

## Blue misses nothing.

The next generation of object detection

**NEW**  
FT 25-BH with  
adjustable background  
suppression



# BlueLight sensors for every application

From the F 10, F 25, F 50 and F 55 series



Developed specifically for difficult-to-detect objects, BlueLight sensors are true do it all sensors.

The **BlueLight series** offers much greater detection efficiency than standard optical sensors in challenging applications – whether with extremely shiny, strongly light-absorbing or highly transparent objects.

## BlueLight – Product overview

Type	Adjustment	Scanning distance	Hysteresis
FT 10-BF2 / BF3	Fixed focus	2 to 30 mm // 2 to 50 mm	< 0.5%
FT 25-BF2	Fixed focus	0 to 80 mm	< 1%
FT 25-BH <b>NEW</b>	Adjustable, IO-Link	0 to 200 mm	< 2%
FT 50 BH	Adjustable (potentiometer)	2 to 300 mm	< 1%
FT 55-BH	Adjustable (potentiometer)	3 to 1200 mm	< 10%



## Industry Application Examples

### Automotive

- Detection of metallic and highly light-absorbing components

### Packaging

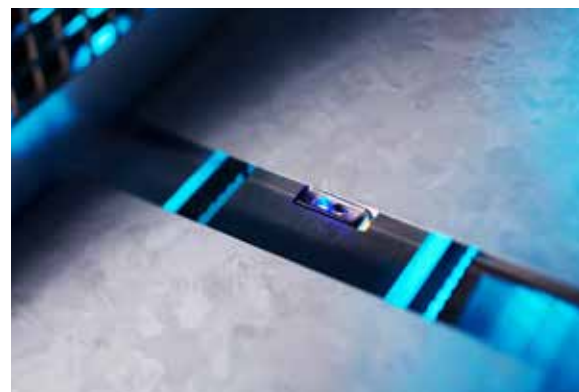
- Detection of transparent films / containers / bottles and labels

### Pharmaceutical

- Presence and positioning of shiny blister packs

### Solar

- Detection of presence and position of wafers



# Blue light makes black visible.

## Sensors with blue light

Transparent, shiny and deep black parts present enormous challenges for proximity sensors. Sufficient process stability cannot always be achieved during detection, in which case optical sensors ultimately have to be replaced by other sensor principles (photoelectric sensors, ultrasonic sensors etc.).

