

## BlueLight - The NEW standard

Detect more, do more in industrial automation

# The NEW standard



# The NEW standard

Detect more, do more with BlueLight technology

**With the innovative BlueLight technology, simple as well as difficult-to-detect objects can be reliably detected.**

Objects are generally considered difficult-to-detect if they emit little or barely any light back to the receiver. This includes, for example, dark, shiny, transparent parts or objects that are at a strong inclination angle to the sensor.

The reason the blue light sensors detect these objects better than red light sensors can be explained physically. The blue light has a higher intensity and different light colors interactive differently with the surface of the detected object. The penetration depth of short-wave blue light is less than that of red light; the amount of light that is reflected at the surface is correspondingly higher, which benefits the detection of objects with low reflectivity - especially those with a dark surface. But even with transparent objects, a significantly better detection rate and thus a more stable process can be achieved.

This means that BlueLight sensors can easily be used as new standard sensors and thus increase process reliability in many industrial application areas.



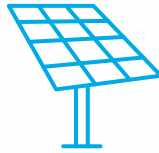
Our BlueLight sensors are well established in many industries



Packaging technology



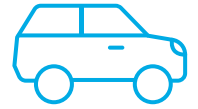
Pharmaceuticals &  
Cosmetics



Solar industry



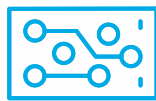
Robotics



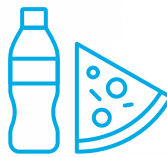
Automotive industry



Assembly & Handling



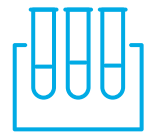
Electronics



Food & Beverages



Plastics technology



Lab automation





# The NEW standard

Detect more, do more in industrial automation



In many industrial automated processes, sensors must reliably detect deep black, reflective, curved, angled, shiny and transparent objects. In addition, blue light sensors have been found to detect reliably even at large angles to the object, which can particularly be the case with limited installation space. Due to the precisely tuned transmitting and receiving technology developed by SensoPart, the BlueLight sensors enable significantly higher process reliability than red light sensors and are therefore used for the detection of challenging materials.

Their flexibility, robustness and process reliability offer a great variety of advantages - they are not only problem solvers but real all-rounders and can therefore be used as new standard sensors without any problems.

The advantages at a glance:

- One-for-all sensor solution for applications in a wide range of industries
- Increased process stability, not only in critical applications
- Detection of deep black, reflective, curved, angled, shiny, and transparent objects
- Reliable and easy to operate
- Simple and cost-efficient
- Increased efficiency in object detection
- Fast and reliable detection regardless of the shape, color, or structure of the object to be detected
- Fast return on investment, compared to the significant costs that can arise from downtime due to unreliable detection results

## Examples of industries and applications



### Packaging industry

- Detection of transparent foils, containers, bottles and labels



### Pharmaceutical industry

- Presence and positioning of glossy blisters



### Solar industry

- Presence detection and positioning of wafers



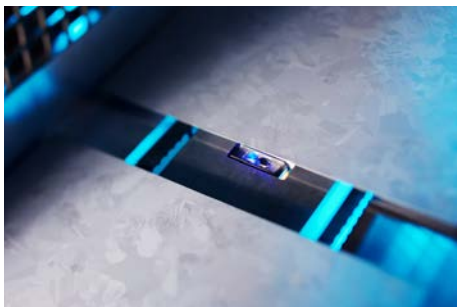
### Robotics

- Presence detection of objects in the gripper



### Automotive industry

- Detection of metallic and highly absorbent components

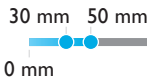


## BlueLight – Product overview

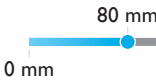
Type	Adjustment	Operating range	Hysteresis
FT 10-BF2	Fixed focus	2 ... 30 mm	< 0,5 %
FT 10-BF3	Fixed focus	2 ... 50 mm	< 0,5 %
FT 10-BH	Adjustable, IO-Link	3 ... 100 mm	< 1,2 %
FT 10-BHD	Adjustable, IO-Link	3 ... 150 mm	< 2,4 %
FT 25-BF2	Fixed focus	0 ... 80 mm	< 1 %
FT 25-BH	Adjustable, IO-Link	0 ... 200 mm	< 2 %
FT 50 BH	Adjustable (Potentiometer)	2 ... 300 mm	< 1 %
FT 55-BH	Adjustable (Potentiometer)	3 ... 1200mm	< 10 %

