

DAPPRA DPR Series

DPR-1240-PNP-NC

Industrial Area Sensor /
Safety Light Curtain for Machine Protection



KEY SPECIFICATIONS

Supply Voltage	DC 24 V
Output Current	200 mA
Operating Range	3 m
Profile Dimension	29 × 30 mm
Synchronization	Wired Synchronization
Power Consumption	5 W

SKU: SW97

1. PRODUCT OVERVIEW

The DAPPRA DPR-1240-PNP-NC is an Industrial Area Sensor designed for machine protection and industrial automation applications. The sensor uses through-beam infrared detection with an emitter and receiver to create a multi-beam detection field.

2. PRODUCT IDENTITY

Item	Information
Brand	DAPPRA
Manufacturer	DAPPRA Automation
Production	Own manufacturing facility
Series	DPR Series
Model	DPR-1240-PNP-NC
SKU	SW97
Category	Industrial Area Sensor
Related Type	Safety Light Curtain / Light Curtain

MACHINE PROTECTION

FAST RESPONSE <5 ms

SIL 2 CERTIFIED

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3. TECHNICAL SPECIFICATIONS

Parameter	Specification
Detection Method	Through Beam Infrared Detection

Parameter	Specification
Beam Quantity	12 Beams
Optical Axis Pitch	40 mm
Protection Height	440 mm
Detection Distance	0.2 – 3 m
Response Time	< 5 ms
Power Supply	DC 24 V
Output Type	PNP
Signal Logic	NC (Normally Closed)
Output Current	200 mA
Protection Rating	IP65
Ambient Light Resistance	10000 Lux
Operating Temperature	-10°C to 55°C
Cross Section	29 × 30 mm
Power Consumption	5 W
Synchronization	Line Synchronization
Connector	M12 Connector

4. WORKING PRINCIPLE

Emitter sends infrared beams to the receiver. When an object interrupts the detection field, the receiver detects the change and sends an output signal to PLC or machine controller.

5. MODEL NUMBER EXPLANATION

Code	Meaning
DPR	DAPPRA DPR Series
12	12 Optical Beams
40	40 mm Optical Axis Pitch
PNP	PNP Output
NC	Normally Closed Signal Logic

6. SAFETY CERTIFICATION

The DPR-1240-PNP-NC has obtained SIL 2 Functional Safety Certification according to IEC 61508 through third-party testing and certification.

Safety Parameter	Specification
Certification Name	SIL Functional Safety Certificate
Standard	IEC 61508
Safety Level	SIL 2
Certification Type	Third-party Certification

MACHINE PROTECTION

FAST RESPONSE <5 ms

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7. INDUSTRIAL APPLICATIONS

Typical applications include CNC machines, press machines, packaging machinery, conveyor systems and robot peripheral protection.

8. INDUSTRIAL ENVIRONMENT PERFORMANCE

Feature	Description
IP65 Protection	Water, oil and dust resistance
High Humidity	Suitable for demanding industrial environments
Anti-Vibration	Designed for machinery environments
Anti-Interference	Stable operation under industrial interference

9. INSTALLATION AND DOWNLOADS

Installation options: vertical installation, side installation and adjustable bracket installation.
Datasheet PDF / CAD Drawing / Wiring Diagram / Installation Manual: Available from DAPPRA.

10. MANUFACTURER INFORMATION

DAPPRA Automation provides industrial automation products including sensors, control components, drives and supporting components. OEM and ODM services are available for customer designs or samples.