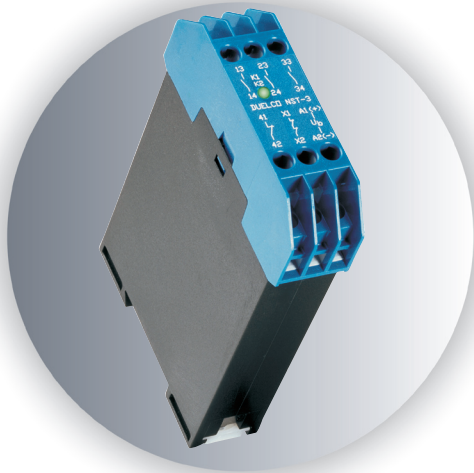


Duelco Safety Technique



Emergency stop relay NST-3.2

- Slimline relay
- Easy installation and maintenance
- Forced contacts
- Status-/fault indication via LEDs
- 3 NO safety outputs
- 1 NC signal output

APPROVALS

Authority	Underwriters Laboratories	
NST-3.2	●	

● Approved

SAFETY CATEGORY, EN 954-1: 2/3

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

- **Simplicity**
Fast and easy installation via user friendly connection examples
- **Contact load: AC 6 A / DC 6 A**
- **Protection against reverse polarity**
- **3 NO duplicated output contacts**
- **Status-/fault indication**
LED indication of output status and supply
- **Design is based on the European Standard, EN 60204-1**
- **Complies with MD, EMC, LVD (98/37/EC, 92/31/EEC and 73/23/EEC)**

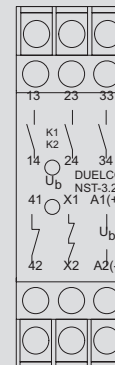
Technical facilities regarding safety requirements:

- ☑ Forced contacts
- ☑ Doubling of output contacts
- ☑ Internal redundancy
- ☑ Manual, automatic reset

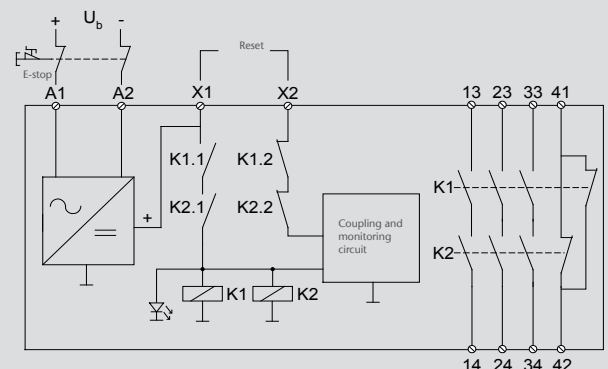
User's advantages:

- ☑ Safety category 2/3 cf. EN 954-1
- ☑ 3 NO contacts
- ☑ Multivoltage: 24V AC/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)

Front layout



Block diagram



Distributors:

Australia: Sentec P/L, +61 738481144 • Austria: tvs, +43 512 304161 • England: OEM Automatic Ltd, +44 1162849900 • Estonia: Vitech Oü, +37 256958128 • Finland: OEM Automatic OY, +358 24120400 • France: AE&T, +33 559060600 • Iceland: Samey HF, +354 5105200 • New Zealand: Electropar Limited, +64 92742000 • Norway: Autic System AS, +47 33300950 • Poland: CONTEC Sp. Z.o.o, +48 618108350 • Spain: Star Automation S.L., +34 938403217 • Sweden: Automation System AB, +46 41369220 • Switzerland: Bachofen AG, +41 19441111 • Taiwan: Chinguan Enterprise Co. Ltd, +886 422336838 • The Netherlands (including Belgium and Luxemburg): forTop, +31 365219120 • Turkey: SIMEKS, +90 2122386963 • USA: EMS Controls Inc, +001 9416379669

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.

