## BTH U-shape Photo Sensor

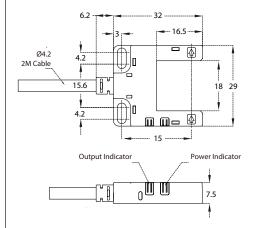
- High-speed Response 1 kHz
- Slot width 18mm
- Reverse Power Polarity and Short-circuit (Overcurrent) Protection Circuit
- BU-18KM has a better Prevention of outside Light.
- Selectable Dark ON / Light ON and PNP / NPN
- Solid die Casting Case





Model	BU-18KM
Sensing Distance	18 mm
Detection Object	Opaque
Emitting Light	Infrared LED 940nm
Operating Voltage	12~24 VDC
Current Consumption	35 mA Max.
Load Current	100mA Max. at 24VDC
Output Type	PNP(NO) Dark on / PNP(NC) Light on / NPN(NO) Dark on / NPN(NC) Light on
Response Time	1 ms Max.
Ambient Illumination	Incandescent light 5,000 lux max.
Insulation Resistance	20MΩ min. (DC500V)
Voltage with Standabiligy	AC1000V 60Hz for 60 Sec.
Operating Temperature	-10°C ~ + 55°C (No freezing allowed)
Ambient Humidity	45% ~ 85% RH
Protection Degree	IP65
Vibration Resistance	1.5-mm peak-to-peak amplitude, 10 to 55 Hz, 2 hours each in X, Y, and Z directions
Shock Resistance	50G, repeated 10 times each in X, Y, and Z directions
Material	ZINC / Nickel-plated zinc alloy
Wiring Method	Pre-wired Ø4.2 x 2 M / 4-wires
Weight	Approx.70g

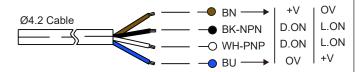
## **♦** Dimension Drawing



The almost parallel light beam and the small beam angle of the receiver optics make it possible to install the sensors side by side without affecting each other and even construct, for example, small light barriers.

Attach the fork and angle sensors so that the object can pass freely through the scanning range. The receiver side should be protected from direct exposure to external light sources.

## Connection Diagram



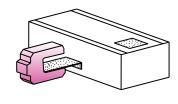
PNP NO (Dark ON) Brown (+) White (out) Blue (-)

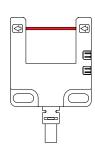
PNP NC (Light ON) Brown (-) White (out) Blue (+)

NPN NO (Dark ON) Brown (+) Black (out) Blue (-)

NPN NC (Light ON) Brown (-) Black (out) Blue (+)

## Applications





The specifications are subject to change without prior notice

All Dimension are in mm

BTH BU-18KM Version 1.0