

duelco
SAFETY solutions

Emergency STOP relay

NST-2002.2

- Status-/fault indication via LEDs
- 3 NO safety outputs
- Short circuit monitoring
- Suitable for light curtain applications

What can Duelco emergency stop relay NST-2002.2 offer you?

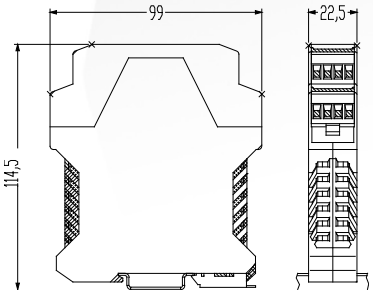
- Simplicity - Fast and easy installation via user friendly connection examples.
- Cat. 4 safety level with 3 NO duplicated output contacts.
- Status-/fault indication. LEDs for indication of the status of the internal relays, the outputs and the supply. The LED signalling can reduce trouble shooting time.

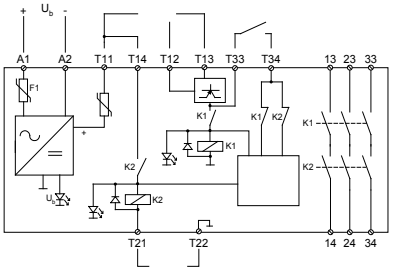
Technical facilities regarding safety requirements:

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

User's advantages:

- Performace level e acc. to EN ISO 13849-1, cat. 4
- STOP category 0
- 3 NO contacts, 250 V AC / 6A / 1380VA
- 2-channel operation with short circuit protection
- 1-channel operation
- Supply voltage 21-29V 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

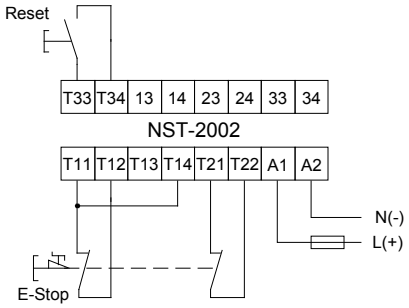
The power supply is connected to the terminals A1(+) and A2(-). When not activated, the relay's NO contacts 13-14, 23-24 and 33-34 are open. If the emergency stop is de-activated, and the monitoring circuit detects that the relay function is correct, the relay can be started by activating a reset switch between the terminals T33 and T34 (automatic or normal reset). This switches on the NO contacts 13-14, 23-24, 33-34 and the K1 and K2 LEDs illuminate . If the emergency stop is activated, the relays K1 and K2 (output 13-14, 23-24 and 33-34) will be deactivated. A short circuit between the two emergency stop switches will deactivate the NST-2002.2 via the internal PTC-fuse (i.e. the emergency stop relay can be reset again when the short circuit/ error is corrected!).

Technical data NST-2002.2

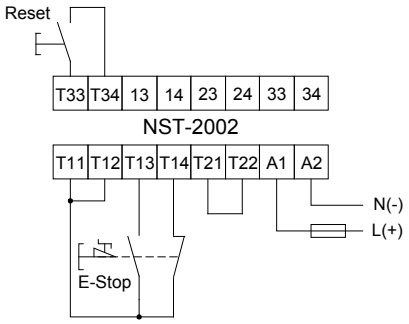
Electrical data	
Supply voltage (NB! Common Power Supply)	21-29V DC
Voltage range	0,90 ...1,1 U_B
Frequency (AC-type)	50 ... 60 Hz
Power consumption	< 3,5 VA
Conductor data	
Max. cross section of conductor, Solid thread: Multiwire with ferrule:	 1 x 2,5 mm² 1 x 2,5 mm²
Cable type	60/75 or 75°C copper (CU)
Max. overall cable resistance, input terminals	~ 50 Ω
Temperature	+25° C
Contact data	
Contact-allocation	3 NO
Contact type	Positive guided relay
Contact material	$AgSnO_2$
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	1500 VA
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
Cut-out time by emergency stop	< 20 ms.
Mechanical data + various	
Housing material	Polyamid PA 6.6
Dimensions (WxHxD)	22,5 x 114,5 x 99 mm
Mounting	Click-fastening for DIN-Rail
Max tightening torque	<1 Nm
Weight AC/DC	~ 250 g
Storage temperature	-30 - +70° C
Operating temperature	-25 - +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) DC CCF	EN ISO 13849-1 e / 4 AC15 / DC13: = 106,73 years / 106,78 years 99% high achieved

Connection examples:

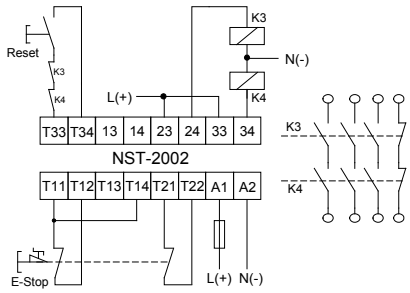
2-channel operation with short circuit protection



2-channel operation with NO/NC



Connection of external relays



Order information:

Description	Article no.
NST-2002F 24V DC	42042222

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