



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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US-N300

Related Information

- General terms and conditions..... F-7
- Sensor selection guide.....P.885~
- General precautions..... P.1501



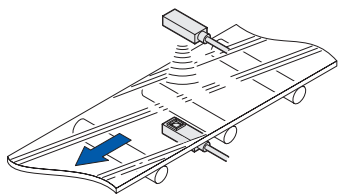
- Never use this product as a sensing device for personnel protection.
- In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

panasonic.net/id/pidsx/global

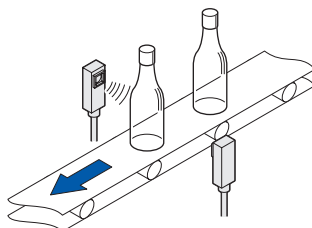
Suitable for detecting transparent films or transparent bottles

APPLICATIONS

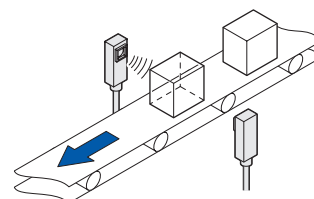
Detecting transparent film or transparent glass



Detecting transparent bottles



Detecting transparent and opaque objects



SPECIFICATIONS

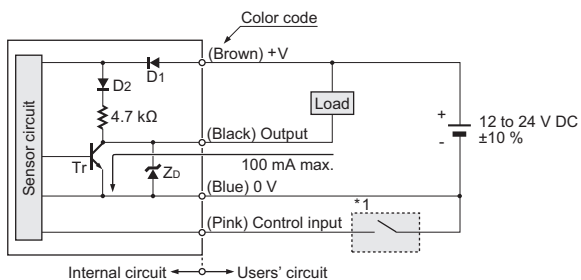
Type	Thru-beam	
Item	Model No.	US-N300
Sensing range	300 mm 11.811 in	
Sensing object	Transparent, translucent or opaque object: 20 × 20 mm 0.787 × 0.787 in or more, Hole: 10 × 10 mm 0.394 × 0.394 in or more	
Supply voltage	12 to 24 V DC ±10 % Ripple P-P 10 % or less	
Current consumption	Transmitter: 35 mA or less, Receiver: 35 mA or less	
Output	NPN transistor universal • Maximum sink current: 100 mA • Residual voltage: 1 V or less (at 100 mA sink current)	
Output operation	Selectable either sound-received-ON or sound-blocked-ON by the control input	
Response time	5 ms or less	
Sensitivity adjuster	Continuously variable adjuster	
Transmission frequency	220 kHz approx.	
Protection	IP62 (IEC)	
Ambient temperature	0 to +50 °C +32 to +122 °F (No dew condensation), Storage: -25 to +70 °C -13 to +158 °F	
Material	Enclosure: Polycarbonate	
Net weight	Transmitter: 80 g approx., Receiver: 85 g approx.	
Accessories	MS-N30 (Sensor mounting bracket): 1 set for transmitter and receiver, Adjusting screwdriver: 1 pc.	

Note: Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C +73.4 °F.

- FIBER SENSORS
- LASER SENSORS
- PHOTOELECTRIC SENSORS
- MICRO PHOTOELECTRIC SENSORS
- AREA SENSORS
- LIGHT CURTAINS / SAFETY COMPONENTS
- PRESSURE / FLOW SENSORS
- INDUCTIVE PROXIMITY SENSORS
- PARTICULAR USE SENSORS
- SENSOR OPTIONS
- SIMPLE WIRE-SAVING UNITS
- WIRE-SAVING SYSTEMS
- MEASUREMENT SENSORS
- STATIC ELECTRICITY PREVENTION DEVICES
- LASER MARKERS
- PLC
- HUMAN MACHINE INTERFACES
- ENERGY CONSUMPTION VISUALIZATION COMPONENTS
- FA COMPONENTS
- MACHINE VISION SYSTEMS
- UV CURING SYSTEMS

I/O CIRCUIT AND WIRING DIAGRAMS

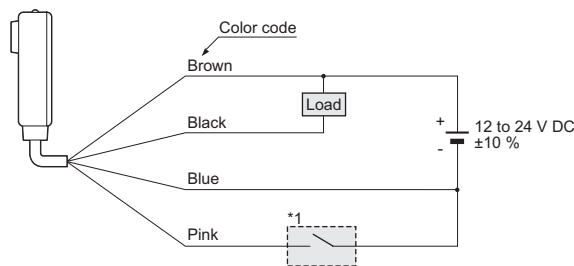
I/O circuit diagram



Note: The transmitter has only two power supply wires (V and 0 V).

