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.

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Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

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Vibration resistance according to IEC/EN 60068-2-6	Amplitude : 0,35 mm Frequency : 10 →55 Hz

Electromagnetic environment

Immunity to electrostatic discharges acc. IEC/EN 61000-4-2	8 kV (air)
Immunity to radiated, radio-frequency, electromagnetic field acc. IEC/EN 61000-4-3	10 V / m
Immunity to rapid transient bursts acc. to IEC/EN 61000-4-4	2 kV
Immunity to shock waves according to IEC/EN 61000-4-5	Between wires for power supply : 1 kV (AC), 0,5 kV (24 V AC/DC) Between wires and ground : 2 kV
Immunity to radio frequency in common mode acc. to IEC/EN 61000-4-6	10 V
Interference suppression according to IEC/EN 55011	Limit value class B

Housing

Material : self-extinguishing (UL94VO)	Thermoplastic with V0 extinction behaviour
Protection (IEC/EN 60529) - Casing	IP40
Protection (IEC/EN 60529) - Term. block	IP20
Mounting	DIN-rail
Weight (g)	210 (24 VAC/DC) 275 (230 VAC)

Safety standards

Approvals	CE, TÜV, UL / CSA
Environmental directive 2002/95/CE	RoHS
Environmental regulation 1907/2006	Reach
Security data according to EN ISO 13849-1	Performance Level (PL) : e Category : 4
SIL Claimed Level (SIL CL) to IEC/EN 62061	3
Safety Integrity Level (SIL) according to CEI/EN 61508	3
Safety category to EN 954-1	4

Principles

EN ISO 13849-1:		
Category:	4	
PL:	e	
$MTTF_d$:	> 100	a (year)
DC_{avg}:	99,0	%
d_{op}:	365	d/a (days/year)
h_{op}:	24	h/d (hours/day)
t_{cycle}:	3600	s/cycle
	≙ 1	/h (hour)

IEC/EN 62061 IEC/EN 61508:		
SIL CL:	3	IEC/EN 62061
SIL	3	IEC/EN 61508
HFT[*)]:	1	
DC_{avg}:	99,0	%
SFF	99,7	%
PFH_D:	2,66E-10	h^{-1}
[*)] HFT =	Hardware failure tolerance	

Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected

Dimensions (mm)

Dimensions (mm)

KNE3-YS - Screw terminals
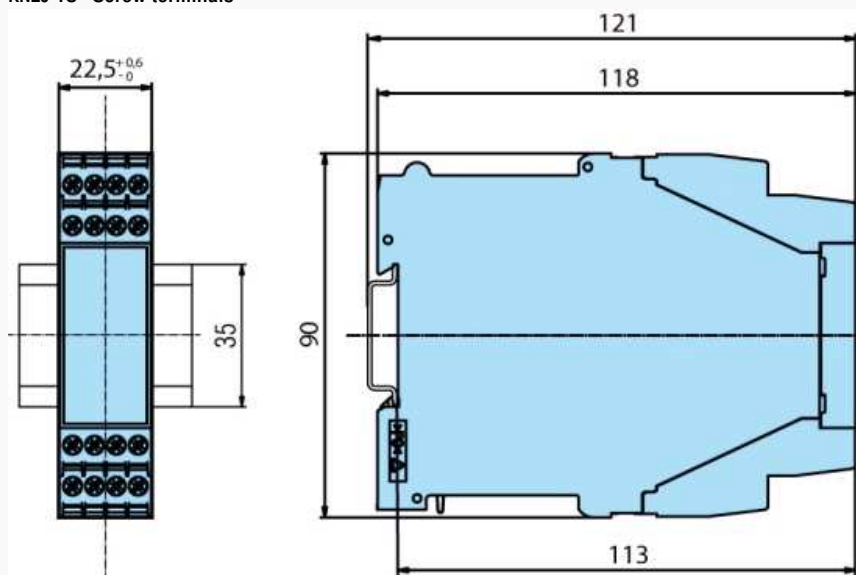
Curves

Function diagram

Pushbutton (On)

Emergency stop (Off)

