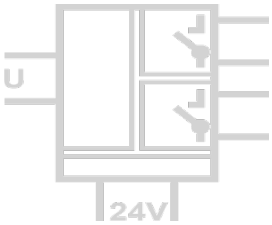
Voltage Measuring Contactor DG 3400

Monitoring of AC/DC Voltage



The Voltage Measuring Contactor DG 3400 is used to monitor limit values of AC/DC voltages.

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

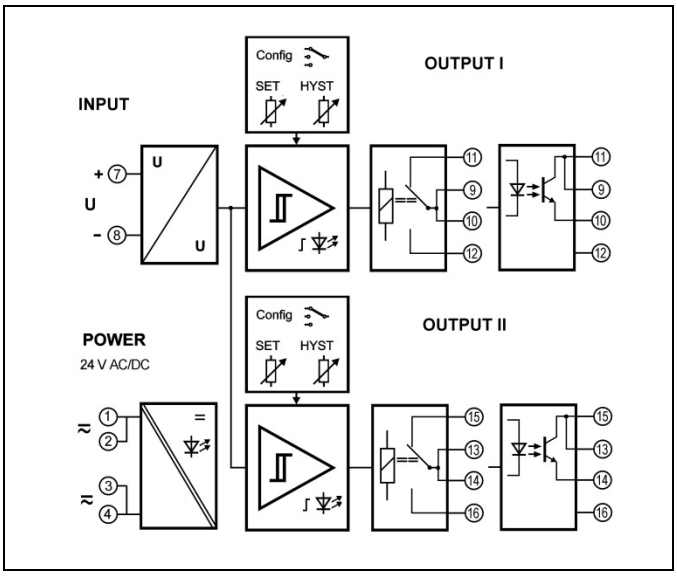
Two switch channels can be separately configured. The switch point and the switch hysteresis can each be adjusted by means of their own 12-turn potentiometer located on the unit's front panel. The switch state is indicated by a yellow LED.

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 3400 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 Warranty**
  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

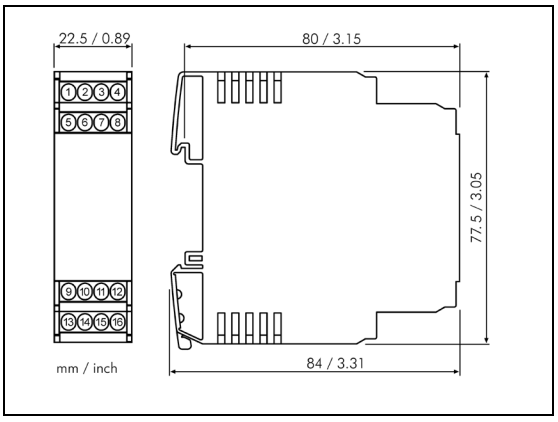


Technical Data

Input		
Input signal		Measuring ranges: 24 V, 48 V, 100 V, 120 V, 250 V, 500 V switchable Unipolar, bipolar or sinusoidal alternating current voltages, f = 10 ... 500 Hz
Input resistance		1 MΩ
Overload		Max. 600 V continuous
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 3400:	Contact type	2 SPDT relays, mode of operation switchable
Relay	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 3480:	Contact type	2 optocoupler transistor switches, mode of operation switchable
Optocoupler	Switching capability	30 V DC, max. 50 mA
Switch state indicator		Yellow LED
Response time		DC Input: approx. 20 ms AC Input: approx. 500 ms
General Data		
Set point error		< 0.2 % full scale
Temperature coefficient[1)]		< 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)[2)]		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[2)]		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[3)]		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 related to full scale value in specified operating temperature range, reference temperature 23 °C
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.
Voltage Measuring Contactor with relay contacts	DG 3400
Voltage Measuring Contactor with transistor switches	DG 3480