

Pressure sensing mat safety module NT12D

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- Safety Category 3 together with SM Safety mats according to EN 954-1
- Redundant and self monitoring circuit
- Mat integrity monitoring
- Four wire input
- Feedback circuit for external contactors monitoring
- Manual or automatic restart
- Failure diagnosis by LEDs
- Approval: TÜV NORD

Product Description

Pressure sensing mat safety module in conformity with EN 954-1, EN 60904-1, EN 292-1,-2 and EN 1760-1. The module has been designed to be employed along with the SM.. Safety mat; this safety system

constitute an effective and reliable safety package of Safety Category 3. The module is provided with safety output contacts with force guided relay contacts, four wire input and manual or automatic restart.

Ordering Key

NT12 D

Housing _____
 Application _____
 Controlled Devices _____
 Safety Outputs _____
 Safety Category _____

Electrical Specifications

Power supply	24 VAC ± 10% 50-60Hz / 24 VDC ± 10%
Power consumption	5 VA / 5 W
Safety outputs	2 NO
Auxiliary outputs	--
Contact ratings	
Resistive loads AC1	6 A @ 230 VAC
DC12	6 A @ 24 VDC
Small inductive loads AC15	1.5 A @ 230 VAC
DC13	1.2 A @ 24 VDC

Safety output contact fuse protection	4 A fast or 1 A delayed
Insulation voltage	none
Supply to input	4 kV 1.2/50µs
Supply to output	4 kV 1.2/50µs
Input to output	Pollution degree 2 Overvoltage category III

Time Specifications

Delay on energisation	2 sec ± 15%
Delay on de-energisation	≤ 150 ms (NT12D+SM)
Recovery time	≥ 150 ms
Channel simultaneity	∞

Environmental Specifications

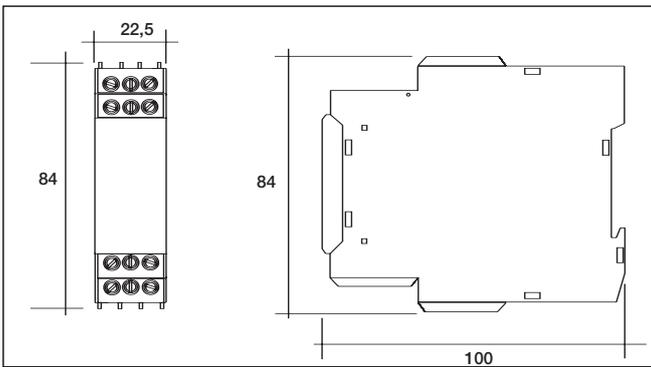
Operating temperature	0°C ... + 55°C
Storage temperature	-25°C ... + 55°C

Mechanical Specifications

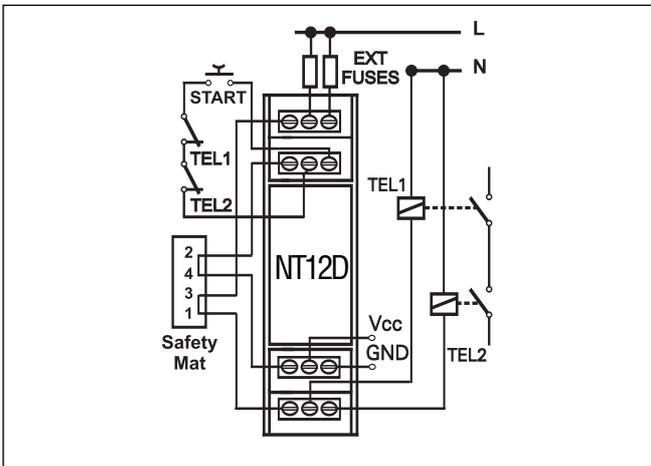
Protection degree terminals	IP 20
Protection degree housing	IP 30
Housing material	ABS
Housing type	22.5 mm housing models
Mounting	DIN rail

Max cross section of external conductors	2.5 mm ² flexible wire 4 mm ² rigid wire
Dimensions	22.5 x 84 x 100 mm
Weight	160 g

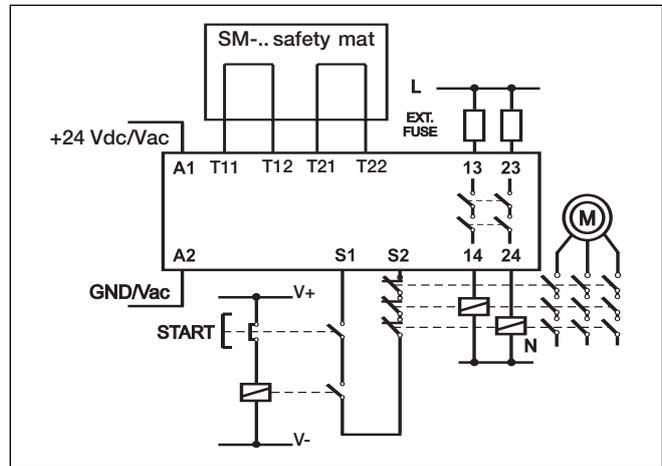
Dimensions



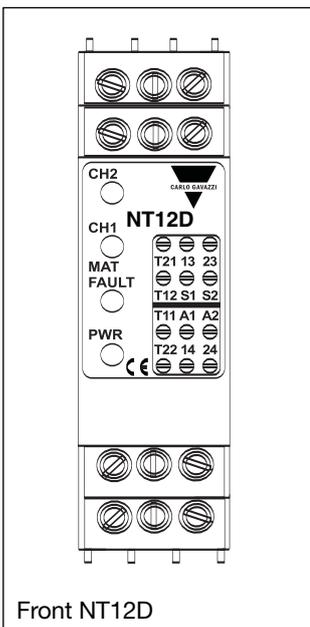
Wiring Diagrams



Application



Connection Sample



Connections

Terminal	Function/Connection
A1	+24 VDC or AC supply
A2	GND or AC supply
S1-S2	START (automatic or manual) and feedback input for external contactors monitoring
13-14	First safety output (NO)
23-24	Second safety output (NO)
T11-T12	Safety mat layer 1 inputs
T21-T22	Safety mat layer 2 inputs