Emergency stop KNA3-RS Part number 85100434


- "Emergency stop" and "mobile guard monitoring" functions
- Control device with one or two channels
- 3 "N/O" safety contacts with linked contacts-6A / 250 AC
- 1 "N/C" signalling contact
- Level 4 according to NF.EN 954-1
- Integrity check on control devices
- Separate return loop
-     - Four input circuits

|  | Type | Function | Level of safety | Safety contacts | Casing | Supply voltage | Connections | Weight (g) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 85100036 | KNA3-XS | Emergency stopMobile guard monitoring | 3 | 3 | 22,5 mm | 24 V ACDC | Screw terminals | 310 |
| 85100037 | KNA3-XS | Emergency stopMobile guard monitoring | 3 | 3 | 22,5 mm | 40-260 V AC | Screw terminals | 310 |
| 85101036 | KNAC3-XS | Emergency stopMobile guard monitoring | 4 | 3 | 45 mm | 24 V ACDC | Spring terminals | 310 |
| 85101037 | KNAC3-XS | Emergency stopMobile guard monitoring | 4 | 3 | 45 mm | 40-260 V AC | Spring terminals | 310 |
| 85100436 | KNA3-RS | Emergency stopMobile guard monitoring | 4 | 3 | 45 mm | 24 V ACDC | Screw terminals | 310 |
| 85100434 | KNA3-RS | Emergency stopMobile guard monitoring | 4 | 3 | 45 mm | 115 V AC | Screw terminals | 410 |
| 85100435 | KNA3-RS | Emergency stopMobile guard monitoring | 4 | 3 | 45 mm | 230 V AC | Screw terminals | 410 |
| 85100536 | KZP3-RS | Emergency stopMobile guard monitoring | 4 | 3 | 45 mm | 24 V ACDC | Screw terminals | 410 |


| Supply voltage | 1 power supply voltage LED |
| :---: | :---: |
| On/off indication |  |
| Type |  |
| Breaking capacity (V resistive) | 1500 VA |
| Max. breaking current | 6,82 A |
| Max. breaking voltage | 440 V AC |
| Electrical endurance | $10^{5}$ operations at 1500 VA resistive $5 \times 10^{5}$ operations at 500 VA resistive |
| Mechanical life (operations) | $10^{7}$ |
| On/off indication |  |
| Operating temperature ( ${ }^{\circ} \mathrm{C}$ ) IEC 68-2-14 | $0 \rightarrow+50$ |
| Storage temperature (IEC 68-2-12) ( ${ }^{\circ} \mathrm{C}$ ) | $-20 \rightarrow+70$ |
| Internal voltage | 24 V DC |
| fast transients |  |
| Drop-out / short breaks / microbreaks | Un-30\% for 10 ms every 1 s <br> Un-60\% for 100 ms every 1 s according to IEC 61496-1/97 <br> Un-100\% for 10 ms every 100 ms <br> Un-50\% for 20 ms every 200 ms <br> Un-50\% for 500 ms every 5 s |
| Material | Polycarbonate Self-extinguishing-UL94 class VO |
| Protection Housing | IP 40 |
| Degree of terminal protection | IP 20 |
| Connection capacity | $2 \times 1,5 \mathrm{~mm}^{2}$ multicore with ferrule $2 \times 2,5 \mathrm{~mm}^{2}$ solid conductor |
| Spring terminals, 2 terminals per connection point - rigid wire | $2,5 \mathrm{~mm}^{2}$ |
| Spring terminals, 2 terminals per connection point flexible wire | $1,5 \mathrm{~mm}^{2}$ |
| Operating range |  |
| Reset time |  |
| Maximum response time on emergency stop | $<50 \mathrm{~ms}$ |
| Number of safety circuits |  |
| Number of data circuits | 1 "NC" AgSnO contacts |
| Max. absorbed power |  |
| Dielectric strength | 2,95 kVaccording to CEI 664-1 |
| Resistance to tracking | Material group III |
| Radiated electromagnetic field |  |
| Electrostatic discharge | 8 kV in the air acc. to IEC 1000.4 .2 <br> KNA3-RS / KZP3-RS: 15 kV in the air acc. to IEC 1000.4.2 |
| Shock waves | KNA3-XS: <br> - Common mode 1 kV acc. to IEC 1000.4.5 KNA3-RS / KZP3-RS: <br> - Level 3 acc. to IEC 1000.4.5 <br> - Common mode 2 kV for 24 V and 24 V |

Radio frequencies in common mode

European "Machinery" Directive 89/392/EEC

| French decree 92/765-766-768 | - |
| :---: | :---: |
| European "Usage" Directive 89/655/EEC | - |
| French decree 93-40 /93-41 | - |
| IEC 61496-1 | - |
| IEC 664-1 | - |
| En 50081-2 | - |
| EN 50082-2 | - |
| EN 60204-1 | - |
| EN 292-1 and 2 | - |
| Safety category to EN 954-1 | Catégorie 4 |
| EN 418 | - |
| EN 1088 | $\bullet$ |
| UL 508 | UL |
| C22-2N014 M91 | (c) UL |
| GS-ET-20 | BG |



The KZP3-RS is used to obtain and maintain a category 4 level of safety for an installation with two control devices.
Depending on the degree of safety required, KNA3-XS / KNA3-RS / KZP3-RS can receive the following components as inputs:

- pushbutton for start or validation (Y1-Y2)
- emergency stop pushbuttons with one or two contacts (A1-A2)
one or two contacts (A1-A2)
two contacts KNA3-RS: Y11-Y12 and Y21-Y22,
two contacts KZP3-RS: Y11-Y12 / Y21-Y22 and Y31-Y32 / Y41-Y42
- position sensors (limit switches) with
one or two contacts (A1-A2)
two contacts KNA3-RS: Y11-Y12 and Y21-Y22,
two contacts KZP3-RS: Y11-Y12 / Y21-Y22 and Y31-Y32 / Y41-Y42
A positive break operation device must be used if a single channel is used
To increase the degree of safety, one " $\mathrm{N} / \mathrm{C}$ " auxiliary contact per power contactor is wired in series with the start (or validation) pushbutton, to ensure self-checking in this part of the installation.
The KNA3-XS has three "N/O" safety contacts (13-14/23-24/33-34) and one " $\mathrm{N} / \mathrm{C}$ " 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, it is advisable not to exceed 10 A thermal for all three contacts. The signalling contact can be wired on a PLC input or integrated into a fault signalling system.

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


## A1-A2

Y11-Y12 / Y21-Y22
Y1-Y2
S1-S2
X1-X2
13-14/23-24/33-34
41-42
Legend
Power supply
Redundant inputs with differentiated voltage for control devices
Start/validation
Short-circuit protection on start / validation input
Return loop
"N/O" safety contacts
"N/C" signalling contacts

