



# Emergency STOP relay

## NST-3.2

- Status-/fault indication via LEDs
- 3 NO safety outputs
- 1 NC output
- Short circuit monitoring

What can Duelco emergency stop relay NST-3.2 offer you?

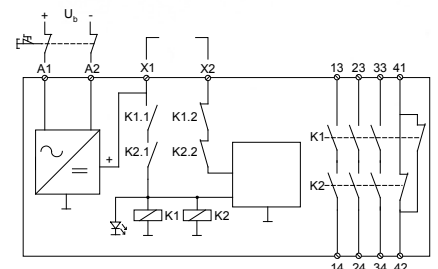
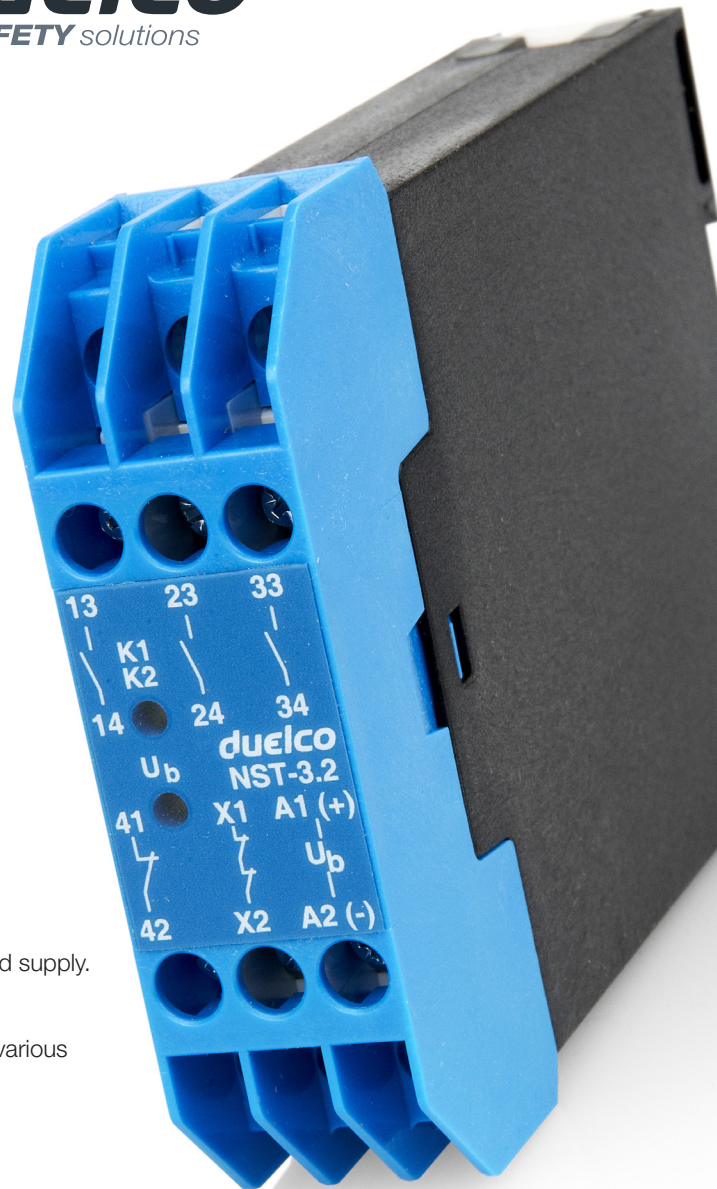
- Simplicity - Fast and easy installation via user friendly connection examples.
- Cat. 3 safety level with 3 NO duplicated output contacts.
- Status-/fault indication. LED indication of output status and supply. The LED signalling can reduce trouble shooting time.
- 8-36VDC version suitable for trucks, loaders, cranes and various construction machines.

