

Presence Sensing Safety Devices
Safety Light Curtain Interfaces
 SafeShield DeviceNet Module



Description

The SafeShield DeviceNet interface is a nonsafety rated device that communicates diagnostic information from any SafeShield safety light curtain. In a compact 22.5mm DIN rail mounted housing it allows easy wiring and configuration of DeviceNet parameters.

Features

- Connects directly to DeviceNet networks
- Auto baud
- Change of State and strobe messaging
- Rotary DIP switches for MAC ID
- Compact 22.5mm housing
- Diagnostic capabilities
 - Weak signal
 - Alignment: number of beams, number of blocked beams, etc.
 - Output status
 - Setup configuration
 - LED diagnostics
 - System identification: product name, model, etc.
 - System status
 - System settings: fixed or floating blanking, auto power-up, etc.
 - Diagnostic: error codes, cause of lockout, troubleshooting suggestions, etc.

Specifications

Safety Category	Nonsafety rated
Approvals	CE marked for all applicable directives and cULus
Power Supply	24V DC
Power Consumption	1w
Inputs	RS 233 from SafeShield
Outputs	DeviceNet
Power On Delay	1s
Indication LEDs	See Indicator table
Impulse Withstand Voltage	2500V
Pollution Degree	2
Operating Temperature	-5°C to +55°C (+23°F to 131°F)
Enclosure Protection	IP40 (NEMA 1)
Terminal Protection	IP20
Conductor Size	0.2–4mm ² (24–12 AWG)
Torque Settings—terminal screws	0.4–0.5Nm (3.54–4.43lb•in)
Case Material	Polyamide PA 6.6
Mounting	22.5mm DIN rail
Weight	320g (0.71lbs)
Mechanical Life	N/A
Vibration	10-55Hz, 0.35mm
Shock	10g, 16ms, 100 shocks

Indicators

Label	Colour	State	Status
Dnet Status	Red/Green	OFF	Interface not powered, or waiting for Autobaud
		Green ON Steady	Interface active and allocated by master
		Green Flashing	Interface active but not allocated by master
		Red Flashing	Minor correctable fault (baud rate)
		Red ON Steady	Major fault (possible duplicate address)
		Green-Red-Green	Power up sequence
Comm Status	Orange	Off	Internal Fault
		Flashing	Fault or Warning Require User intervention
		On	No Faults or Warnings
OSSD Status	Red/Green	Off	No Safety Communication
		Red	Not Safe, OSSD not active
		Green	Safe, OSSD active

I/O Data

Stroke and Change-of-State Output:

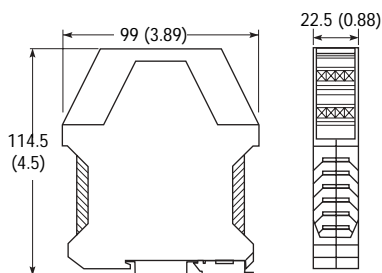
Input Assembly = Status (0)								
Byte 1, Bit	7	6	5	4	3	2	1	0
Status Data	Restart	Beam Strength	Device Warning	Device Fault	0	0	0	OSSD
Input Assembly = Modes (1)								
Byte 2, Bit	7	6	5	4	3	2	1	0
Modes	Restart Mode	Range Mode	Floating Blanking Mode	Fixed Blanking Mode	Resolution Mode	EDM Mode	0	0
Input Assembly = Diagnostic (2)								
Byte 3, Bit	7	6	5	4	3	2	1	0
Diag. Code	Diagnostic Codes							
Input Assembly = Beams (3)								
Byte 4, Bit	7	6	5	4	3	2	1	0
Beam Data	Count of Beams							

Product Selection

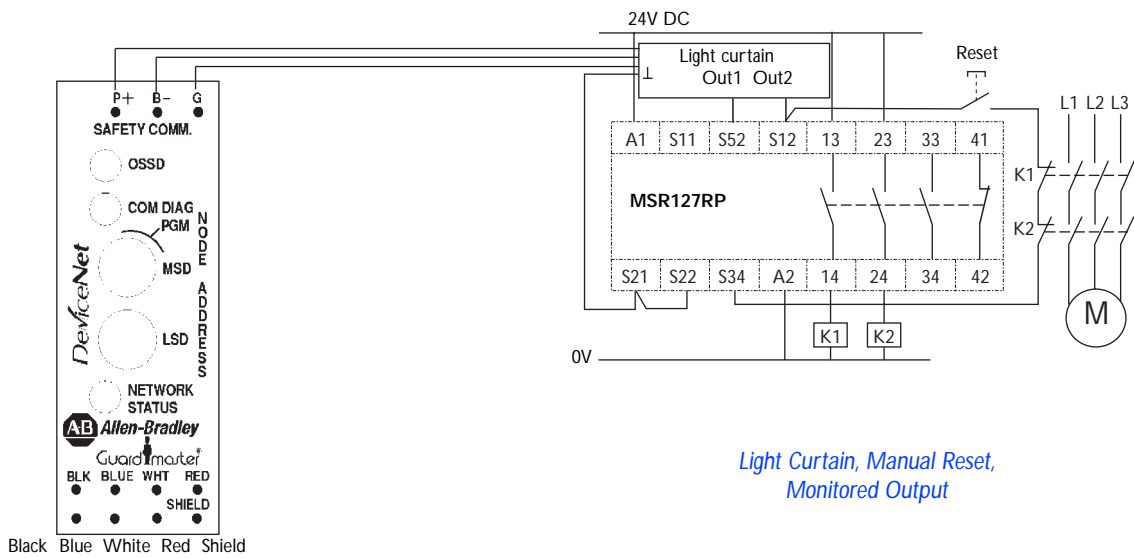
Inputs	Safety Outputs	Auxiliary Outputs	Power Supply	Catalogue Number
Com. from SafeShield	N/A	N/A	24V DC	442L-MDNET

Approximate Dimensions—mm (inches)

Approximate Dimensions are not intended to be used for installation purposes.



Typical Wiring Diagram



Light Curtain, Manual Reset, Monitored Output

DeviceNet Connection