

Monitoring Relays DC Under Voltage Type DUA52

CARLO GAVAZZI



- DC undervoltage monitoring relay
- Measuring if power supply is below the set level
- Measures its own power supply
- Measuring ranges: 8 - 28 V DC and 38 - 58 V DC
- Adjustable hysteresis: 4 to 50%
- Output: 5 A SPDT NE relay
- For mounting on DIN-rail in accordance with DIN/EN 50 022
- 17.5 mm housing (DIN 43880)
- LED indication for relay and power supply ON

Product Description

DUA52 is a voltage monitoring relay that measure its own power supply. The measuring ranges are 8-28 VDC and 38-58 VDC. It has separate potentiometers for setpoint

and hysteresis. Typical applications are monitoring of backup batteries, batteries on diesel generator sets and the like.

Ordering Key

DUA 52 C 724

Housing _____
Function _____
Type _____
Item number _____
Output _____
Power supply _____

Type Selection

Mounting	Output	Measuring range	Supply : 12/24 VDC	Supply: 48 VDC
DIN-rail	SPDT	8 to 28 VDC	DUA 52 C 724	
DIN-rail	SPDT	38 to 58 VDC		DUA 52 C 748

Input Specifications

Input (voltage level)	Terminals A1, A2 Measures its own power supply
Measuring ranges	Level
Direct	38 to 58 VDC
48 VDC	8 to 28 VDC
12 to 24 VDC	

Output Specifications

Output	SPDT relay
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)

Supply Specifications

Power supply	Overvoltage cat. III (IEC 60664, IEC 60038)
Rated operational voltage through terminals:	
A1 and A2	724 8 to 28 VDC
	748 38 to 58 VDC
Dielectric voltage	None
Dielectric voltage	
Supply to output	2 kV
Rated operational power	1.5 W



General Specifications

Power ON delay	< 200 ms
Reaction time	(input signal variation from -20% to +20% or from +20% to -20% of set value)
Alarm ON delay	< 200 ms
Alarm OFF delay	< 200 ms
Accuracy	(15 min warm-up time)
Temperature drift	± 1000 ppm/°C
Alarm delay	± 10% on set value ± 50 ms
Repeatability	± 0.5% on full-scale
Indication for	
Power supply ON	LED, green
Output relay ON	LED, yellow
Environment	
Degree of protection	IP 20
Pollution degree	3
Operating temperature	-20 to 60°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. 75 g
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

DUA52 monitors the DC value of its own power supply. is rising above the setpoint plus hysteresis, and is deenergized when the measured voltage drops below the setpoint value.

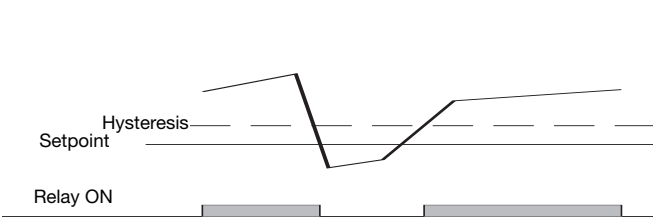
The output is energized when the measured voltage

Range and Level Setting

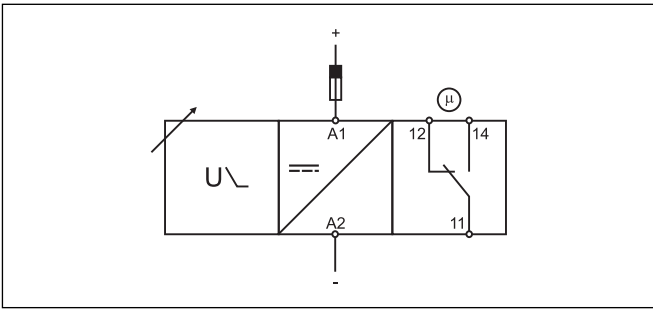
Selection of level: Lower knob: Setting of hysteresis on relative scale

Centre knob: Setting of level on absolute scale.

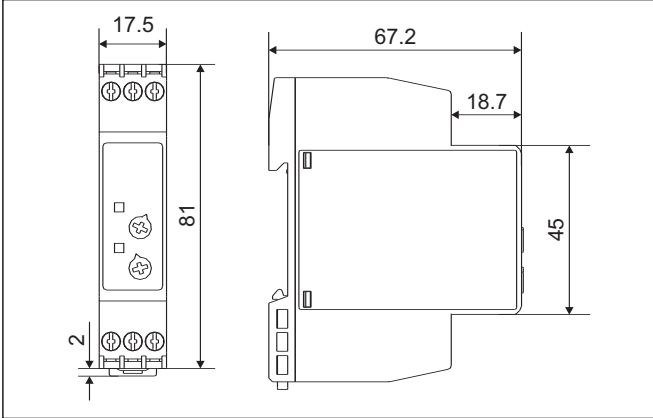
Operation Diagram



Wiring Diagram



Dimensions



Mouser Electronics

Authorized Distributor

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