# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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#### 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 devicesSeparate return loop
- Separate return loop
  Four input circuits
- Туре Function Casing Supply voltage Weight (g) Level of safety Safety contacts Connections KNA3-XS Emergency stopMobile guard monitoring 3 3 22,5 mm 24 V ACDC Screw terminals 310 KNA3-XS Emergency stopMobile guard monitoring 3 3 22,5 mm 40 - 260 V AC Screw terminals 310 85101036 KNAC3-XS 24 V ACDC Emergency stopMobile guard monitoring 45 mm 3 Spring terminals 310 4 85101037 KNAC3-XS Emergency stopMobile guard monitoring 3 45 mm 40 - 260 V AC Spring terminals 310 4 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 3 45 mm 230 V AC 410 4 Screw terminals 410 85100536 KZP3-RS Emergency stopMobile guard monitoring 24 V ACDC 4 3 45 mm Screw terminals

#### 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

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- Common mode 4 kV for 230 V (2 kV residual current mode for KNA3-RS)
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    •		
French decree 93-40 /93-41    IEC 61496-1    IEC 664-1    En 50081-2    EN 50082-2		•
IEC 61496-1  •    IEC 664-1  •    En 50081-2  •    EN 50082-2  •	European "Usage" Directive 89/655/EEC	•
IEC 664-1      •        En 50081-2      •        EN 50082-2      •	French decree 93-40 /93-41	•
En 50081-2 • EN 50082-2 •	IEC 61496-1	•
EN 50082-2	IEC 664-1	•
	En 50081-2	•
	EN 50082-2	•
EN 60204-1	EN 60204-1	•
EN 292-1 and 2	EN 292-1 and 2	•
Safety category to EN 954-1 Catégorie 4	Safety category to EN 954-1	Catégorie 4
EN 418	EN 418	•
EN 1088	EN 1088	•
UL 508 UL	UL 508	UL
C22-2Nº14 M91 (c) UL	C22-2Nº14 M91	(c) UL
GS-ET-20 BG	GS-ET-20	BG









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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