Order information

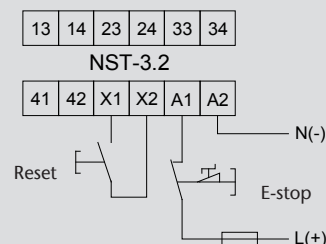
NST-3.2	Article no.
24 V AC/DC	42042248

Technical data NST-3.2

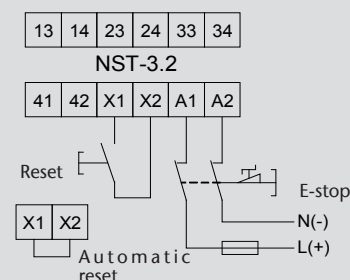
Supply voltage (NB! From one common supply):	24V AC/DC
Supply tolerance:	± 10%
Fuse, Power supply:	T315 mA
NO / NC:	F 6 A / F 2 A
Max. ripple, DC:	± 1V
Max. inrush current, output	20 A < 100 ms.
Frequency:	47-52/57-62Hz
Consumption:	~ 2,5 VA
# NO / NC / CO:	3 / 1 / 0
Contact material:	AgSnO ₂
Max. contact voltage:	250 VAC / 24 VDC
Max. contact current:	6A AC / 6A DC; Cosφ=1; @20°C
Max. effect, 13-14, 23-24, 33-34:	AC:1500 VA / DC:140 VA
Max. inrush current, output contacts:	20 A < 100 ms.
Min. cut-in time by nominal voltage, DC:	AC: <130 ms.
Min. cut-in time by nominal voltage, AC:	DC: <100 ms.
Cut-out time by activation of emergency stop:	<60 ms.
Reactivation time:	>95 ms.
Terminal voltage:	X1-X2 = 24VDC
Terminal current at 24V, Static:	X1-X2, A1-A2 < 45 mA
Peak:	X1-X2, A1-A2 < 1,4 A
Max. overall cable resistance, input terminals:	A1-A2, X1-X2 ~ 100 Ω
Status indication:	2 x LED
Enclosure, Housing / Terminals:	IP40 / IP20
Enclosure material:	Polycarbonate
Temperature, Operation / Stock:	-30 - 50°C / -30 - 70 °C
Max. crosssection of conductor, Solid thread / Multiwire with ferrule:	1 x 2,5 mm ² / 1 x 2,5 mm ²
Weight AC/DC:	~ 250 g / ~ 200 g
Mounting, DIN-rail / Mounting bracket:	DIN EN 50022-35 / M4 (2 pieces.)
Terminal tightening torque:	<1 Nm
Dimensions, WxHxD (mm):	22,5 x 82 x 98,8
Mechanical lifetime (number of activations):	>10 millions
Insulation class:	4kV/2, VDE 0110-1 / -2
EMC requirements:	EN 61000-6-3 EN 61000-6-2

Connection examples

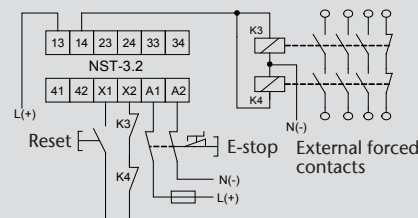
1. 1-channel operation



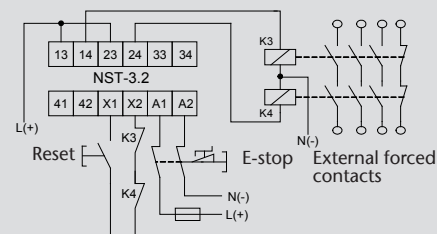
2. 2-channel operation (1-channel-)



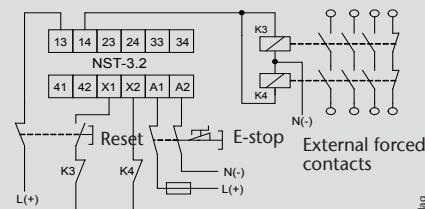
3. Connection of external relays - 1-channel



4. Connection of external relays - 2-channel



5. Monitoring of reset and external contacts



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