

## VARIMETER

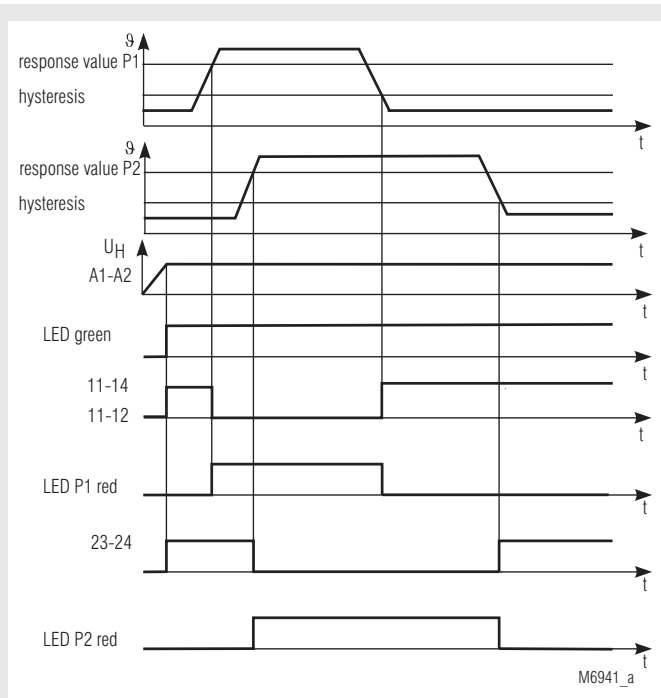
### Temperature Monitoring Relay BA 9094



BA 9094/001

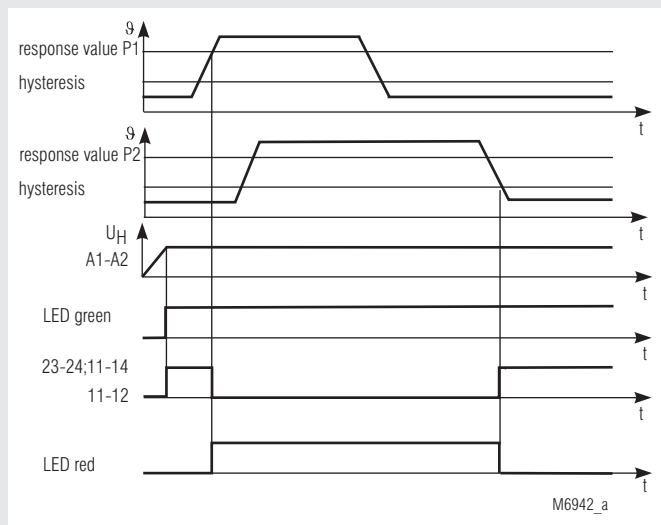
- According to IEC/EN 60 255, VDE 0435
- 2 PT 100 inputs with separate outputs or alternatively common output
- Optionally 1 PT 100 input with 2 separate outputs for 2 different response values
- Separate adjustable response and release values for each input
- Optionally with fixed response and release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

### Function Diagrams



M6941\_a

BA 9094.28, BA 9094.28/100



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

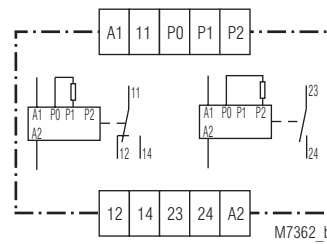
### Indicator

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

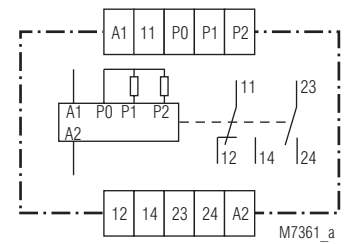
### Notes

An input which is not used must be bridged

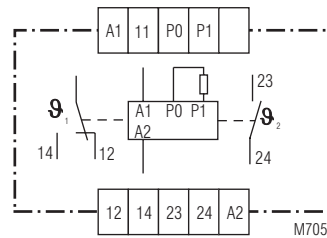
### Circuit Diagrams



BA 9094.28



BA 9094.20



BA 9094.28/100

## Technical Data

### Input

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

### Auxiliary Circuit

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

### Output

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

### General Data

<b>Operating mode:</b>	Continuous operation
<b>Temperature range:</b>	- 20 ... + 60 °C
<b>Clearance and creepage distances</b>	
rated impuls voltage / pollution degree:	4 kV / 2 IEC 60 664-1
<b>EMC</b>	
Electrostatic discharge:	8 kV (air) IEC/EN 61 000-4-2
HF irradiation:	10 V / m IEC/EN 61 000-4-3
Fast transients:	2 kV IEC/EN 61 000-4-4
Surge voltages between wires for power supply:	1 kV IEC/EN 61 000-4-5
between wire and ground:	2 kV IEC/EN 61 000-4-5
Interference suppressions:	Limit value class B EN 55 011
<b>Degree of protection:</b>	
Housing:	IP 40 IEC/EN 60 529
Terminals:	IP 20 IEC/EN 60 529
<b>Housing:</b>	Thermoplastic with V0 behaviour according to UL subject 94
<b>Vibration resistance:</b>	Amplitude 0,35 mm, frequency 10 ... 55 Hz IEC/EN 60 068-2-6
<b>Climate resistance:</b>	20 / 060 / 04
<b>Terminal designation:</b>	EN 50 005
<b>Wire connection:</b>	2 x 2,5 mm <sup>2</sup> solid or 2 x 1,5 mm <sup>2</sup> stranded wire with sleeve DIN 46 228-1/-2/-3/-4
<b>Wire fixing:</b>	Flat terminals with self-lifting clamping piece IEC/EN 60 999-1
<b>Mounting:</b>	DIN rail IEC/EN 60 715
<b>Weight:</b>	320 g

### Dimensions

<b>Width x height x depth:</b>	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 <sub>N</sub> :	AC 230 V
• Response value:	2 x 20 ... 100°C
• Width:	45 mm

## Variants

BA 9094. __ /001:	with fixed response and release value <b>Response value:</b> 135°C ± 2°C other values on request <b>Release value:</b> 125°C ± 2°C other values on request
BA 9094.28/100:	only 1 PT 100 input with 2 separate outputs for 2 different response values

## Ordering example for variants

