

DPR-1620-NPN-NC

Safety Light Curtain Area Sensor — 10 mm Resolution with 300 mm Protection Height



Version: 1.0 | Date: September 2023 | SKU: SH63

DAPPRA Automation — Industrial Sensor Manufacturer

DPR-1620-NPN-NC

Safety Light Curtain Area Sensor — 10 mm Resolution with 300 mm Protection Height

Product Overview

The DAPPRA DPR-1620 NPN-NC Safety Light Curtain Area Sensor is an industrial safety sensing device designed for machine protection and hazardous area monitoring applications.

Using Infrared IFO Through-Beam Detection technology, the DPR-1620 NPN-NC creates a precise line detection field between the emitter and receiver. When an object enters or interrupts the detection area, the sensor detects the beam interruption and provides an output signal to the industrial control system.

The DPR-1620 NPN-NC belongs to the DAPPRA DPR Series Area Sensor family and is designed for applications requiring reliable optical protection, fast response, compact installation, and industrial environment durability.

Key Product Information

Parameter	Specification
Product Model	DPR-1620 NPN-NC
Product Type	Safety Light Curtain Area Sensor
Brand	DAPPRA
Detection Technology	Infrared IFO Through-Beam Detection
Optical Beam Quantity	16 Beams
Optical Beam Pitch	20mm
Resolution	10mm
Detection Distance	0.1 - 5M
Output Type	NPN
Signal Logic	NC (Normally Closed)

Key Features

1. 16-Beam Infrared Protective Detection Field

The DPR-1620 NPN-NC uses a multi-beam infrared optical structure consisting of 16 infrared beams with 20mm optical pitch and 10mm detection resolution.

2. Fast 0.5ms Response Speed

The DPR-1620 NPN-NC provides 0.5ms response speed for rapid beam interruption detection.

3. NPN-NC Industrial Output Configuration

The DPR-1620 NPN-NC provides NPN transistor output with NC (Normally Closed) signal logic for integration with industrial control systems.

4. Compact Industrial Housing Design

Cover Section Size: 29 x 30mm

Total Height: 346mm

Protection Height: 300mm

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Technical Specifications

General Specifications

Parameter	Specification
Brand	DAPPRA
Series	DPR Series Area Sensor
Model	DPR-1620 NPN-NC
SKU	SH63
Product Type	Safety Light Curtain Area Sensor

Optical Specifications

Parameter	Specification
Detection Technology	Infrared IFO Through-Beam Detection
Light Source	Infrared IFO
Optical Beam Quantity	16 Beams
Optical Beam Pitch	20mm
Resolution	10mm
Detection Distance	0.1 - 5M
Protection Height	300mm

Electrical Specifications

Parameter	Specification
Operating Voltage	DC24V ±10%
Output Type	NPN
Signal Logic	NC (Normally Closed)
Output Current	<100mA
Power Consumption	<1W
Response Speed	0.5ms

Mechanical Specifications

Parameter	Specification
Housing Size	29 x 30mm
Total Height	346mm
Protection Height	300mm
Cable Length	3M

Connection Specifications

Component	Connection
Emitter	M2.5 Pin
Receiver	M2.5 Pin

Environmental Specifications

Parameter	Specification
Protection Grade	IP65
Operating Temperature	0°C ~ 50°C
Operating Humidity	<95%RH @ 30°C
Ambient Light Interference	>1000Lux

Safety Certification

Certification	Specification
Safety Level	ISO 1
Safety Standard	IEC 61508
Compliance	CE / FCC / RoHS

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Model Number Explanation

DPR-1620-NPN-NC explanation:

1620 — 16 Beams, 20mm Pitch

- DPR** — DAPPRA DPR Series Area Sensor
- 16** — 16 Optical Beams
- 20** — 20mm Optical Beam Pitch
- NPN** — NPN Output Type
- NC** — Normally Closed Signal Logic

Protection Height Calculation

protection height = beam mounting + 300mm protection area

For DPR-1620 NPN-NC:

300mm + 30mm = 330mm

Dimension & Optical Structure



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Installation Methods



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Wiring Diagram



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Safety Certifications



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