FIXED FOCUS

FT 10-BF2 / BF3



FT 25-BF2



ADJUSTABLE

FT 10-BH



FT 10-BHD



FT 25-BH

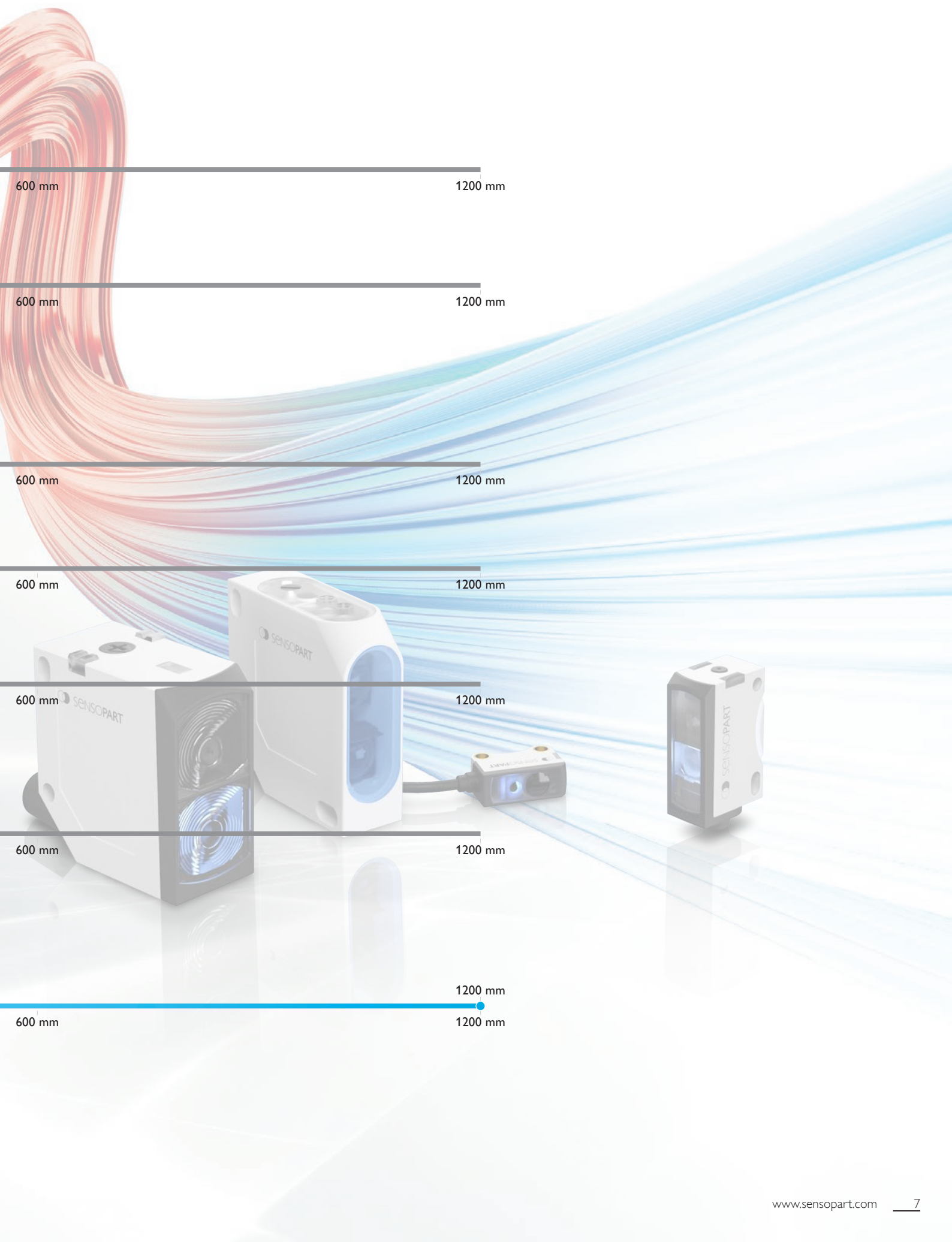


FT 50 BH



FT 55-BH

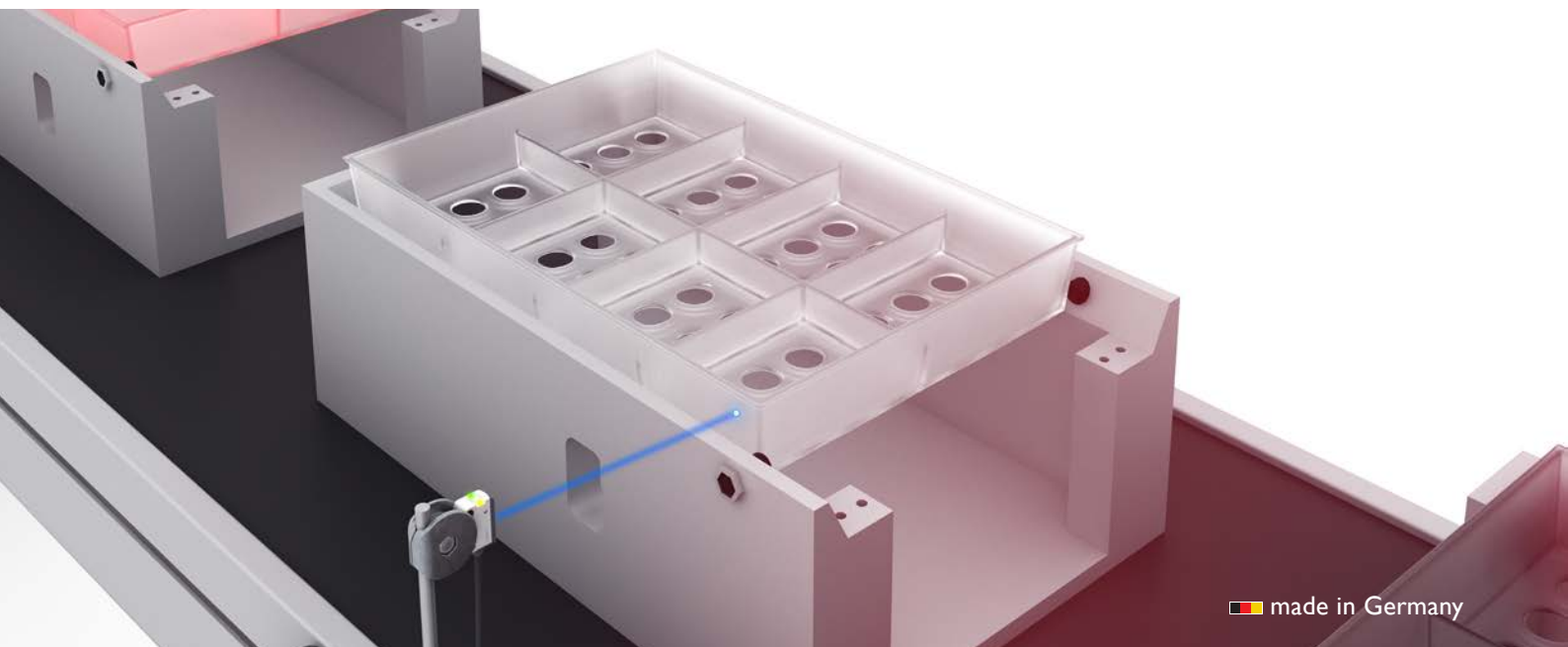






# FT 10-BH(D) - Blue has no limits

One device for all your sensing needs



## High-performance subminiature blue light sensor for detection tasks of any kind:

With its high range and two switching outputs, SensoPart's new **FT 10-BHD** BlueLight subminiature sensor offers users a wide range of possible applications while keeping the installation space to a minimum.

