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DTA



Motor thermistor relay



Description

DTA71 and DTA72 are precise Motor thermistor monitoring relays.

They can monitor up to 6 motor temperatures through the motor internal temperature.

PTCs are connected in series when multiple motors are monitored.

DTA71 features 1 output, AUTO reset and no TEST switch.

DTA72 features, besides the 2 outputs, the TEST switch and the local or remote manual RESET. It can also be configured as AUTO.

The bi-colour front LED, through colours and blinks, indicates Power ON, PTC failures, alarms and when it is ready for RESET.

Benefits

- High operating safety. The thresholds are determined by the Motor PTC. Beyond the specified temperature the output stops the motor/s.
- Save time and costs. There is no need to connect other additional and expensive controllers.
- Ensure continuous production process in your plant. This type of controller allows limitation of false alarms which may be the cause of useless interruptions of production systems.
- One or two outputs. It is possible to select the 1 or 2 outputs version. The 2 ouputs version provides, besides interrupting the the Motor supply, the addition signal for a lamp, PC or PLC.
- Low profile DIN rail mounting. These devices can be mounted on classic din rail in a cabinets or in a electrical panel, The 60mm height allows installation in many applications.
- Bi-colour front LED. These devices indicate alarms for temperature and PTC.

Applications

This product is extremely suitable for pumps monitoring. It can be useful in all applications where motors are used especially where overloads are frequent and may cause motor damages: pumping stations, water treatment, conveyors, material handling, HVAC, chillers. etc.

DTA71



Monitor thermistor relay



Main features

- 1 SPDT relay output.
- · 35mm low profile DIN enclosure.
- Screw terminals
- · CE & UL approved.



Main functions

- · Motor thermistor monitoring.
- Up to 6 motors monitored.
- Auto reset.
- Multifunction LED.
- PTC short/open detection.



Description

DTA71 is a Motor thermistor monitoring relay. It can monitor up to 6 motor temperatures through the motor internal PTC.

PTCs are connected in series when multiple motors are monitored.

DTA71 features 1 SPDT Electromechanical output, AUTO reset and no TEST push button.

The bi-colour front LED, through colours and blinks, indicates power ON, PTC failures and alarms.



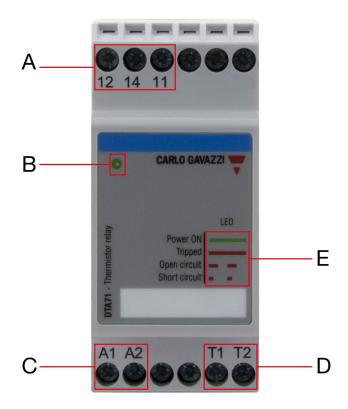
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08/07/2016 DTA71 DS ENG



Structure



Elelment	Component
Α	Output terminals
В	LED Green ON steady: no alarm Red ON steady: over-temperature alarm Fast Red blinking: open circuit PTC Slow Red blinking: short-circuit
С	Power Supply terminals A1 (+ or L) A2 (- or N)
D	PTC input Up to 6 PTCs in series can be connected
E	LED Key table

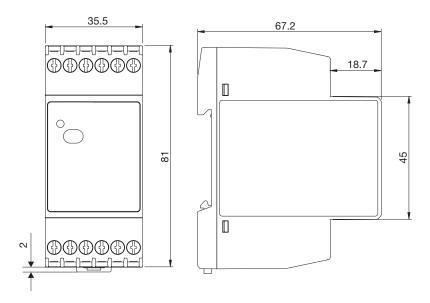


Features

Ge

General

Material PA66 or Noryl		
Assembly	DIN rail mounting (According to EN 50022)	
Protection grade IP20		
Weight	150 g	
Terminals Screw terminals. AWG30 to AWG12 (0.06mm² to 3.3 mm²)stranded or solid		



Power Supply

Power supply	18 to 265 Vac/Vdc: 45 to 65 Hz, or dc
Consumption	2.5VA (AC supply) / 1.5W (DC supply)

Environmental

Working temperature	-25° C to 60° C (-13° F to 140° F)	
Storage temperature	-40° C to 80°C (-40° F to 176° F)	
Relative humidity	5-95% non condensing	
Pollution degree	2	
Operating max altitude	2000 m	
Salinity	No saline environment	
UV resistance	No UV exposure	

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Compatibility and conformity

Standard compliance EN60255-6	
Approvals	UL 508, CSA 22.2,
CE Marking L.V. Directive EN60947-5-1, EMC Directive EN 60947-8	



Inputs

Measuring ranges			
Resistance measuring	Input from a series of 1 to 6 PTC according to EN44081 or IEC34-11-2		
Cable length Max. 600m (wire 1.5mm²) or 200m (wire 0.5mm²)			

Alarm detection		
Over-temperature trip	> 3600 Ω	
Over-temperature reset	< 1580 Ω	
Short-circuit protection	14 Ω (reset 16Ω)	
Open circuit detection	20 kΩ (reset < 18kΩ)	
Switching frequency	< 1Hz	
Refresh time	500 ms	

Outputs

Type	SPDT electromechanical relay			
Logic	De-energized on alarm			
	NEMA B 300 240 Vac			
	AC1 8 A @ 250 Vac			
Contact rating	DC12 5 A @ 24 Vdc			
	AC15 2.5 A @ 250 Vac			
	DC13 2.5 A @ 24 Vdc			



Insulation

	Basic Insulation		
Inputs to output	2.5KVrms, 4KV impulse 1.2/50us		
Inputs to supply	2.5KVrms, 4KV impulse 1.2/50us		
Output to supply	2.5KVrms, 4KV impulse 1.2/50us		



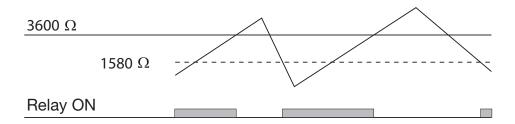
Operating diagram

When the temperature of one of the PTCs in series is exceeded the Output relay is de-energized. The LED is ON red.

When the normal temperature is restored the output relay is energized again. The LED is ON green.

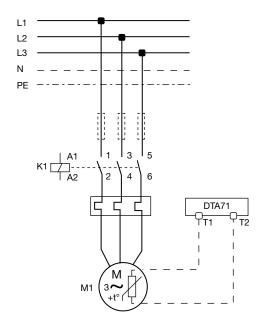


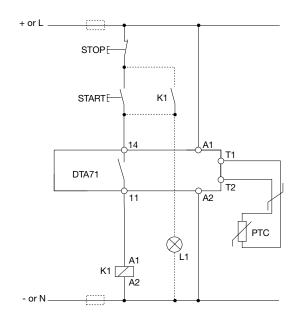
Power supply





Connection Diagrams





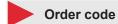
Code	Description
K1	Main contactor
START	Machine start pushbutton
STOP	Machine stop pushbutton
L1	Green Lamp (OK)



References



Information	Document	Where to find it
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CARLO GAVAZZI compatible components

Purpose	Component name/code	Notes
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