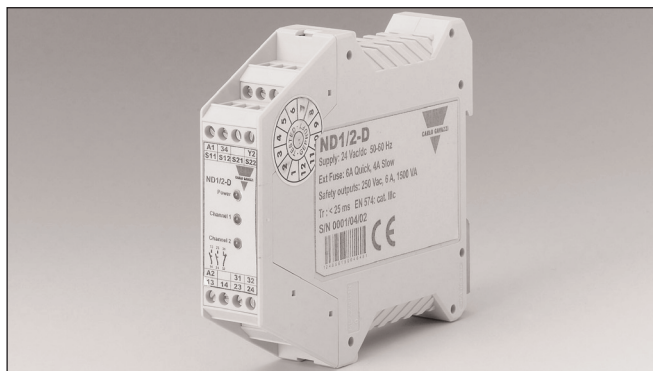


Two Hand Safety Modules ND1/2-D, ND1/2-D/230

CARLO GAVAZZI



- 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:



Product Description

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

ND1/2-D/230

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

Type Selection

Power supply	References
24 VAC/VDC	ND1/2-D
110 VAC	ND1/2-D/110
230 VAC	ND1/2-D/230

Electrical Specifications

Power supply	ND1/2-D	24 Vac -15/+10% 50-60 Hz	1 NO PNP
	ND1/2-D/110	24 Vdc -15/+10%	
	ND1/2-D/230	110 Vac -15/+10% 50-60 Hz	
Power consumption		230 Vac -15/+10% 50-60 Hz	
Power consumption		2 VA /2 W	
Input current/voltage		150 mA @ 24 Vdc, without load	
Safety outputs		2 NO	
Auxiliary outputs		1 NC Relay	
Switching voltage / current / capability	ND1/2-D	24 Vdc / 250 Vac / 6A / 1500 VA	
	ND1/2-D/110	110 Vac/6A/1500VA	
	ND1/2-D/230	230 Vac / 6A / 1500 VA	
Contact fuse protection		6 A fast or 4 A delayed	
Insulation voltage		Pollution degree: 2 Overvoltage Cat.: 3/250 V Basis insulation: Overvoltage Category: 3 / 250 V Protective Separation : Ov. Cat. 2	

Time Specifications

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

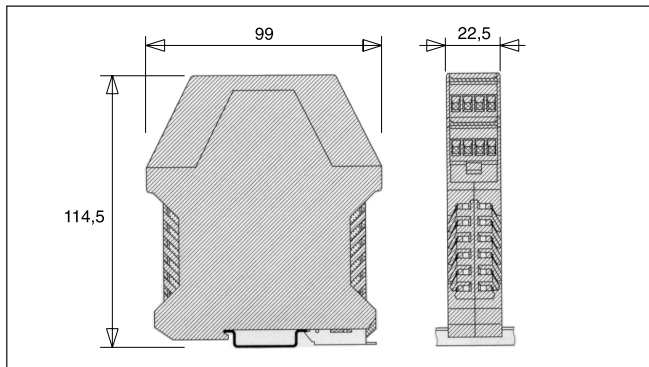
Environmental Specifications

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

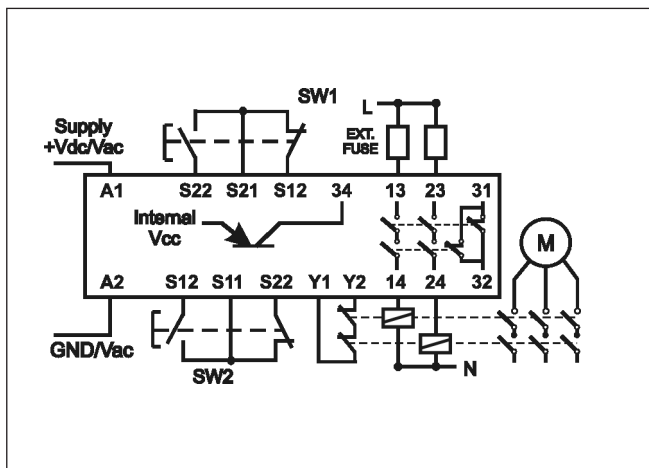
Mechanical Specifications

Protection degree terminals	IP 20	Max cross section of external conductors	2.5 mm ² flexible wire
Protection degree housing	IP 40		2.5 mm ² rigid wire
Housing material	Polyamid PA6.6	Dimensions (H x W x D)	99x22.5x114.5 mm
Housing type	22.5 housing models	Weight	
Mounting	DIN rail	ND1/2-D	170 g
		ND1/2-D/110	240 g
		ND1/2-D/230	240 g

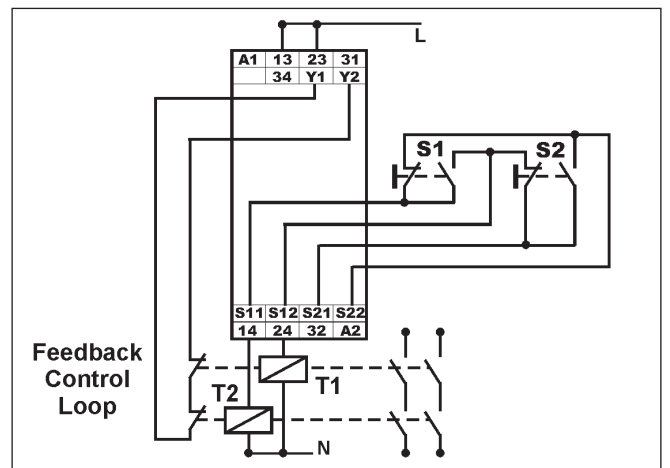
Dimensions



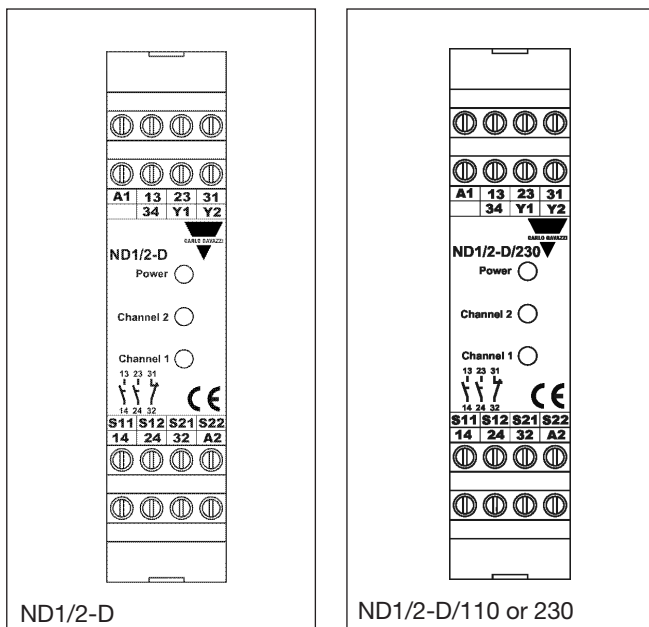
Wiring Diagrams



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 (N.O.)
23-24	Second safety output (N.O.)
31-32	Relay auxiliary output (N.C.)