

NST-3

CE Approved:
MD, EMC, LVD

Category 2/3, EN 954-1

(Estimated category by 2-channel operation)

- Inexpensive
- Forced contacts
- Doubling of output contacts
- Internal redundancy
- 22,5 mm slimline relay

Function:

Small and vigorous emergency stop relay for monitoring of emergency stop and other safety arrangements. Furthermore the relay is useful as an inexpensive extension module, when additional output contacts are needed.

Technical facilities regarding safety requirements:

- Forced contacts
- Doubling of output contacts
- Internal redundancy

Approvals:



● Approved

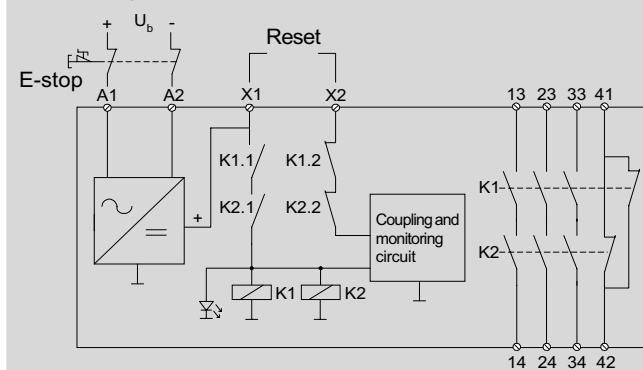
UL-Rating: Pilot Duty, B300; R300

User's advantages:

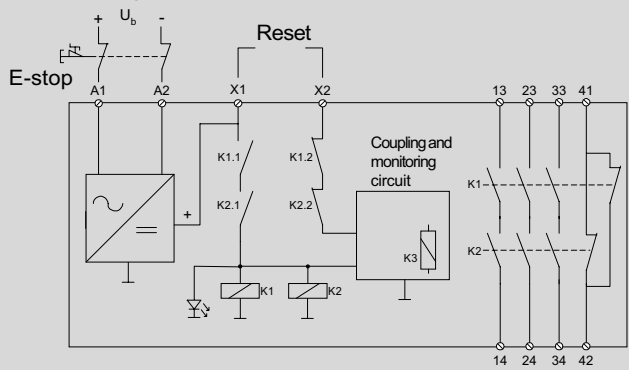
- 3 NO safety outputs
- 1 NC signal output
- Contact load: AC 6 A / DC 6 A
- Various supply voltages; 12VDC, 24VAC/DC og 48VDC
- Manual / automatic reset
- AC / DC supply results in protection against reverse polarity
- Connection of external relays
- LED indication of output status
- 22,5 mm housing for space-saving DIN rail mounting
- Design is based on the European Standard, EN 60204-1
- Complies with MD, EMC, LVD (98/37/EC, 89/336EEC and 93/68EEC)

➔ **Technical specifications and physical dimensions, see page 44-45**

Block diagram, NST-3 (manual, automatic reset):



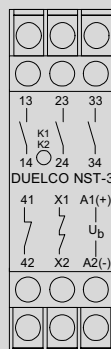
Block diagram, NST-3MR (monitored reset):



Order information

Article name	Article no.	Note: NST-3L and NST-3 12 V DC is in a low housing, D=98,8mm
NST-3, 12 V DC	42041128	
NST-3, 48 V DC	42040248	
NST-3,24 V AC/DC	42041248	
NST-3L, 24 V AC/DC	42041243	
NST-3MR, 24 V AC/DC	42041253	

Front layout:



Terminal description:

- A1(+):** Power supply (+)
- A2(-):** Power supply (-)
- X1*:** Reset, output
- X2*:** Reset, input
- 13-14:** NO safety output
- 23-24:** NO safety output
- 33-34:** NO safety output
- 41-42:** NC signal output

*Must be used by normal and automatic reset

Operation description and connection examples

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.

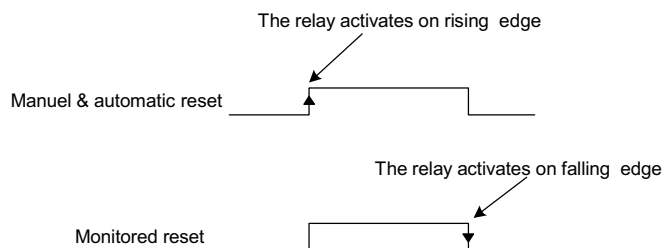
If the emergency stop is activated, the relays K1 and K2 will be deactivated. So the current paths 13-14, 23-24, 33-34 are open and 41-42 is closed.

