

Light Curtain Safety Module NL1/3-D



- Safety Category 4 according to EN 954-1
- 3 NO safety outputs, with force guided relay contacts
- 24 Vac / Vdc power supply
- dual channel input
- automatic or manual reset
- self monitoring
- Failure diagnosis by LEDs
- Approvals:



Product Description

Light curtain safety module according to EN 954-1, EN 292-1 and -2 and EN 60204-1. The NL1/3-D is a Safety Category 4 relay to be connected to the safety light curtain SB2 / SB4 series. The whole system can be used for risk category 2 or 4 applications,

depending on the safety light curtain version (SB2 or SB4). The module is provided with 3 NO safety outputs and can be operated in manual or automatic restart mode. It is placed in a 22.5 mm housing.

Ordering Key

NL1/3-D

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

Electrical Specifications

Power supply	24 Vac ± 10% 50-60Hz 24 Vdc ± 10%
Power consumption	2.5 VA / 2.5 W
Input current/voltage	70 mA @ 24 Vdc
Safety outputs	3 NO
Auxiliary outputs	-

Switching voltage/ current /capability	250VAC/24 Vdc/6A/1500VA
Contact fuse protection	6 A fast or 4 A slow
Insulation voltage	Pollution degree: 2 Basis insulation: Overvoltage Category: 3 / 250 V Protective separation: Overvoltage Category: 2

Time Specifications

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

Environmental Specifications

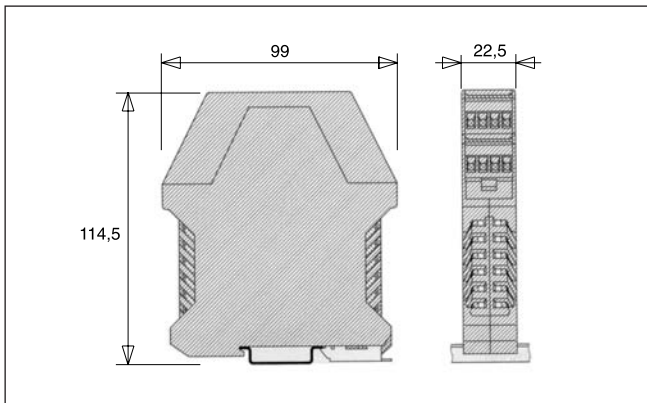
Operating temperature	-25°C to + 55°C
Storage temperature	-25°C to + 65°C

Mechanical Specifications

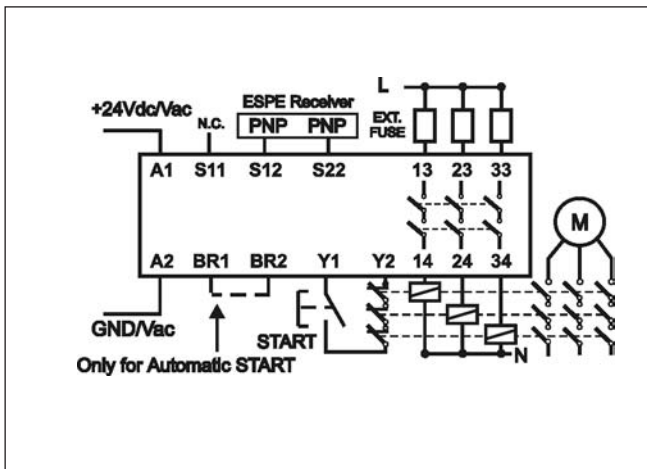
Protection degree terminals	IP 20
Protection degree housing	IP 40
Housing material	Polyamid PA6.6
Housing type	22.5 mm housing models
Mounting	DIN rail

Max cross section of external conductors	2.5 mm ² flexible wire 2.5 mm ² rigid wire
Dimensions (H x W x D)	99x22.5x114.5 mm
Weight	170 g

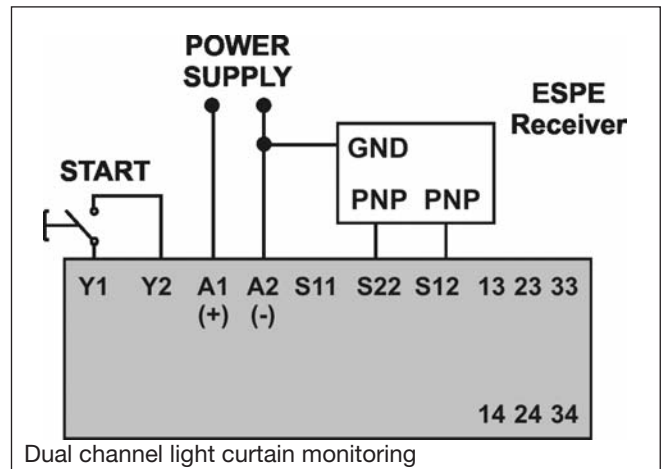
Dimensions



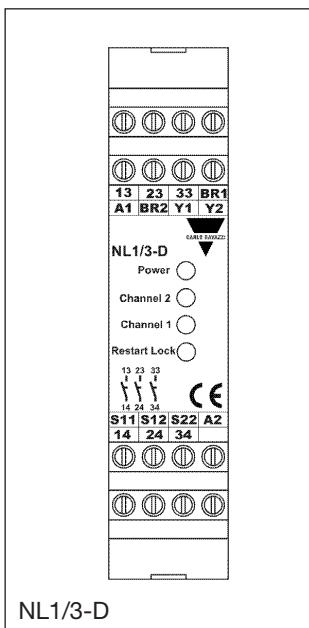
Wiring Diagrams



Application



Connection Sample



Connections

Terminal Function	Connection
A1	+24 Vdc or AC supply
A2	GND or AC supply
S12	First input channel (PNP Channel 1)
S22	Second input channel (PNP Channel 2)
Y1-Y2	START (automatic or manual start)
BR1-BR2	START (only for automatic start)
13-14	First safety output (N.O.)
23-24	Second safety output (N.O.)
33-34	Third safety output (N.O.)