### TYPICAL FT 10-BH(D)

- Subminiature sensor with bluelight technology and precise, adjustable background suppression
- Precise and safe switching behavior with highly light-absorbing objects
- Safe operation without reflector - even with critical object surfaces
- Two physical switching outputs on the FT 10-BHD
- Easy alignment due to clearly visible light spot
- Sensor adjustment via teach-in button, control input and IO-Link
- No blind zone in Detect All mode with the FT 10-BHD



BlueLight



IO-Link

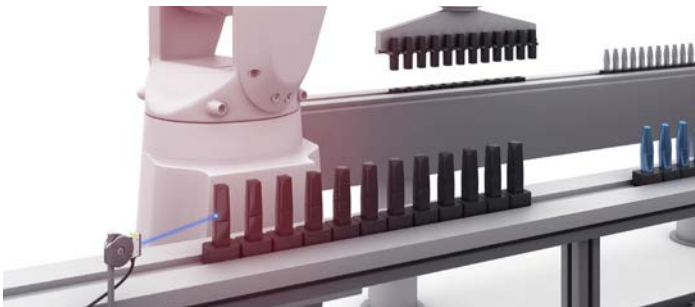
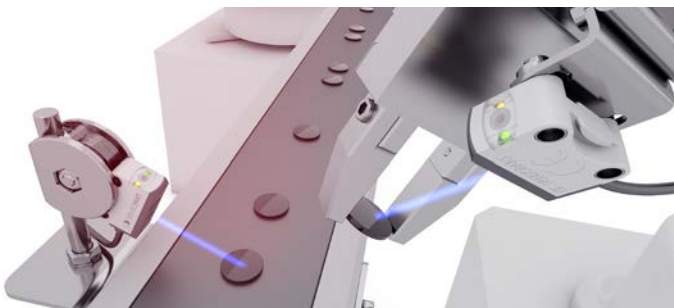
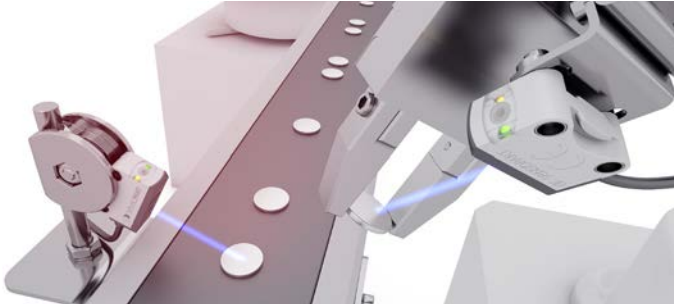
ECOLAB