After resetting of the emergency stop the NST-3 will be ready for activation again, provided that the monitoring circuit not detects any defects.

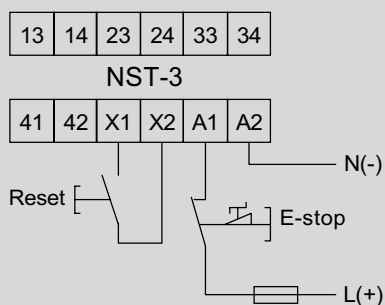
N.B! Automatic reset can be provided by connecting the terminals X1 / X2 permanently.

NST-3 is also available in a version (NST-3MR) which operates with monitored reset. This version can not be used for manual or automatic reset.

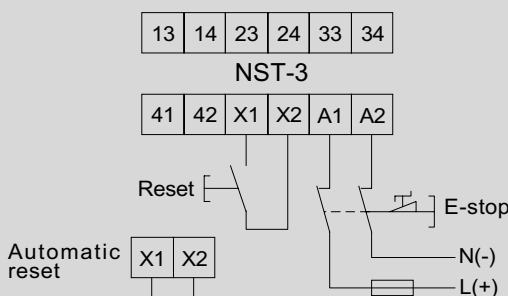
Difference between normal and monitored reset



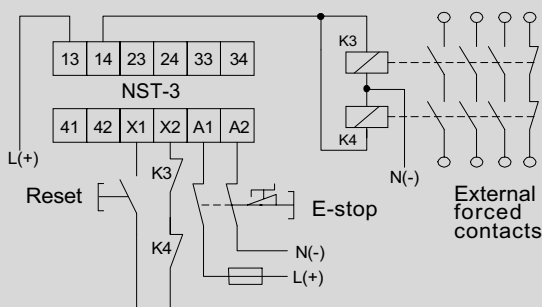
1 1-channel operation



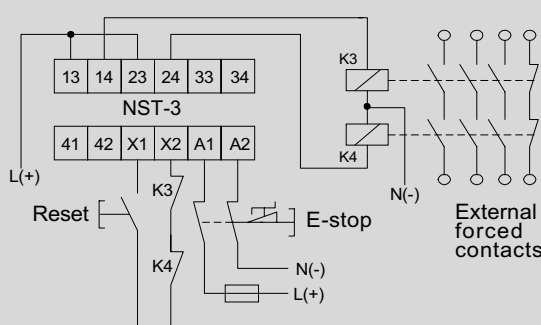
2 2-channel operation (1-channel-)



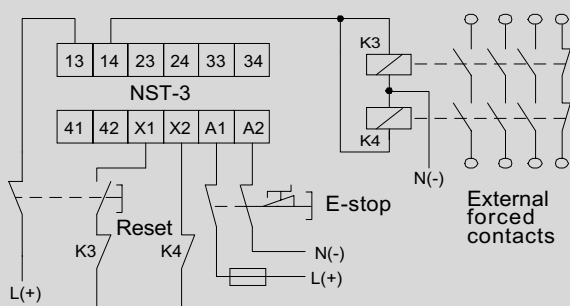
3 Connection of external relays - 1-channel operation



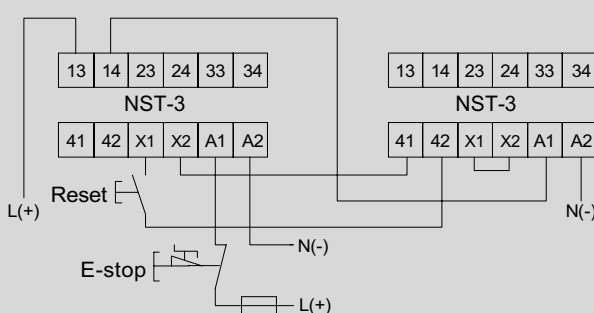
4 Connection of external relays - 2-channel operation



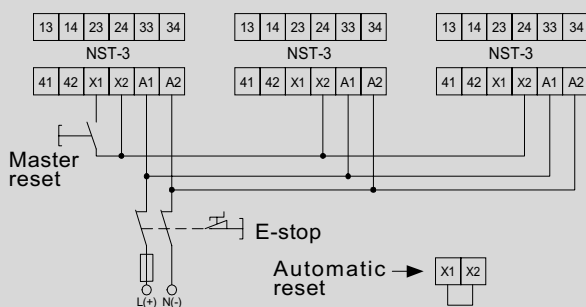
5 Monitoring of reset and external contacts



6 NST-3 acting as an extension module (1-channel)



7 NST-3 in a parallel connection with master reset



8 NST-3 in a parallel connection

