

## 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

	Туре	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

On/off indication	1 power supply voltage LED
Туре	
Breaking capacity (V resistive)	1500 VA
Max. breaking current	6,82 A
Max. breaking voltage	440 V AC
Electrical endurance	10 <sup>5</sup> operations at 1500 VA resistive
	5x10 <sup>5</sup> operations at 500 VA resistive
Mechanical life (operations)	10 <sup>7</sup>
On/off indication	
Operating temperature (°C) IEC 68-2-14	0 →+50
Storage temperature (IEC 68-2-12) (°C)	-20 -+70
Internal voltage	24 V DC
fast transients	
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 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 x 1,5 mm <sup>2</sup> multicore with ferrule 2 x 2,5 mm <sup>2</sup> solid conductor
Spring terminals, 2 terminals per connection point - rigid wire	2,5 mm <sup>2</sup>
Spring terminals, 2 terminals per connection point - flexible wire	1,5 mm <sup>2</sup>

## **Operating range**

Reset time	
Maximum response time on emergency stop	< 50 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 KNA3-RS / KZP3-RS: 15 kV in the air acc. to IEC 1000.4.2
Shock waves	KNA3-XS: - Common mode 1 kV acc. to IEC 1000.4.5 KNA3-RS / KZP3-RS: - Level 3 acc. to IEC 1000.4.5 - Common mode 2kV for 24 V and 24 V

21/03/2012

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<ul> <li>Common mode 4 kV for 230 V (2 kV residual current mode for KNA3-RS)</li> </ul>
KNA3-XS:
- 10 V rms Level 3 according to IEC 1000.4.6
- 150 KhZ TO 80 MHz (ENV 50141) according to IEC 1000.4.11
KNA3-RS / KZP3-RS:
- 30 Vrms Level X acc. to IEC 1000.4.6
150 kHz to 80 MHz (ENV 50141) according to IEC 1000.4.11

European "Machinery" Directive 89/392/EEC

Radio frequencies in common mode

French decree 92/765-768         •           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 60204-1         •           Safety category to EN 954-1         Catégorie 4           EN 1088         •           UL 508         UL           GS-ET-20         BG		
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 1088         •           UL 508         UL           622-2N <sup>0</sup> 14 M91         (c) UL           63-ET-20         BG	French decree 92/765-766-768	•
French decree 93-40 /93-41         •           IEC 61496-1         •           IEC 664-1         •           En 50081-2         •           EN 50082-2         •           EN 60204-1         •           EN 60204-1         •           Safety category to EN 954-1         Catégorie 4           EN 418         •           EN 1088         •           UL 508         UL           622-N <sup>0</sup> 14 M91         (c) UL           6S-ET-20         BG	European "Usage" Directive 89/655/EEC	•
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EN 1088         •           UL 508         UL           C22-2N°14 M91         (c) UL           GS-ET-20         BG	EN 418	•
UL 508         UL           C22-2N <sup>0</sup> 14 M91         (c) UL           GS-ET-20         BG	EN 1088	•
C22-2Nº14 M91         (c) UL           GS-ET-20         BG	UL 508	UL
GS-ET-20 BG	C22-2N <sup>o</sup> 14 M91	(c) UL
	GS-ET-20	BG

## Dimension Diagram : KNA3-RS / KZP3-RS







# 21/03/2012

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 "N/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 "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, 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 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