CE

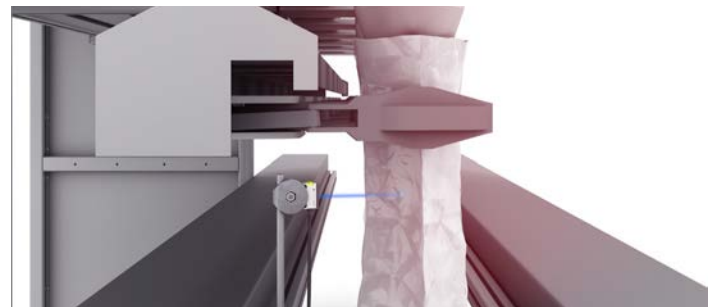












#### Examples of industries and applications:

- **Automotive industry**
  - Detection of metallic and highly absorbent components
- **Packaging industry**
  - Detection of transparent foils, containers, bottles, and labels
- **Pharmaceutical industry**
  - Presence and positioning of glossy blisters
- **Solar industry**
  - Presence detection and positioning of wafers



#### FT 10-BH(D) – Product overview

Sensor	Light source	Adjustment	Operating range	More information
FT 10-BH	LED, blue	Teach-in (button and control input)  IO-Link 	3 ... 100 mm	 <a href="http://www.sensopart.com/en/products/details/ft-10-bh/">www.sensopart.com/en/products/details/ft-10-bh/</a>
FT 10-BHD	LED, blue	Teach-in (button and control input)  IO-Link 	3 ... 150 mm	 <a href="http://www.sensopart.com/en/products/details/ft-10-bhd/">www.sensopart.com/en/products/details/ft-10-bhd/</a>

# FT 10-BF / FT 25-BF2

BlueLight photoelectric diffuse sensor with background suppression and fixed focus



ECOLAB



made in Germany

## True all-rounder:

Originally developed by SensoPart specifically for the solar industry, the **FT 10-BF** BlueLight sensor, or the **FT 25-BF**, are true all-rounders. The FT 10-BF and FT 25-BF BlueLight sensors are fixed-focus devices that very precisely detect objects between 2...30 / 50 mm and 0...80 mm, while suppressing the background thanks to SensoPart HGA technology.

## TYPICAL FT 10-BF / FT 25-BF2

- Subminiature/miniature sensor with BlueLight technology and precise, fixed background suppression
- Safe switching behavior for highly light-absorbing and transparent objects
- Safe operation without reflector - even for critical object surfaces
- Manipulation-proof sensor design - no misalignment possible
- Easy mounting and adjustment due to innovative dovetail mounting concept

## Examples of industries and applications:

### → Solar industry

- Detection of solar wafers in every process phase



More information:  
[www.sensopart.com/en/products/details/ft-10-bf/](http://www.sensopart.com/en/products/details/ft-10-bf/)



More information:  
[www.sensopart.com/en/products/details/ft-25-bf2/](http://www.sensopart.com/en/products/details/ft-25-bf2/)



### Highest robustness for detection tasks:

BlueLight sensors, such as the **FT 25-BH**, stand for maximum reliability and robustness in detection tasks. Even at very strong angles, they ensure significantly higher detection reliability. If the sensor has to be mounted sideways to the process for space reasons, so that the detection angle becomes very large, high process stability is still ensured.