K1 Relay

K2 Relay
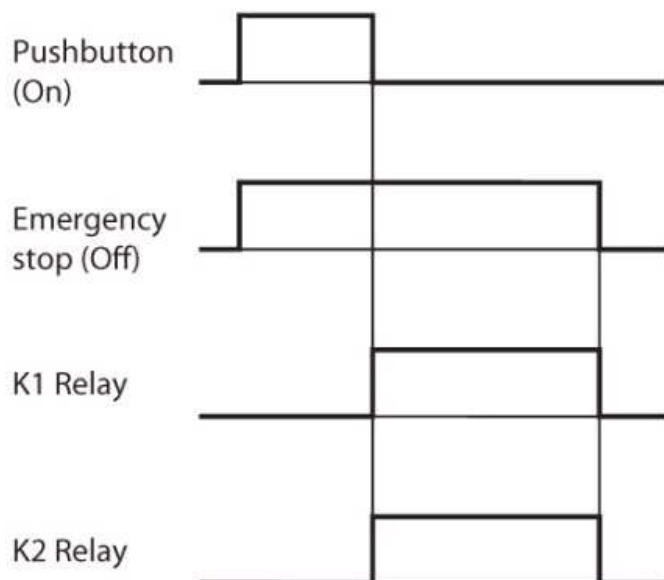
Connections

Front face drawing KNE3-YS

KNE3-YS

85 102 435
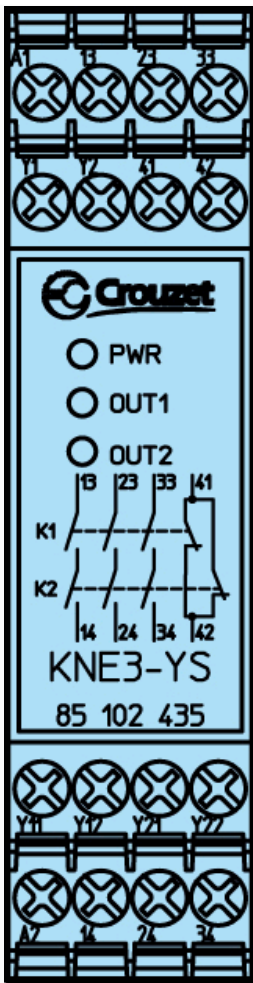
Connections

Contacts

A1 +	13	23	33
Y1	Y2	41	42

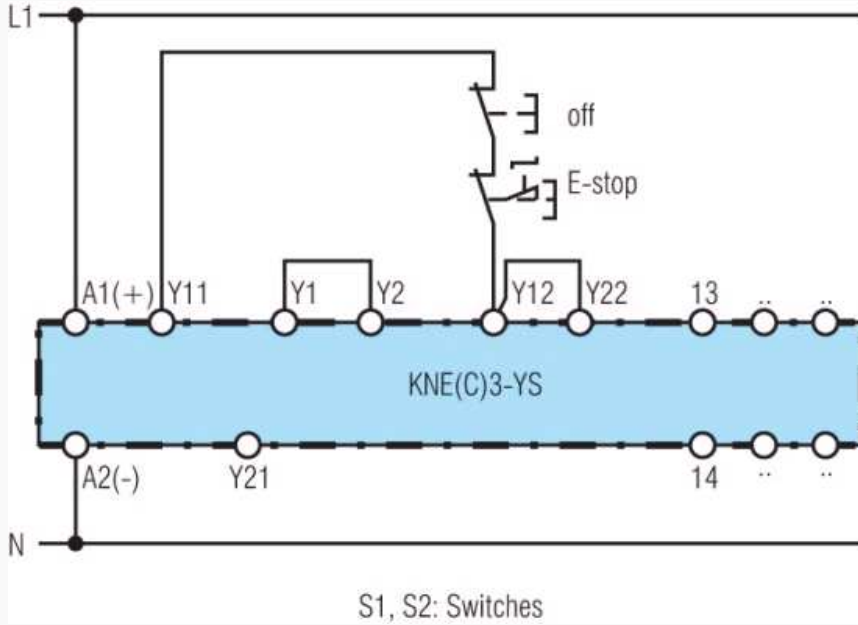| Y11	Y12	Y21	Y22
A2	14	24	34
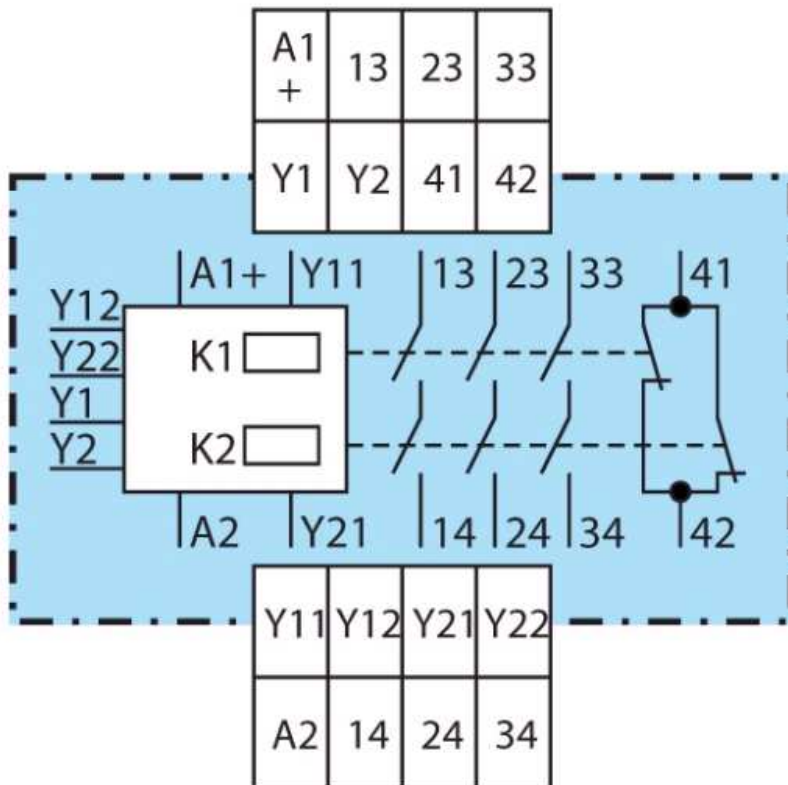
A1 (+) : + / L A2 : - / N Y1, Y2 : Validation Input Y11, Y21, Y12, Y22 : Control Inputs 13, 14, 23, 24, 33, 34 : Safety circuit