Monitoring Relays DC Under Voltage Type DUA52



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.

- DC undervoltage monitoring relay
- · Measuring if power supply is below the set level

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- 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

Supply: 48 VDC

DUA 52 C 748

Type Selection

Mounting	Output	Measuring range	
DIN-rail	SPDT	8 to 28 VDC	
DIN-rail	SPDT	38 to 58 VDC	

Input Specifications

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

Output Specifications

Supply: 12/24 VDC

DUA 52 C 724

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

Supply Specifications

Power supply Rated operational voltage through terminals:		Overvoltage cat. III (IEC 60664, IEC 60038)
A1 and A2	724 748	8 to 28 VDC 38 to 58 VDC
Dielectric voltage		None
Dielectric voltage		
Supply to output		2 kV
Rated operational power	er	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 Alarm OFF delay	< 200 ms < 200 ms
Accuracy Temperature drift	(15 min warm-up time) ± 1000 ppm/°C
Alarm delay Repeatability	\pm 10% on set value \pm 50 ms \pm 0.5% on full-scale
Indication for	
Power supply ON	LED, green
Output relay ON	LED, yellow
Environment	
Degree of protection Pollution degree Operating temperature Storage temperature	IP 20 3 -20 to 60°C, R.H. < 95% -30 to 80°C, R.H. < 95%

Housing Dimensions Material	17.5 x 81 x 67.2 mm 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 Emissions	According to EN 60255-26 According to EN 61000-6-2 According to EN 60255-26 According to EN 61000-6-3

Mode of Operation

DUA52 monitors the DC value of its own power supply.

The output is energized when the measured voltage

is rising above the setpoint plus hysteresis, and is deenergized when the measured voltage drops below the setpoint value.

Range and Level Setting

Selection of level:

scale.

Centre knob: Setting of level on absolute **Lower knob:** Setting of hysteresis on relative scale

Operation Diagram



Dimensions



Wiring Diagram