Technical facilities regarding safety requirements:

- Forced contacts
- Doubling of output contacts
- Internal / external redundancy (for two-pole E-stop)
- Manual and automatic reset

User's advantages:

- Performance level d acc. to EN ISO 13849-1, cat. 3
- 3 NO contacts
- Voltage versions: 24-29V DC/24V AC, 12V DC and 8-36V DC
- 22,5 mm slimline housing
- LED indication of supply + output status of K1, K2
- Complies with MD, EMC, LVD (98/37/EC, 89/336/EEC & 93/68/EEC)



## Operation description

The power supply is connected to the terminals A1(+) and A2(-). When not activated, the relay's NO contacts 13-14, 23-24 and 33-34 are open and the NC contact 41-42 is closed. If the emergency stop is deactivated and the monitoring circuit detects, that the relay function is correct, the relay can be started by activating a reset contact between

the terminals X1 and X2. This switches on the NO contacts 13-14, 23-24, 33-34 and the NC contact 41-42 will open. The light-emitting diode for the relay illuminates. If the emergency stop is activated, the relays K1 and K2 will be deactivated. So the current paths 13-14, 23-24, 33-34 are open and 41-42 is closed. After resetting of the emergency stop the NST-3 will be ready for activation again, provided that the monitoring

circuit not detects any defects.

N.B! Automatic reset can be provided by connecting the terminals X1 / X2 permanently.

## Technical data NST-3.2

Electrical data	
Supply voltage (NB! Common Power Supply)	A: 12V DC, B: 8-36V DC C: 24-29V DC/24V AC
Voltage range	0,90 ... 1,1 U <sub>B</sub>
Frequency (AC-type)	50 ... 60 Hz
Power consumption	~ 2,5 VA
Conductor data	
Max. cross section of conductor, Solid thread:	2 x 2,5 mm <sup>2</sup>
Multiwire with ferrule:	2 x 1,5 mm <sup>2</sup>
Cable type	60/75 or 75°C copper (CU)
Max. overall cable resistance, input terminals	A1 - A2, X1 - X2: < 110 Ohm Ω
Capacity	150 nF/km
Temperature	+25° C
Contact data	
Contact-allocation	3 NO / 1 NC
Contact type	Positive guided relay
Contact material	AgSnO <sub>2</sub> 0,5μ Au
Switching voltage	250V AC, 24V DC
Switching current	6 A
Max. switching capability DIN EN 60947-5-1	AC 15 230V / 5 A; DC 13 24V / 5 A
Max. switching capacity	1380 VA (ohms load)
Mechanical lifetime	>10 millions
Creeping distance and clearance DIN VDE 0160	Pollution grade 2: Over voltage category 3 / 250 V Basis isolation: Over voltage category 3 / 250 V
Reactivation time by emergency stop	<60 ms.
Mechanical data + various	
Housing material	Polycarbonate
Dimensions (WxHxD)	22,5 x 82 x 98,8 mm; 22,5 x 82 x 118,2
Mounting	Click-fastening for DIN-Rail
Max tightening torque	<1 Nm
Weight AC/DC	~ 250 g / ~ 200 g
Storage temperature	-30 - +70° C
Operating temperature	-30 - +50° C
Enclosure rating, Terminals, Housing	IP 20 (DIN VDE 0470); IP 40 (DIN VDE 0470)
Certification	
Tested in acc. with PL / Category MTTFd (years)	EN ISO 13849-1 d / 3 DC 125,80 years AC 125,65 years
DC	89%

## Order information:

Description	Article no.
NST-3.2 24-29V DC / 24V AC	42042248
NST-3.2 12V DC	42042228
NST-3.2 8-36V DC	42042237

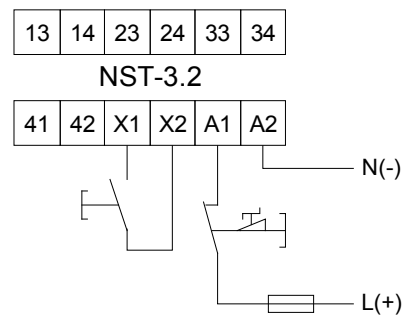
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Systemvej 8  
DK-9200 Aalborg SV

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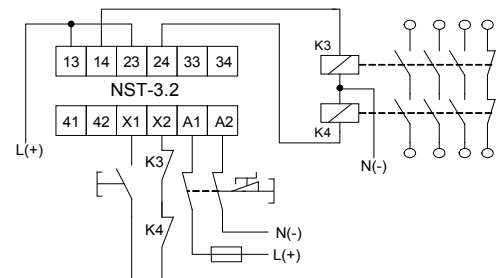
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## Connection examples:

1-channel operation



Connection of external relays



1-channel operation with monitored reset (external contacts)

