

"KZH3-RS" safety relay (45 mm)

- Type III C "2-hand control" functions according to EN 574/97
- "CE" conforming product with type-examination
- BG approved product
- INRS certification : Q3.99
- Control device with two channels
- Safety via redundancy and self-checking
- Integrity check on control devices
- 3 "N/O" safety contacts with linked contacts - 6 A / 250 V~
- 1 "N/C" signalling contact
- Can be used to obtain level 4 according to NF.EN 954-1



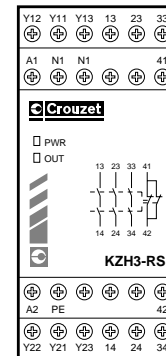
Technical characteristics

Power supply	
Power supply voltage	~ 24 V 50/60 Hz --- 24 V max. ripple 10%
Operating range	-15% / +10% of Un for ~ -10% / +15% of Un for ---
On/off indication	1 power supply voltage LED
Accuracy	
Reset time	< 500 ms
Maximum response time on emergency stop at Un	< 20 ms
Output specification	
Type	Volt-free outputs
No. of safety circuits	3 "N/O" AgSnO ₂ contacts
No. of data circuits	1 "N/C" AgSnO ₂ contacts
Breaking capacity	1500 VA resistive
Max. current breaking capacity	6.82 A
Max. voltage breaking capacity	440 V~
Electrical life	10 ⁵ operations at 1500 VA resistive 5.10 ⁵ operations at 500 VA resistive
Mechanical life	10 ⁷ operations
Operation and use	
Max. absorbed power	24 AC 1.5 VA / 24 DC 1.5 W / 115-230 AC 3.2 VA
On/off indication	1 internal relay status LED
Operating temperature	0°C to +50°C acc. to IEC 68-2-14
Storage temperature	-20°C to +70°C acc. to IEC 68-1/2
Internal voltage	24 V---
Dielectric strength	2.95 kV according to IEC 664-1
Resistance to tracking	Material group III
EMC immunity according to EN 50082-2	
Rapid transients	2 kV directly acc. to IEC 1000.4.4 4 kV directly for the 230 V~ version 2 kV when coupled
Radiated electromagnetic field	30 V/m Level X acc. to IEC 1000.4.3 80 MHz to 1 GHz / 900 MHz (ENV 50140/204)
Electrostatic discharges	15 kV in the air acc. to IEC 1000.4.2
Shock waves	Level 3 according to IEC 1000.4.5 Common mode 4 kV for 230 V~ 2 kV residual current mode Common mode 2 kV for 24 V--- and 24 V~
Radio frequencies in common mode	10 V rms on inputs / Level 3 according to IEC 1000.4.6 30 V rms on supp. / Level X according to IEC 1000.4.6 150 kHz to 80 MHz (ENV 50141) according to IEC 1000.4.11
Drop-out / short breaks / microbreaks	Un-30% for 10 ms every 1 s Un-60% for 100 ms every 1 s according to IEC 61496-1/97 Un-100% for 10 ms every 100 ms* Un-50% for 20 ms every 200 ms*
* the device operates normally	
** the device has not failed dangerously	Un-50% for 500 ms every 5 s**
Casing	
Material	Polycarbonate Self-extinguishing - UL94 class VO
Degree of protection	Casing : IP40 Terminal : IP20
Terminal capacity	2 X 1.5 mm ² multicore with ferrule 2 X 2.5 mm ² solid conductor
Weight	310 g 24 AC/DC 410 g 115-230 AC

Type	KZH3-RS
Part number (and voltage)	
24 V ~/---	85 100 636
115 V~	85 100 634
230 V~	85 100 635

Conformity	
European "Machinery" Directive 89/392/EEC	●
French Decree 92/765-766-768	●
European "Usage" Directive 89/655/EEC	●
French Decree 93-40 / 93-41	●
European "EMC" Directive 89 336/EEC	●
IEC 61496-1	●
IEC 664-1	●
EN 50081-2	●
EN 50082-2	●
EN 60204-1	●
EN 292-1 and 2	●
EN 574 / 97	● Type III C
EN 954-1	● Category 4
EN 418	●
EN 1088	●
UL 508	● UL
C22-2 No. 14-M91	● (C) UL
GS-ET-20	● BG

