

Temperatur monitoring relay BA 9094 varimeter

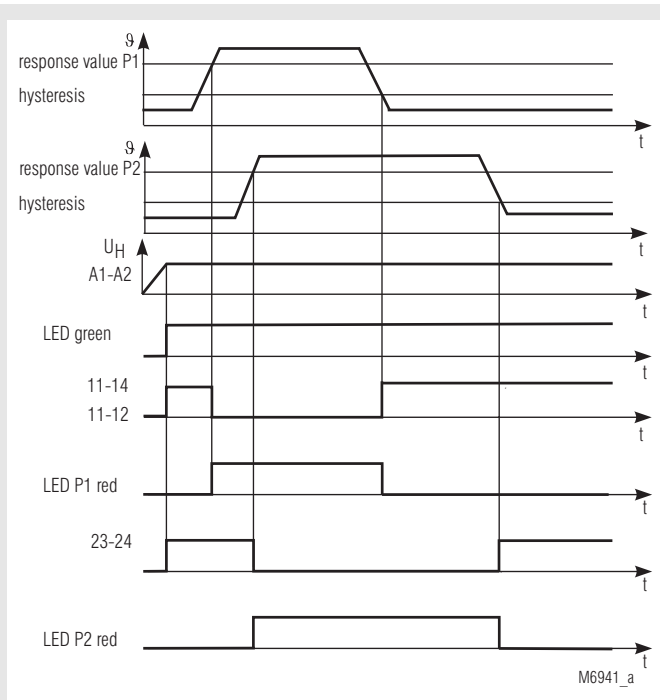
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BA 9094/001

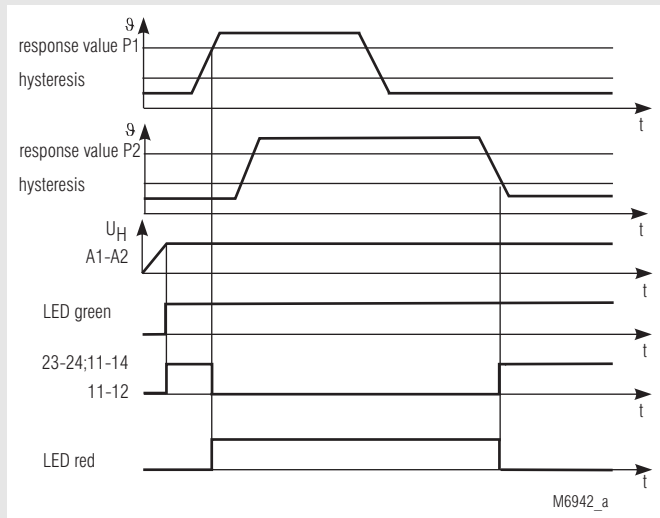
- According to IEC 255, EN 60 255, VDE 0435
- 2 PT 100 inputs with separate outputs or alternatively common output
- Optionally 1 PT 100 input with 2 separate outputs for 2 different response values
- Separate adjustable response and release values for each input
- Optionally with fixed response and release values
- Broken wire detection in sensor circuit
- Closed circuit operation
- 2 wire connection
- Width 45 mm

Function diagrams



M6941_a

BA 9094.28, BA 9094.82/100



M6942_a

BA 9094.20

Approvals and marking



Applications

Monitoring of temperature e.g. Motors, ball bearings, etc.

