



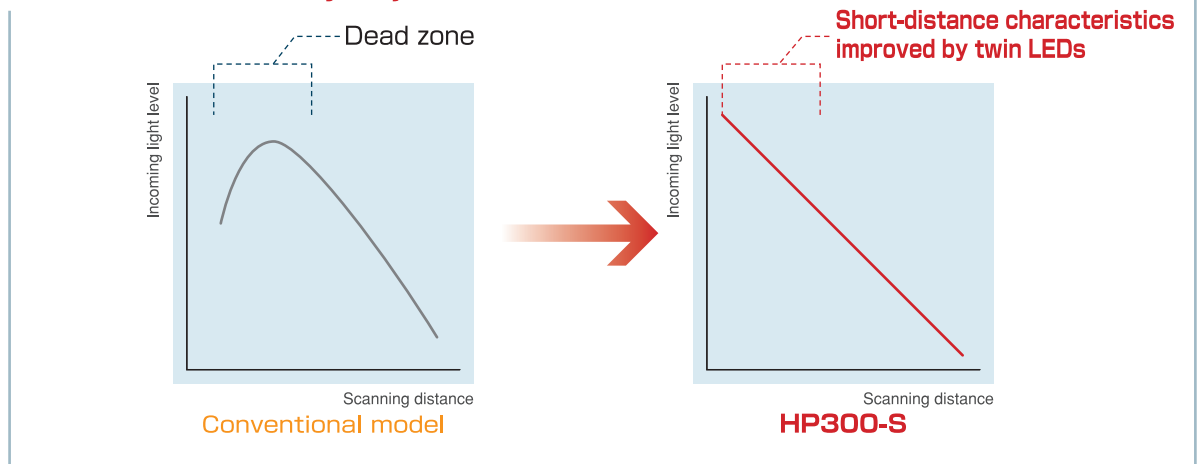
# HP300

## Short-range diffuse-scan type

HP300-S1 / HP300-S2

Features

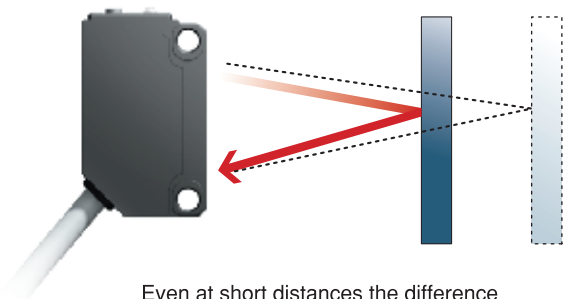
- ▶ **Twin emitter-LEDs and an extended sensitivity adjustment band enable reliable detection in the short-distance range**
- ▶ **Extended sensitivity adjustment band**



- ▶ **Mutual interference prevention allows dense same-line mounting of multiple sensors**

Applications

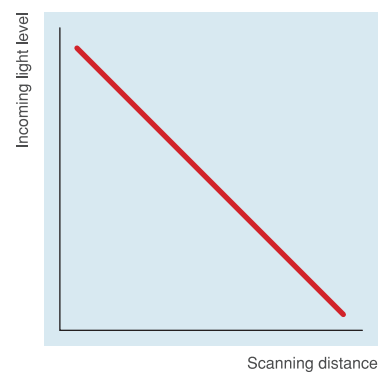
### Position detection based on the difference in scanning distances



Even at short distances the difference in light level is sufficient to differentiate the positions.

### Reliable detection of low-reflectance targets

Thanks to improved characteristics, incoming light level is high at short distances. By setting a short scanning distance, low-reflectance targets can be detected.



HP300-S

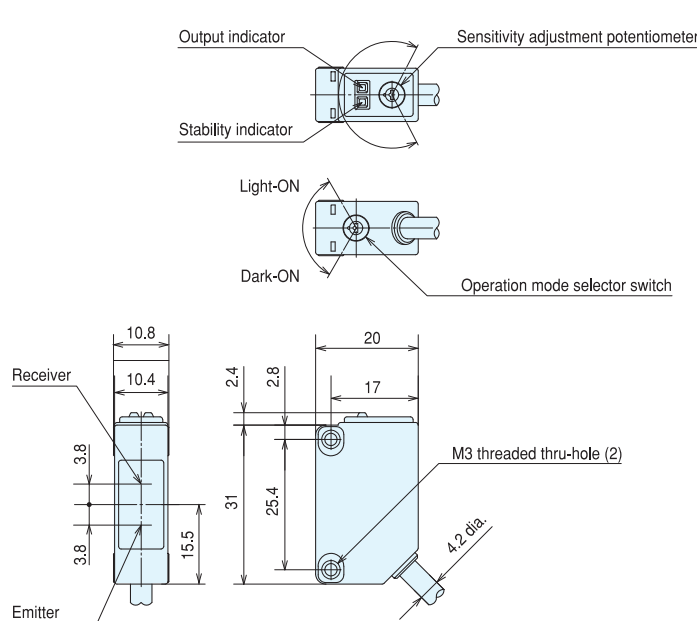
Models

Catalog listing	Description
<b>HP300-S1</b>	NPN, preleaded, cable length 2m
<b>HP300-S2</b>	PNP, preleaded, cable length 2m

Specifications

Catalog listing	HP300-S1	HP300-S2
Detection type	Short-distance diffuse-scan	
Power supply	10 to 30Vdc (ripple 10% max.)	
Current consumption	16mA	
Scanning distance	200mm	
Sensitivity adjustment method	1-turn potentiometer	
Operation mode	Light-ON / dark-ON selectable by switch	
Output type	NPN open collector	PNP open collector
Control output	Switching current: 100mA max. (resistive load). Output dielectric strength: 30V.Voltage drop: 3V max. (at 100mA switching current), Short circuit protection.	
Response time	500_μs max. for both operation and recovery	
Emitter LED	Infrared LED	
Indicator	Output indicator: orange at control output ON. Stability indicator: green at stable light/dark status	
Ambient light immunity	Incandescent lamp: 10,000 lux max. Sunlight: 40,000 lux max.	
Operating temperature	-30 to +60°C (no freezing or condensing)	
Operating humidity	30 to 85% RH (no freezing or condensing)	
Storage temperature	-40 to +70°C(no freezing or condensing)	
Protective structure	IP67 (IEC)	
Wiring type	Preleaded, cable length 2m	
Weight	Approx. 55g (body with 2m cable only)	
Circuit protection	Power ON malfunction prevention (approx. 8ms delay), wiring error protection	

Dimensions



Specifications are subject to change without notice.

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**RESTRICTIONS ON USE**

This product has been designed, developed and manufactured for general-purpose application in machinery and equipment. Accordingly, when used in applications outlined below, special care should be taken to implement a fail-safe and/or redundant design concept as well as a periodic maintenance program.

- Safety devices for plant worker protection • Start/stop control devices for transportation and material handling machines
- Aeronautical/aerospace machines • Control devices for nuclear reactors

Never use this product in applications where human safety may be put at risk.

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