# Light Curtain Safety Module NL1/3-D



NL1/3-D



#### **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.

•	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:



#### **Ordering Key**

Case		
Application		
Controlled Devices		
Safety Outputs		
Safety Category		

#### **Electrical Specifications**

Power supply	24 Vac ± 10% 50-60Hz 24 Vdc ± 10%	Switching voltage/ current /capability	250VAC/24 Vdc/6A/1500VA
Power consumption	2.5 VA / 2.5 W	Contact fuse protection	6 A fast or 4 A slow
Input current/voltage	70 mA @ 24 Vdc	Insulation voltage	Pollution degree: 2
Safety outputs	3 NO		Basis insulation: Overvoltage
Auxiliary outputs	-		Category: 3 / 250 V Protective separation: Overvoltage Category: 2

#### **Time Specifications**

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

#### **Environmental Specifications**

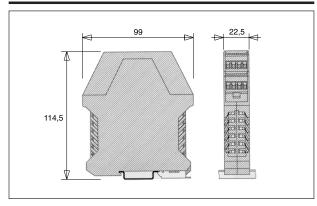
Operating temperature	-25°C to + 55°C
Storage temperature	-25°C to + 65°C

#### **Mechanical Specifications**

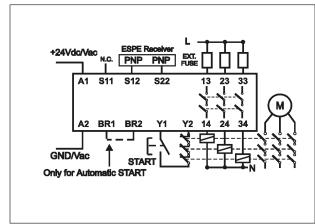
Protection degree terminals	IP 20	Max cross section	
Protection degree housing	IP 40	of external conductors 2.5 mm <sup>2</sup> flexible wire	
Housing material	Polyamid PA6.6	D: : (11 ) 11 ( D)	2.5 mm <sup>2</sup> rigid wire
Housing type	22.5 mm housing models	Dimensions (H x W x D)	99x22.5x114.5 mm
Mounting	DIN rail	Weight	170 g



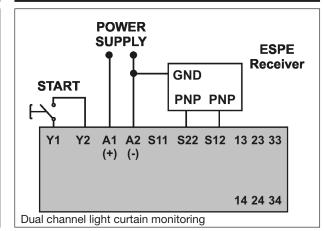
#### **Dimensions**



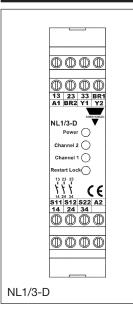
# Wiring Diagrams



### **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 o 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.)	