Function

On overtemperature and broken wire the output relay deenergises

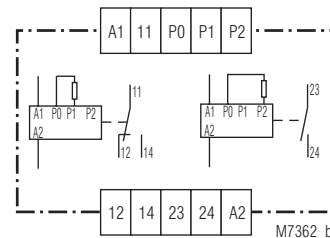
Indicator

green LED: on, when auxiliary supply connected
red LED P1, P2: on, when overtemperature

Notes

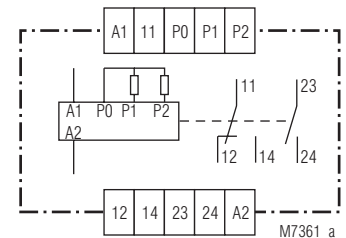
An input which is not used must be bridged

Circuit diagrams



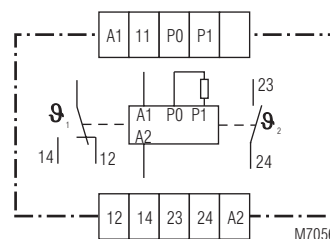
M7362_b

BA 9094.28



M7361_a

BA 9094.20



M7056

BA 9094.28/100

Technical data

Input

Inputs:	2 PT 100 inputs
Setting range response value:	20°C ... 100°C other ranges on request
Hysteresis:	85 % ... 95 % of response value

Auxiliary circuit

Auxiliary voltage U_H:	AC 24, 42, 110, 127, 230 V DC 24 V
Voltage range:	0,8 ... 1,1 U _H
Nominal consumption:	3,4 VA
Nominal frequency:	50/60 Hz

Output

Contacts:	
BA 9094.28:	1 changeover contact for P1 1 NO contact for P2
BA 9094.20:	1 changeover, 1 NO contact for P1, P2
Thermal current I_{th} :	6 A
Switching capacity to AC15:	
BA 9094.28:	5 A / AC 230 V EN 60 947-5-1
BA 9094.20:	1 A / AC 230 V EN 60 947-5-1
Electrical life	EN 60 947-5-1
BA 9094.28:	
to AC 15 at 5 A, AC 230 V:	> 0,1 x 10 ⁶ switching cycles
BA 9094.20:	
to AC 15 at 1 A, AC 230 V:	> 0,1 x 10 ⁶ switching cycles
Short-circuit strength max. fuse rating:	4 A gL EN 60 947-5-1
Mechanical life:	> 30 x 10 ⁶ switching cycles

General data

Operating mode:	Continuous operation
Temperature range:	- 20 ... + 60 °C
Clearance and creepage distances	
overvoltage category / contamination level:	4 kV / 2 IEC 60 664-1
EMC	
Electrostatic discharge:	8 kV (air) EN 61 000-4-2
HF irradiation:	10 V / m EN 61 000-4-3
Fast transients:	2 kV EN 61 000-4-4
Surge voltages between wires for power supply:	1 kV EN 61 000-4-5
between wire and ground:	2 kV EN 61 000-4-5
Interference suppressions:	Limit value class B EN 55 011
Degree of protection:	
Housing:	IP 40 EN 60 529
Terminals:	IP 20 EN 60 529
Housing:	Thermoplastic with V0 behaviour according to UL subject 94
Vibration resistance:	Amplitude 0,35 mm, frequency 10 ... 55 Hz
Climate resistance:	20 / 060 / 04 EN 60 068-2-6
Terminal designation:	EN 50 005
Wire connection:	2 x 2,5 mm ² solid or 2 x 1,5 mm ² stranded wire with sleeve DIN 46 228-1/-2/-3/-4
Wire fixing:	Plus-minus terminal screws M3,5 with self-lifting clamping piece
Mounting:	DIN rail EN 50 022
Weight:	320 g

Dimensions

Width x height x depth:	45 x 74 x 132 mm
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Standard type

BA 9094.28 AC 230 V 50/60 Hz 2 x 20 ... 100°C	
Article number:	0048194 stock item
• Output:	1 changeover contact for P1 1 NO contact for P2
• Nominal voltage U _N :	AC 230 V
• Response value:	2 x 20 ... 100°C
• Width:	45 mm

Variants

BA 9094. __ /001:	with fixed response and release value Response value: 135°C ± 2°C other values on request Release value: 125°C ± 2°C other values on request
BA 9094.82/100:	only 1 PT 100 input with 2 separate outputs for 2 different response values

Ordering example for variants

