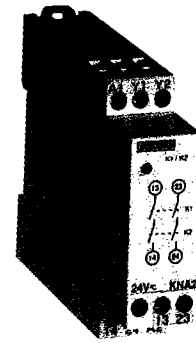


“KNA2” safety relay (22.5mm)

- “Emergency stop” and “safety gate monitoring” functions
- “CE” conforming product, UL and cUL recognized
- Self-checking redundancy concept
- 2 “N/O” safety contacts 4 A / 250 V AC
- Return loop for connection of external contactors



UL - E 87133
cUL - E 87133

Technical characteristics

Power supply

Power supply voltage AC: 24 V 50/60 Hz
DC: 24 V max.
ripple: 10%

Operating range 85 to 115% for AC supply voltage
85 to 120% for DC supply voltage

Accuracy

Reset time 50 ms
Response time for ES 50 ms

Output specifications

Outputs Dry contact
No. of safety circuits 2 “N/O” AgCdo contacts
Breaking capacity 1000 VA resistive at 600 operations/hr
Max. current breaking capacity 4 A. resistive (derating 20 mA/°C)
Max. voltage breaking capacity 250 VAC
Output protection requirement 6 A quick-blow fuses

Operation and Use

Max. drawn power 3 VA
On/off indication 1 status LED for K1/K2 relays
Electrical life 10⁵ operations at 1000 VA resistive
Mechanical life 10⁷ operations
Operating temperature -10 °C to +55 °C
Internal control voltage 24 V =
Immunity to interference and noise (EMC)
IEC 1000-4-4 Rapid transient:
Level 3
IEC 1000-4-2
Electrostatic discharges: Level 3
IEC 255.4 Damped oscillating waves:
Level 3
Insulation coordination Installation category III, degree of pollution 2
Dielectric strength; impulse voltage 2.5 KV
Thermoplastic casing Self-extinguishing (UL 94)
Protection Casing IP 40
Terminals IP 20
Connection 2 x 1.5 mm² multicore with ferrule
Weight 160g (5.5 oz.)

Types

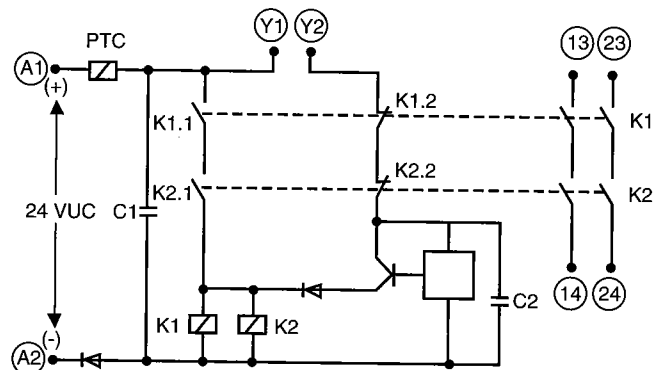
Part numbers (and voltages)

Part number	Voltage
KNA2	24 VAC / VDC
85 100 026	

Conformity

European “Machines” Directive 89/392/EEC	•
European standard EN 60204-1 (Machine safety - Electrical equipment)	•
European standard pr EN 954-1 (Safety-related control system elements)	• (Level 3)
European standard EN 418 (Machine safety - Emergency stop device)	•
European standard pr EN 1088 (provisional) (Machine safety - Locking & interlocking devices)	•

Function diagram



Key

A1 - A2 : Supply voltage
Y1 - Y2 : Push-button; Start or Validation or Test
13 - 14, 23 - 24 : Safety contact