Connections



Key

- A1-A2 : Power supply
- Y11-Y12-Y13 and Y21-Y22-Y23 : Redundant inputs with differentiated voltage for control devices
- 13-14/23-24/33-34 : "N/O" safety contacts
- 41-42 : "N/C" signalling contacts

To order, specify :

Standard products **1** Part number
Example : KZH3-RS safety relay : 85 100 634

Control devices :

The KZH3-RS can receive the following components as inputs :

- two pushbuttons with two positions "N/O" + "N/C" (Y11-Y12-Y13 and Y21-Y22-Y23)
- one or two emergency stop pushbuttons with one or two channels (A1-A2).

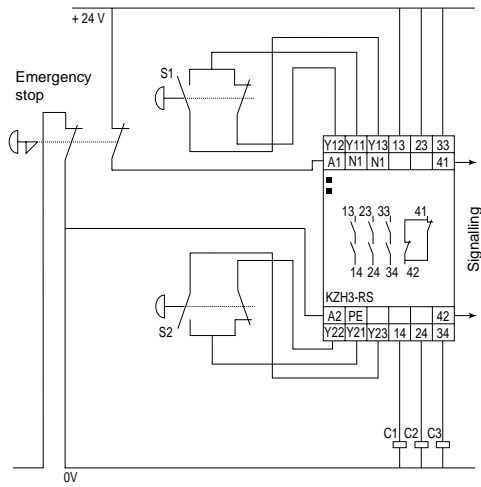
Control devices :

The KZH3-RS has three "N/O" safety contacts (13-14/23-24/ 33-34) and one "N/C" signalling contact (41-42). One or more control devices may be wired up to the breaking capacity of the safety contacts : 1500 VA. However, to limit internal heating in the KZH3-RS, it is advisable not to exceed 10 A thermal for all three contacts.

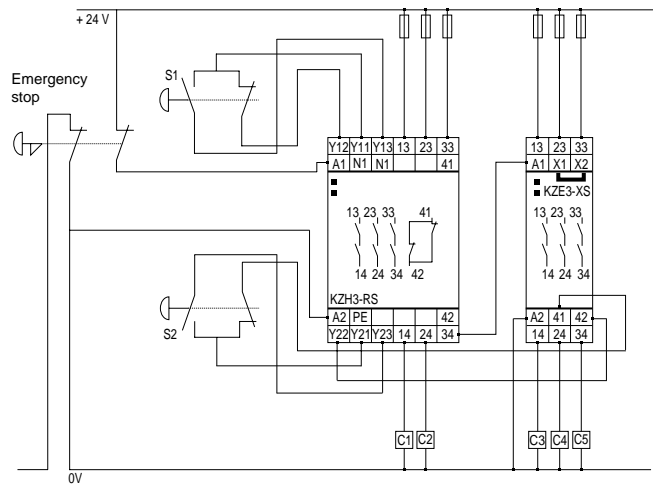
Extending the number of contacts :

The number of contacts of the KZH3-RS can be extended and the breaking capacity thus increased. To do this, use the KZE3-XS.

Examples of use

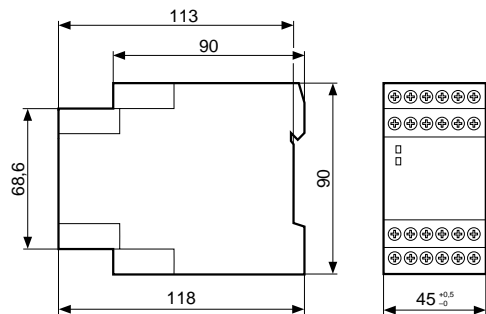


KZH3-RS



KZH3-RS with KZE3-X3 extension module

Dimensions



Mounting - Removing see page 11/7