outputs (forcibly guided NO contacts) 41, 42 : Monitoring output (forcibly

*Unless otherwise specified, the characteristics given are applicable to all or part of the product range selected*

Applications

Single channel emergency stop circuit

S1, S2: Switches

This circuit does not have any redundancy in the emergency-stop control circuit. S1 : no cross fault detection S2 : automatic start
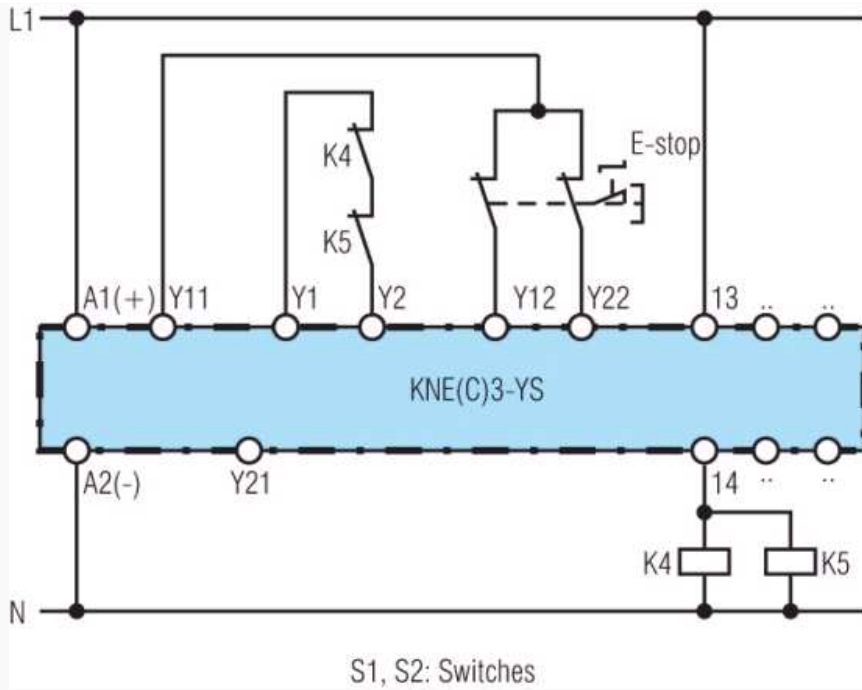
Applications