### TYPICAL FT 25-BH

- Miniature sensor with BlueLight technology and precisely adjustable background suppression
- Safe switching in case of highly light-absorbing and shiny objects
- Safe operation even with highly reflective backgrounds thanks to SensoPart ASIC technology
- Easy alignment due to clearly visible light spot
- Sensor adjustment via teach-in, control input and IO-Link
- Robust, glass-fiber reinforced plastic housing

### Examples of industries and applications:

- **Printing industry**
  - Determination of paper roll diameter
- **Wood, packaging and handling industry**
  - Stack height control, double layer detection
- **"Pick & Place" applications**
  - Checking gripper opening or checking presence of objects in the gripper



More information:  
[www.sensopart.com/en/products/details/ft-25-bhl](http://www.sensopart.com/en/products/details/ft-25-bhl)

# FT 50-BH

BlueLight photoelectric diffuse sensor with background suppression



made in Germany

## BlueLight photoelectric diffuse sensor with background suppression:

BlueLight sensors, such as the **FT 50-BH**, solve standard applications and problem applications. They can be used for both types of applications. In plants where both sensors are installed, red light sensors can be dropped. This saves storage space and the portfolio of different sensors can be reduced.

### TYPICAL FT 50-BH

- Precisely adjustable background suppression
- Easy scanning distance adjustment thanks to indicator scale
- Rotatable plug connection



BlueLight



More information:

[www.sensopart.com/en/products/details/ft-50-bh/](http://www.sensopart.com/en/products/details/ft-50-bh/)





### High flexibility in object detection:

BlueLight sensors, such as the **FT 55-BH**, offer high flexibility in object detection. If the objects to be detected in a plant are changed, BlueLight sensors offer the highest flexibility. They reliably detect critical as well as non-critical objects. The same applies to the plant: if the plant is modified and the sensor thus has to be mounted at a large angle to the object, BlueLight sensors offer high flexibility.

### TYPICAL FT 55-BH

- Long scanning distance of 1.2 m
- BlueLight technology with precisely adjustable background suppression – reliable operation even with highly reflective and glossy backgrounds
- Precise scanning distance adjustment by means of potentiometer
- Reliable detection of highly transparent or strongly light-absorbing objects
- Reliable detection even with angles of up to 90°

### Examples of industries and applications:

- **Robotics**
  - Obstacle detection for autonomously driving vehicles
- **Automotive**
  - Presence detection of car body parts
- **Warehouse and material handling technology**
  - Presence of pallets in high-bay warehouses
- **Others**
  - Stack height or fill level control



More information:  
[www.sensopart.com/en/products/details/ft-55-bh/](http://www.sensopart.com/en/products/details/ft-55-bh/)

**SensoPart** is one of the leading manufacturers of photoelectric sensors and image processing vision sensors for factory automation. We also offer inductive and ultrasonic sensors, thereby covering a wide spectrum of industrial automation tasks. Our products are used in countless applications and sectors today – from automotive construction and mechanical engineering to electronics manufacturing and the solar industry, as well as the food sector and pharmaceutical industry.



## SensoPart worldwide

### Germany

SensoPart  
Industriesensorik GmbH  
Nägelseestraße 16  
79288 Gottenheim  
Phone +49 7665 94769-0  
info@sensopart.de

### France

SensoPart France Sarl  
662, rue des Jonchères – Bât. A  
F-69730 GENAY  
Phone +33 164 730061  
info@sensopart.fr

### United Kingdom

SensoPart UK Limited  
Pera Business Park, Nottingham Road  
Melton Mowbray, Leicestershire  
LE13 0PB  
Phone +44 1664 561539  
info@sensopart.co.uk

### Austria

SensoPart Österreich GmbH  
Gierstergasse 6  
1120 Vienna  
Tel. +43 6763 689834  
info@sensopart.at

### USA

SensoPart Inc.  
30600 Telegraph Rd.  
Suite 2345,  
Bingham Farms, MI, 48025  
Phone +1 866 2827610  
info.usa@sensopart.com

### China

SensoPart China  
202, No. 35, Lane 1555  
West Jinshajiang Road,  
Jiading District  
201803 Shanghai  
Phone +86 21 69017660  
china@sensopart.cn

### Korea

SensoPart Korea  
Geumgang Pentierum IX Tower B 235&236,  
27, Dongtancheomdansaneop 1-ro,  
Hwaseong-si, Gyeonggi-do, Korea  
Phone +82 31 723 0135  
m.kim@sensopart.com

Find your local supplier at: [www.sensopart.com/en/contact/](http://www.sensopart.com/en/contact/)

### Magyarország:

NTK Ipari-Elektronikai és Kereskedelmi Kft.  
Telefon: +36 96 523 268  
info@ntk-kft.hu  
[www.ntk-kft.hu](http://www.ntk-kft.hu)