Symbols... D1: Reverse supply polarity protection diode
 D2: Reverse current protection diode
 ZD: Surge absorption zener diode
 Tr : NPN output transistor

Wiring diagram



*1

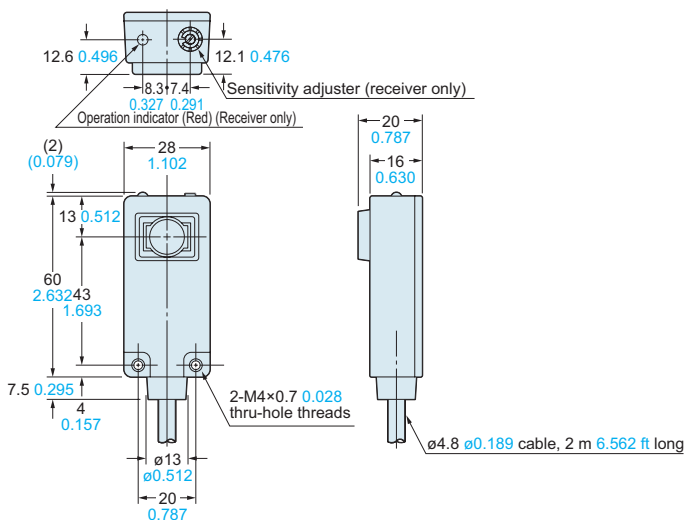
Non-voltage contact, NPN open-collector transistor or NPN non-contact transistor

Low (0.5 to 1.5 V, or connected to 0 V): Sound-received-ON
 High (6 V to supply voltage, or open): Sound-blocked-ON

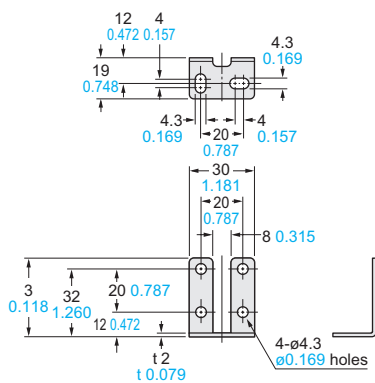
DIMENSIONS (Unit: mm in)

The CAD data in the dimensions can be downloaded from our website.

US-N300 Sensor



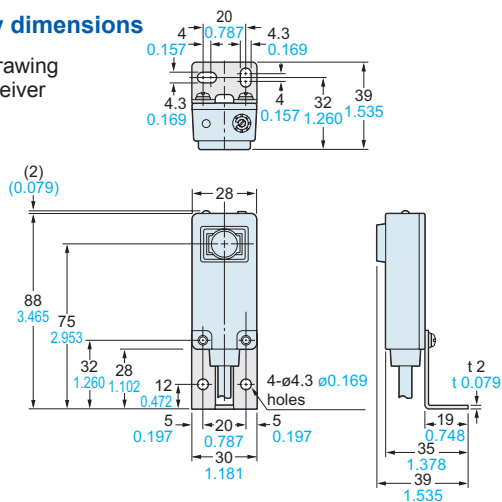
MS-N30 Sensor mounting bracket (Accessory)



Material: Cold rolled carbon steel (SPCC)
 Two M4 (length 15 mm 0.591 in) screws with washers are attached.

Assembly dimensions

Mounting drawing with the receiver



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- Selection Guide
- Wafer Detection
- Liquid Leak Detection
- Liquid Level Detection
- Water Detection
- Color Mark Detection
- Hot Melt Glue Detection
- Ultrasonic
- Small / Slim Object Detection
- Obstacle Detection
- Other Products