

Two hand safety Modules ND12D

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- Safety Category III C according to EN 574
- Safety Category 4 according to EN 954-1
- 2 NO safety outputs
- 1 PNP auxiliary output
- 1 NC relay auxiliary output
- Dual channel input
- Max delay between input 500 ms
- Automatic RESET
- Self monitoring
- Failure diagnosis by LEDs
- Approvals: TÜV NORD, UL

Product Description

Two hand Safety module according to EN 60204-1, EN 292-1 /-2, EN 574 and EN 954-1, safety category IIIC according to EN 574.

These safety modules are suited to be used in applications at the highest risk level as presses and punches.

Ordering Key

ND12 D 230

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

Type Selection

Power supply	References
24 VAC/VDC	ND12D
110 VAC	ND12D110CG
230 VAC	ND12D230CG

Electrical Specifications

Power supply	ND12D	24 VAC -15/+10% 50-60 Hz 24 VDC -15/+10%	Auxiliary output Resistive loads AC1 Small inductive loads AC15	5 A @ 230 VAC 1.5 A @ 230 VAC
	ND12D110CG ND12D230CG	110 VAC -15/+10% 50-60 Hz 230 VAC -15/+10% 50-60 Hz		
Power consumption	4 VA /4 W		Contact fuse protection	6 A fast or 4 A delayed
Safety outputs	2 NO		Insulation voltage	Pollution degree: 2 Overvoltage Cat.: 3/250 V 24 VAC/DC xxx AC none 4 kV 1.2/50µs 4 kV 1.2/50µs 4 kV 1.2/50µs 4 kV 1.2/50µs 4 kV 1.2/50µs
Auxiliary outputs	1 NC Relay 1 PNP		Supply to input Supply to output Input to output	
Contact ratings				
Safety output				
Resistive loads AC1	8 A @ 230 VAC			
Small inductive loads AC15	3 A @ 230 VAC			
DC13	4 A @ 24 VDC			

Time Specifications

Delay on energisation	< 150 ms
Delay on de-energisation	< 30 ms
Channel simultaneity	< 500 ms

Environmental Specifications

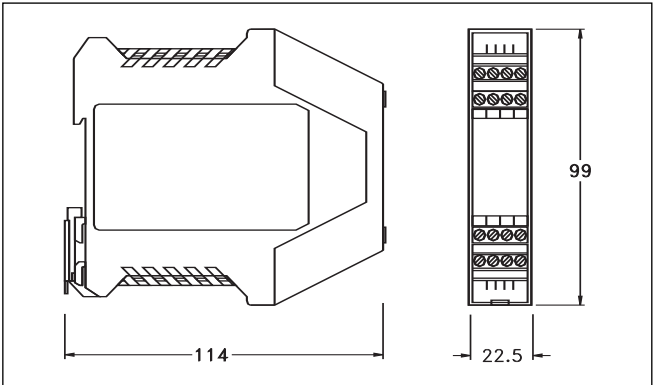
Operating temperature	-25°C ... + 55°C
Storage temperature	-25°C ... + 65°C

Mechanical Specifications

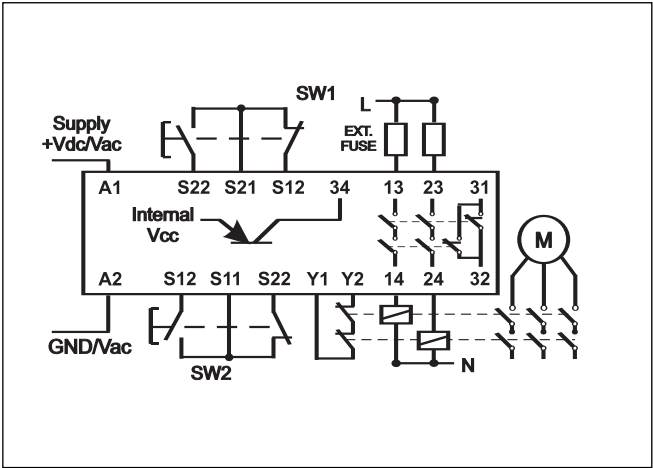
Protection degree terminals	IP 20	Max cross section of external conductors	2.5 mm² flexible wire 2.5 mm² rigid wire
Protection degree housing	IP 40	Dimensions	22.5 x 99 x 114 mm
Housing material	Polyamid PA6.6	Weight	ND12D 170 g ND12D110CG, ND12D230CG 240 g
Housing type	22.5 housing models		
Mounting	DIN rail		



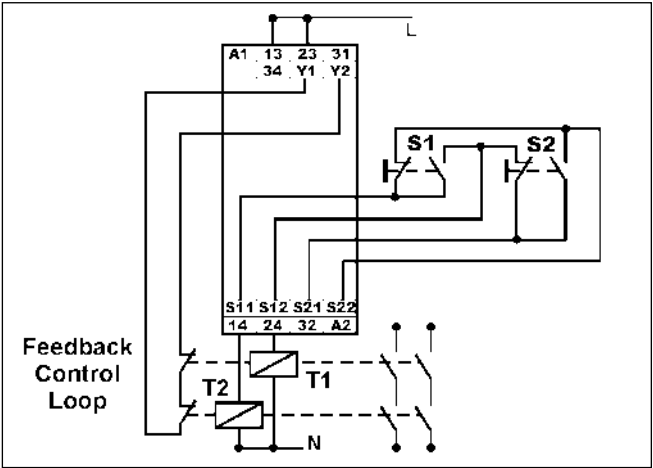
Dimensions



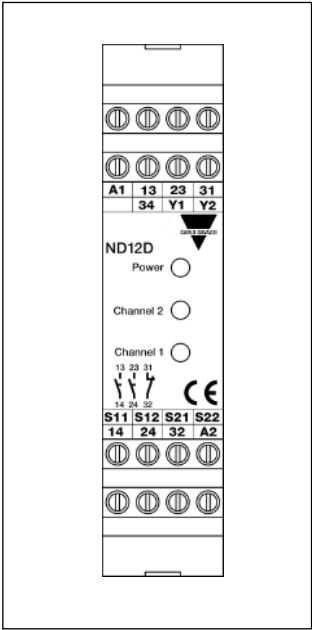
Wiring Diagrams



Application



Connection Sample



Connections

Terminal Function	Connection
A1	+24 VDC or AC supply
A2	GND or AC supply
S11-S12-S22	First input button (S1)
S21-S12-S22	Second input button (S2)
Y1-Y2	Feedback control loop
34	PNP aux output (collector of a PNP transistor with emitter connected internally to Vcc)
13-14	First safety output (NO)
23-24	Second safety output (NO)
31-32	Relay auxiliary output (NC)