2-channel emergency stop circuit without cross fault monitoring

S1, S2: Switches
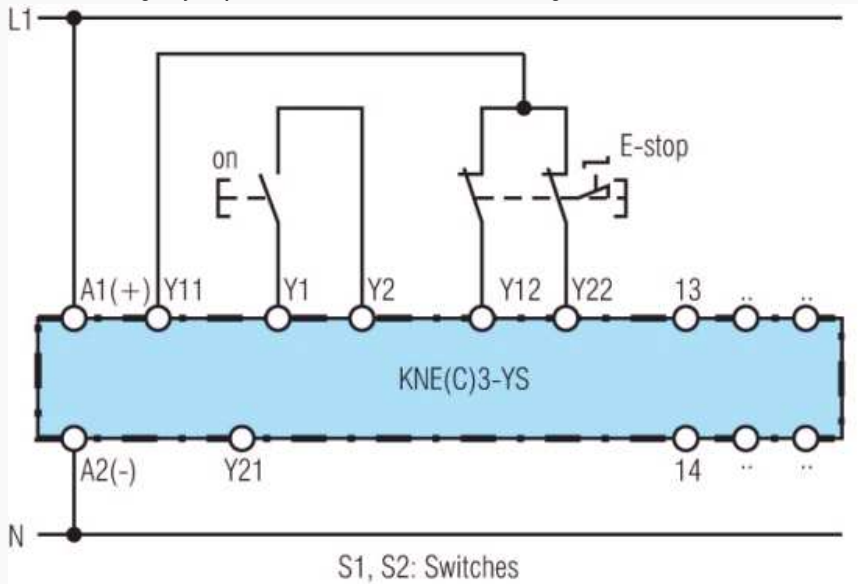
S1 : no cross fault detection S2 : manual start
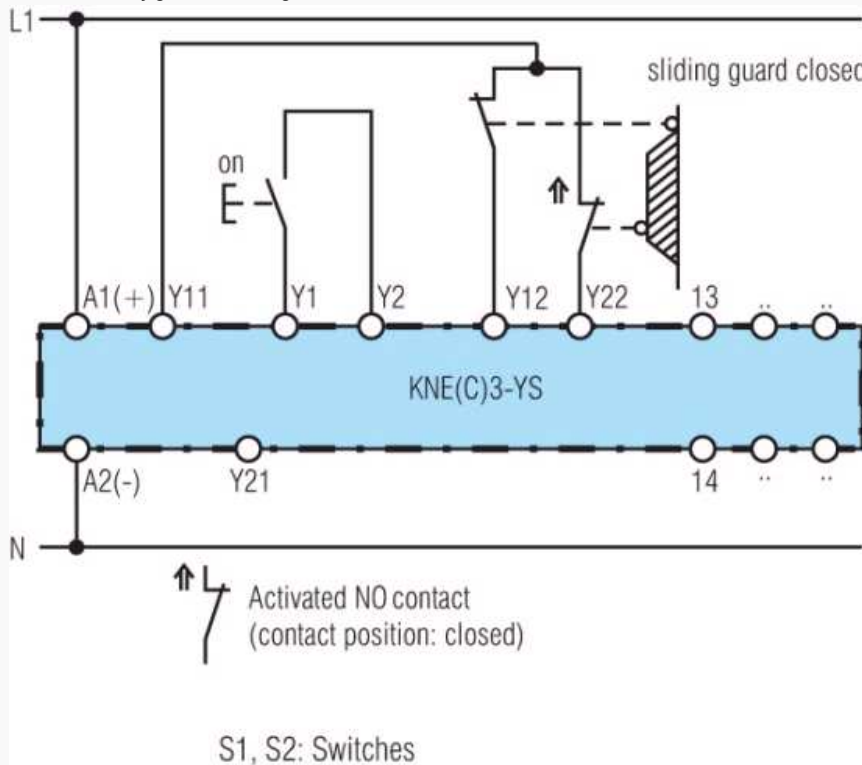
Applications

Contact reinforcement by external contactors controlled by one contact path

K4
K5
E-stop

A1(+) Y11 Y1 Y2 Y12 Y22 13 .. ..

KNE(C)3-YS

A2(-) Y21 14 .. ..

