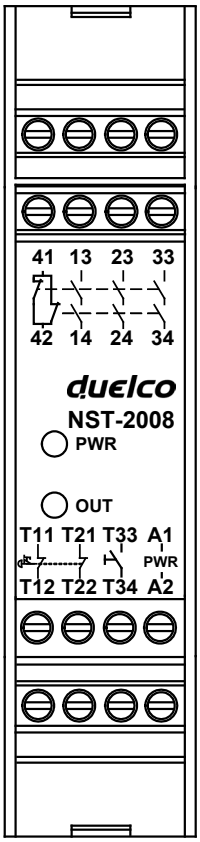


duelco SAFETY solutions

Emergency STOP relay

NST-2008



- Reliable and a high safety level
- Status-/fault indication via LED
- 3 NO safety outputs
- 1 NC status output
- Short circuit monitoring
- Current limitation for reed contacts

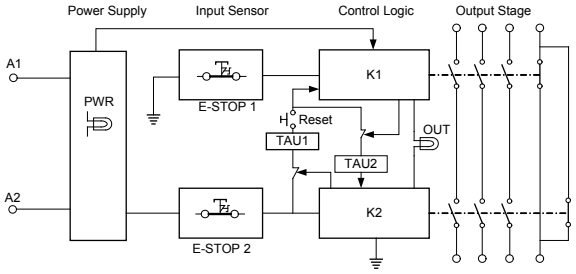
What can the new Duelco emergency stop relay NST-2008 offer you?

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

With the new design and a simple and safe layout, the Duelco NST-2008 is the right choice!

Technical facilities regarding safety requirements:

- Forced contacts
- Doubling of output contacts
- Internal / external redundancy (for two-pole E-stop)
- NST-2008F: Manual and automatic reset



User's advantages:

- Performance level e
- STOP category 0
- 3 NO contacts, AC1: 230 V AC / 6A ; DC1: 24V / 6A
- 2-channel operation with short circuit protection
- Voltage versions: 24V DC
- No requirements concerning simultaneity between CH1 and CH2
- 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(-) and the power supply LED Ub will illuminate green. When not activated, the relay's NO contacts 13-14, 23-24, and 33-34 are open, 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 reset by closing a contact between the terminals T33 and T34. This closes the NO contacts 13-14, 23-24, 33-34 and the NC contact 41-42 will open. The LED OUT will illuminate.

If the emergency stop is activated, the relays K1 and K2 will be deactivated. This opens the current path 13-14, 23-24, 33-34 and 41-42 closes.

After deactivation of the emergency stop the NST-2008 will be ready for reactivation provided that the monitoring circuit detects that the relay is functioning correctly. A short circuit between the two emergency stop switches will deactivate the NST-2008 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-2008

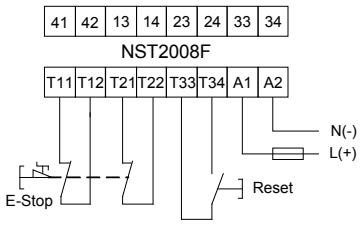
Electrical data	
Supply voltage (NB! Common Power Supply)	24V DC
Voltage range	0,90 ...1,1 U_B
Frequency (AC-type)	50 ... 60 Hz
Power consumption	~ 24V DC: 1,5 W
Conductor data	
Max. cross section of conductor, Solid thread: Multiwire with ferrule:	 2 x 1,5 mm² 2 x 1,5 mm²
Cable type	60/75°C copper wire only
Max cable lengths (input circuit)	T11/T12-T21/T22: 47 Ω - T33/TT34: 22 Ω
Capacity	150 nF/km
Temperature	-25 - +60° C
Contact data	
Contact-allocation	3 NO / 1 NC
Contact type	Positive guided relay
Contact material	$AgSnO_2$ or comparable material
Switching voltage	240V 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	1200 VA (ohms load)
Mechanical lifetime	>10 million activations
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	0,5 s
Cut-out time by emergency stop	<13 ms, 24V DC
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	0,4 Nm
Weight	165 g
Storage temperature	In dry areas
Operating temperature	-20 - +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 / 4 386 high 99% high achieved

Order information:

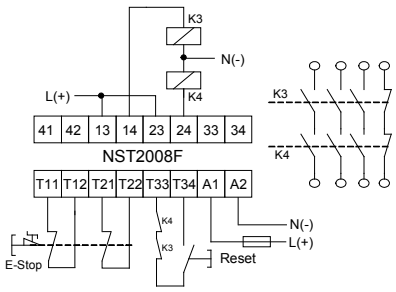
Description	Article no.
NST-2008F 24V DC	42080010

Connection examples:

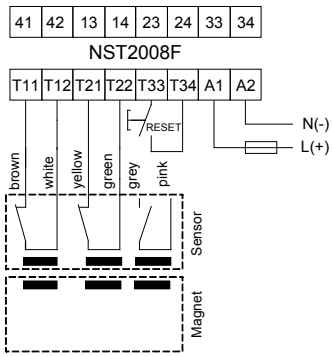
2-channel operation (with opposite between channels)



2-channel operation with external contacts, contact monitoring and short circuit protection



2-channel operation with magnetic contacts (Reed contacts)



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