Insulation) <sup>2)</sup>	600 V AC/DC for overvoltage category III and pollution degree 2 acc. to EN 50178 between input, power supply and switching outputs. Up to 300 V AC/D between both switching outputs	
Protection against electrical shock <sup>2)</sup>	Protective separation according to EN 50178 by reinforced insulation up to 300 V AC/DC for overvoltage category II and pollution degree 2 between input, power supply and switching outputs	
Power supply	24 V AC/DC, ± 15 %      AC 48 ... 62 Hz, approx. 2 VA DC approx. 1 W	
Ambient temperature	Operation	- 20 to + 60 °C      (- 4 to + 140 °F)
	Transport and storage	- 35 to + 85 °C      (- 31 to + 185 °F)
EMC <sup>3)</sup>	EN 61326 -1	
Construction	22.5 mm (0.89") housing, protection class IP 20, mounting on 35 mm DIN rail acc. to EN 60715	
Weight	Approx. 100 g	

1) Average TC in specified operating temperature range

2) For applications with high working voltages, ensure there is sufficient spacing or isolation from neighboring devices and protection against electric shocks.

3) Minor deviations possible during interference

## Dimensions



Subject to change!

## Product line

Device	Order No.
Temperature Alarm Unit with relay contacts	DG 3600
Temperature Alarm Unit with transistor switches	DG 3680