K4 K5

S1, S2: Switches

S1 : no cross fault detection S2 : automatic start

2-channel safety gate monitoring

on
E
sliding guard closed

A1(+) Y11 Y1 Y2 Y12 Y22 13 .. ..

KNE(C)3-YS

A2(-) Y21 14 .. ..

Activated NO contact
(contact position: closed)

S1, S2: Switches

S1 : no cross fault detection S2 : manual start

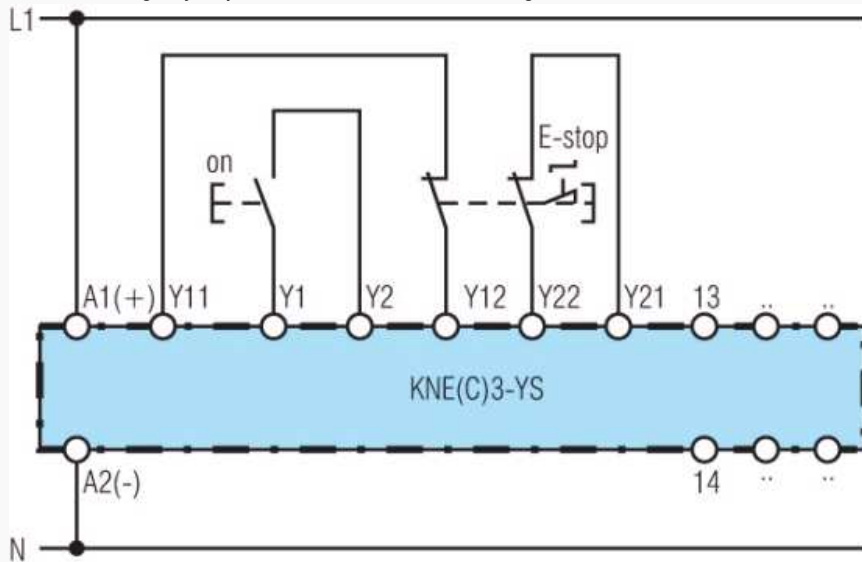**Contact reinforcement by external contactors, 2-channel controlled**
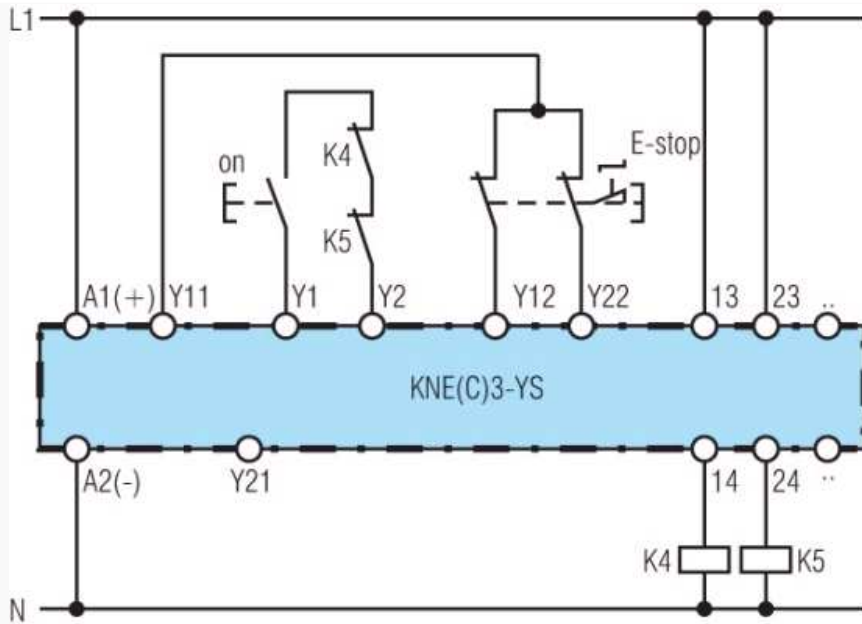
S1, S2: Switches

For currents > 8 A, the output contacts can be reinforced by external contactors. Functioning of the external contactors is monitored by looping the NC contacts into the start circuit (Y1-Y2)

Applications

2-channel emergency stop circuit with cross fault monitoring

S1, S2: Switches

S1 : cross fault detection S2 : manual start