

DPR-1440-NPN-NC

Safety Light Curtain Area Sensor — Mechanical CAD Drawing



Version: 1.0 | Date: August 2026 | SKU: SH30

DAPPRA Automation — Industrial Sensor Manufacturer

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CAD Drawing

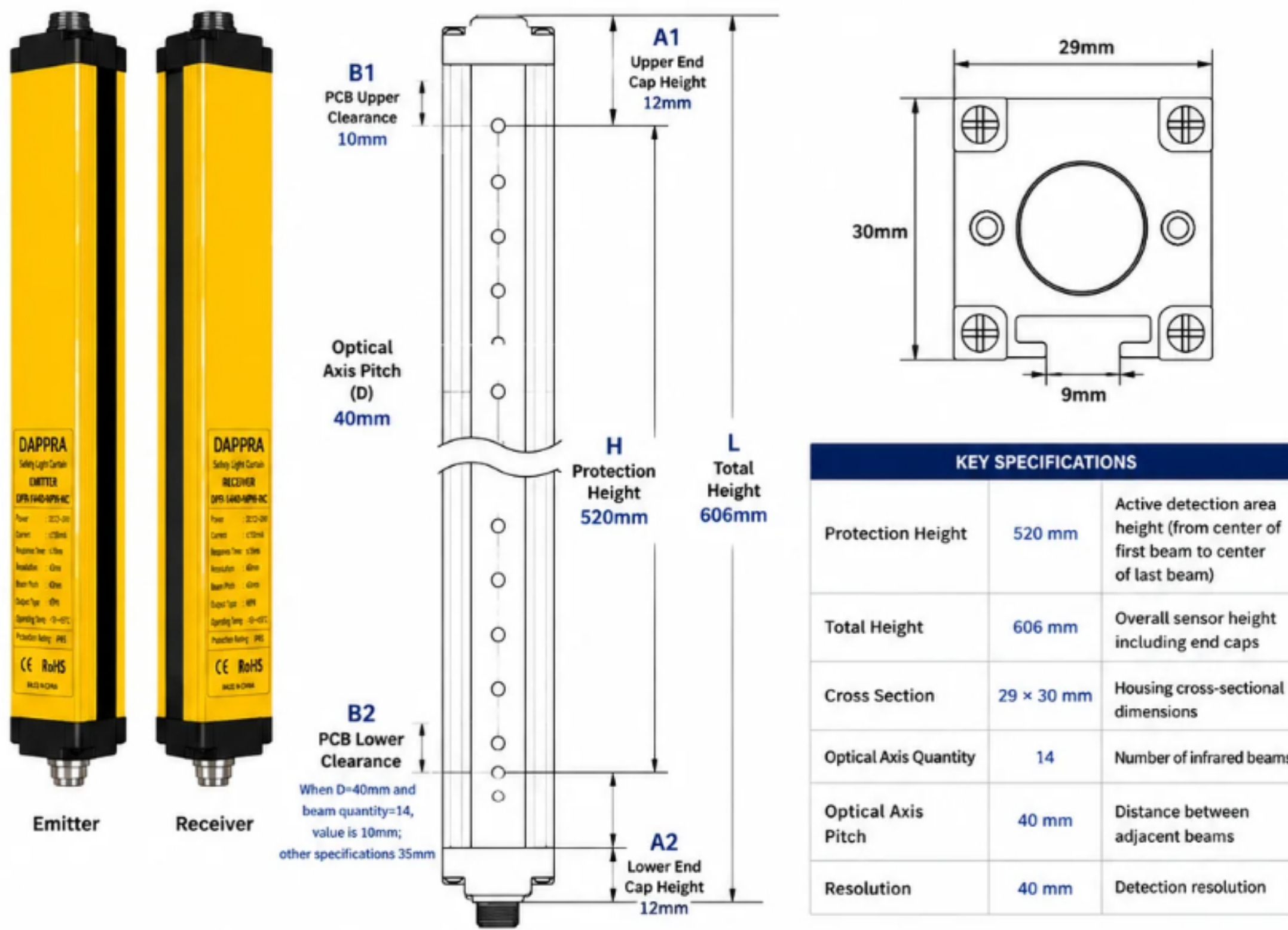
1. Mechanical Drawing

The following drawing provides the complete dimensional layout of the DPR-1440-NPN-NC Safety Light Curtain Area Sensor (SKU: SH30).

DPR-1440-NPN-NC

Safety Light Curtain Area Sensor — Mechanical Dimension Drawing

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DIMENSION PARAMETERS	
A1: Upper End Cap Height	12mm
A2: Lower End Cap Height	12mm
B1: PCB Upper Clearance	10mm
B2: PCB Lower Clearance	When D = 40mm and beam quantity = 14, value is 10mm; other specifications 35mm
D: Optical Axis Pitch	40mm
H: Protection Height	(Beam Quantity - 1) × D → (14 - 1) × 40 = 520mm
L: Total Light Curtain Length	Upper End Cap Height + Lower End Cap Height + Protection Height 12 + 12 + 520 = 606mm

BEAM ARRANGEMENT (Example)	
Optical Axis Quantity: 14 Optical Axis Pitch: 40mm Protection Height: 520mm	
EMITTER	RECEIVER

Note: All dimensions are measured in millimeters (MM). Manual measurement may have ± small tolerance.

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2. Dimensional Data

Dimension Reference	Value (mm)	Tolerance (±)
A — Protection Height	520	0.5
B — Total Height (including end caps)	606	0.5
C — Optical Axis Pitch	40	0.1
D — Width (Cross Section)	29	0.2
E — Depth (Cross Section)	30	0.2
F — Beam Diameter (optical)	8	0.5
G — End Cap Height (each)	20	0.3
H — Mounting Hole Spacing	500	0.5

General Tolerances: Linear dimensions: ±0.5 mm (up to 500 mm) | ±1.0 mm (over 500 mm)
Angular dimensions: ±0.5° | Surface finish: Ra ≤ 3.2 μm

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3. Material & Finishing Specifications

Component	Material	Surface Treatment
Sensor Housing (Emitter / Receiver)	Aluminum Alloy 6061	Anodized (Black)
End Caps	ABS Plastic	Molded (Black)
Optical Window	PMMA (Acrylic)	Anti-reflective coating
Mounting Brackets (optional)	Stainless Steel SUS304	Passivation
Connector	M12 Metal	Nickel-plated

4. Mounting Bracket Dimensions (Optional)

The DPR-1440-NPN-NC supports mounting with standard brackets. The following dimensions are provided for reference when designing custom mounting solutions.

Mounting Hole Spacing: 32 mm (slotted for adjustment)	Bracket Width: 50 mm
Material: Stainless Steel SUS304	Thickness: 3.0 mm
Adjustment Range: ±15° vertical tilt	Compatibility: DPR-1440-NPN-NC emitter and receiver

5. Technical Reference

Mounting Orientation: Vertical or horizontal mounting supported. Emitter and receiver must be parallel.	Alignment Requirement: Maximum angular deviation: ±2° between emitter and receiver.
Clearance: Minimum 50 mm clearance around housing for airflow and maintenance.	Weight: Emitter: ~0.6 kg Receiver: ~0.6 kg (approx. 1.2 kg total for pair).

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* All dimensions in mm. Drawings are not to scale. Refer to the official CAD file (STEP/IGES) for exact geometry.