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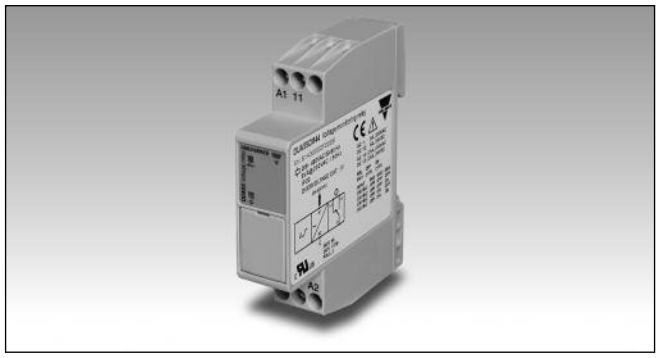
Monitoring Relays
1-Phase Voltage selection
Type DUA55



- **Detects if voltage is at the desired level (± 10% or ±15%)**
- **Measures its own power supply**
- **Wide power supply range: 208 to 480 VAC (±15%)**
- **Output: 5 A SPDT relay normally energized**
- **For mounting on DIN-rail in accordance with DIN/EN 50 022**
- **17.5 mm DIN-rail housing (DIN 43880)**
- **LED indication for relay and power supply ON**

Product Description

1-Phase relay for detection of incorrect mains voltage. This unit allows to stop incorrect power supply voltage when different from the desired one. Power supply range from 208 to 480 VAC plus selection of the different possible nominal voltages. For mounting on DIN-rail. Housing 17.5 mm wide suitable both for back and front panel mounting.

Ordering Key

DUA 55 C M44

- **Housing**
- **Function**
- **Type**
- **Item number**
- **Output**
- **Power supply**

Type Selection

Mounting	Output	Supply: 208 to 480 VAC
DIN-rail	SPDT	**DUA 55 C M44**

Input Specifications

Input	
L, N	Terminals A1, A2 Measures its own supply
Measuring range	177 to 550 VAC

Supply Specifications

Power supply	Overvoltage cat. III (IEC 60664, IEC 60038)
Rated operational voltage through terminals: A1, A2	208 to 480 VAC ± 15%, 45 to 65 Hz
Rated operational power	6 VA @ 230 VAC, 50 Hz

Output Specifications

Output		SPDT relay, N.E.
Rated insulation voltage		250 VAC
Contact ratings ($AgSnO_2$)		µ
Resistive loads	AC 1	5 A @ 250 VAC
	DC 12	5 A @ 24 VDC
Small inductive loads	AC 15	2.5 A @ 250 VAC
	DC 13	2.5 A @ 24 VDC
Mechanical life		≥ 30 x 10^6 operations
Electrical life		≥ 10^5 operations (at 8 A, 250 V, cos φ = 1)
Operating frequency		≤ 7200 operations/h
Dielectric strength		
Dielectric voltage		≥ 2 kVAC (rms)
Rated impulse withstand volt.		4 kV (1.2/50 µs)

General Specifications

Reaction time	
Alarm ON delay	< 100 ms
Alarm OFF delay	< 300 ms
Accuracy	(15 min warm-up time)
Temperature drift	± 1000 ppm/°C
Repeatability	± 0.5% on full scale
Indication for	
Power supply ON	LED, green
Relay ON	LED, yellow

Environment	
Degree of protection	IP 20
Pollution degree	2
Operating temperature	
@ Max. voltage, 50 Hz	-20 to +60°C, R.H. < 95%
@ Max. voltage, 60 Hz	-20 to +50°C, R.H. < 95%
Storage temperature	-30 to +80°C, R.H. < 95%
Housing	
Dimensions	17.5 x 81 x 67.2 mm
Material	PA66 or Noryl
Weight	Approx. 80 g

General Specifications (cont.)

Screw terminals	
Tightening torque	Max. 0.5 Nm acc. to IEC 60947
Product standard	EN 60255-6
Approvals	UL, CSA
CE Marking	L.V. Directive 2006/95/EC EMC Directive 2004/108/EC
EMC	
Immunity	According to EN 60255-26 According to EN 61000-6-2
Emissions	According to EN 60255-26 According to EN 61000-6-3

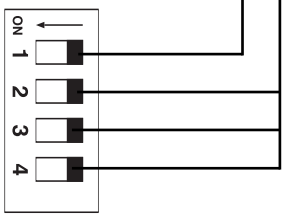
Mode of Operation

DUA55 monitors its own 1- phase power supply.
The relay operates when the monitored voltage is within the desired tolerance (± 10% or ± 15%).

Example
The relay monitors that the power supply is the correct one for the required equipment.

Range setting

Select the proper nominal voltage level using DIP-switches as shown below.

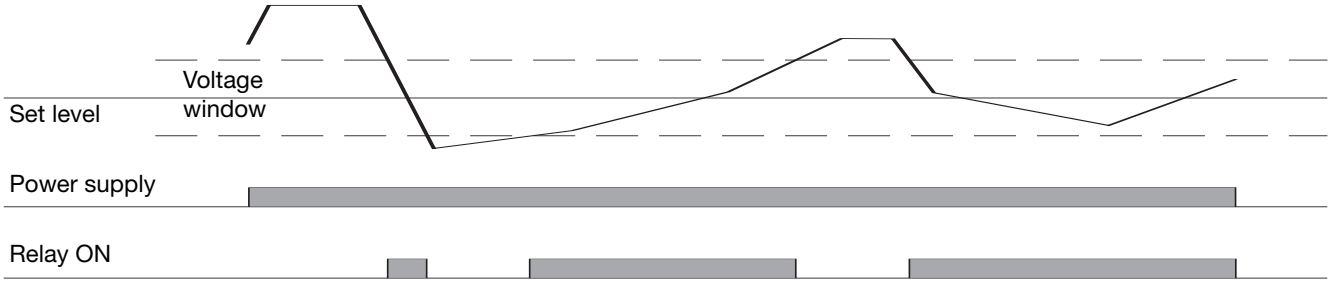


Voltage window
ON: ± 15 %
OFF: ± 10 %

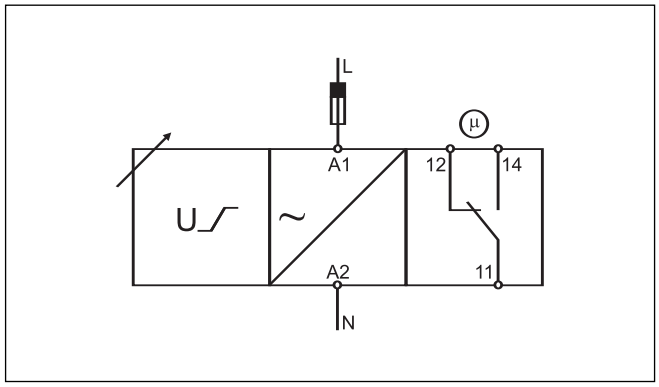
Measuring range

	SW2	SW3	SW4
208 VAC	OFF	OFF	OFF
220 VAC	OFF	OFF	ON
230 VAC	OFF	ON	OFF
240 VAC	OFF	ON	ON

Operation Diagram



Wiring Diagram



Dimensions