

Description

The Z1MS is a thermistor overload relay in accordance with DIN EN 44 081 for PTC-thermistors. It is designed for direct temperature monitoring on motors and machinery, including hazardous locations.

- 22.5 mm Z-80 Housing, DIN-Rail Mounting
- 1 Measuring Circuit
- Relay Output: 1 N/O + 1 N/C
- Failsafe Principle

Special Features

- Automatic reset after over-temperature
- Classification:



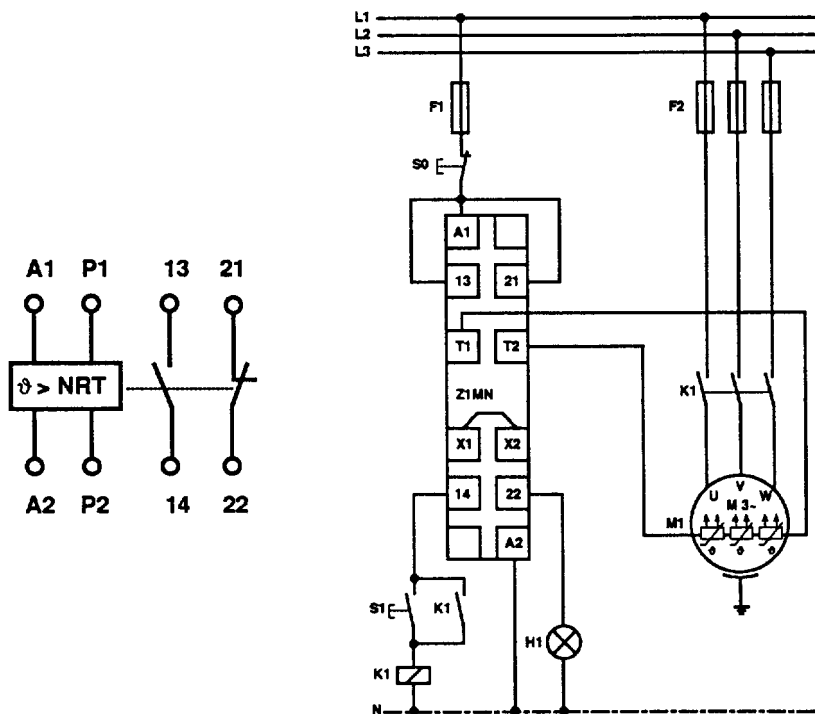
Order Reference

Z1MS/220 V~

Operating Voltage U_B

Z-80 Range
Thermistor Protection Relay
with automatic reset

Connection Diagram



Operation

Operating Voltage U_B = on

On-position, $\vartheta < NRT$ (3 k Ω):

- output relay switches to operating condition

Over-temperature, $\vartheta \geq NRT$:

- output relay switches to rest condition

Reset, $\vartheta < R_{Output}$ (1.5 k Ω):

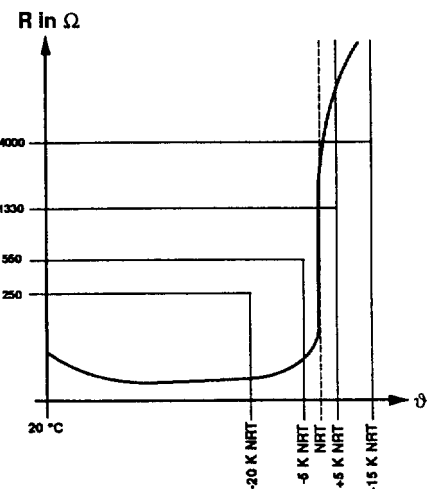
- output relay switches back to operating condition

Rest Condition

- Contact 13-14 = open
- Contact 21-22 = closed

Operating Condition

- Contact 13-14 = closed
- Contact 21-22 = open



Typical cycle $R(\vartheta)$ of PTC-thermistors for thermistor protection in accordance with DIN 44 081.

Technical Details, Z1MS (for general technical details see appendix)

Operating Voltage U_B	24, 42, 48, 110, 120, 127, 220, 240 V~; 24 V=
Power Consumption	$U_B \leq 2 \text{ VA}/2 \text{ W}$
Voltage Variation	-25% ΔU (operating and rest condition)
Temperature Variation	-30 Ω/K (operating and rest condition)
Switch-off Resistance R_{off} $\vartheta \geq NRT$	$\geq 3 \text{ k}\Omega \pm 20 \%$
Switch-on Resistance R_{on}	$< 1.5 \text{ k}\Omega$
Relay Contacts	1 N/O + 1 N/C AgCdO
Switching Capability	250 V~/0.1-5 A/1100 VA (cos φ 1) 250 V~/0.1-1 A/250 W (spark suppress)
Maximum Switching Current	10 A~
Contact Fuse Protection (VDE 0660 Pt.2)	6 A quick acting/slow acting