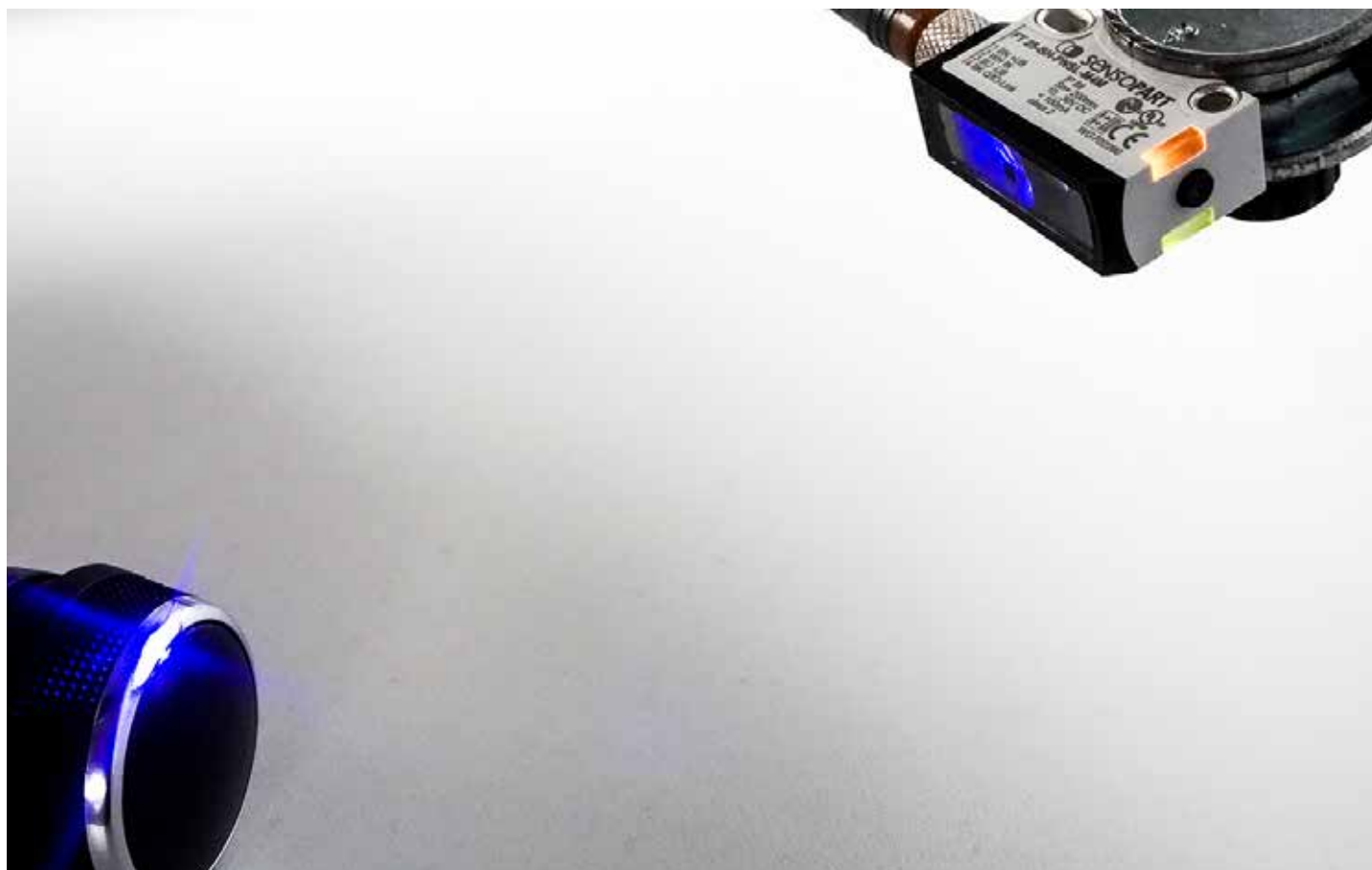
Optical blue light sensors represent a cost-efficient alternative to such complex solutions, and offer much greater process stability than conventional red light proximity sensors in many critical applications.

The sensor achieves very high process stability thanks to its instantaneous response, regardless of the shape, colour or structure of the object to be detected.

Some applications can even involve a combination of several critical factors, e.g. black objects with a high gloss surface and a wide detection angle.

Even when faced with such multiple challenges, blue light sensors have repeatedly proven their worth.

Thanks to SensoPart's innovative receiver technology and a high-precision optical concept, BlueLight sensors demonstrate excellent sensor characteristics. Combined with significantly higher process stability, this opens up a whole new range of possibilities in the detection of 'difficult' objects.







They are small, black and are rapidly multiplying: the number of dark to deep black plastic parts is constantly growing throughout all sectors.

BlueLight sensors are now successfully used in a wide range of applications involving light-absorbing objects. For example, to detect the presence of carbon fibre components or matte black interior trim panels in the automotive industry or black, round plastic caps on a conveyor belt. BlueLight sensors also prove outstanding when detecting black or reflective metal parts.

The simple and cost-efficient blue light sensor is now the answer for these and many other applications and is also replacing the retro-reflective photoelectric sensors previously in use.



***In subminiature housing***

*Measuring just 21.1 x 14.6 x 8mm, the F 10 BlueLight is perfect for installation in confined spaces.*

# Overview: BlueLight.

## Technical Overview

Fixed focus

FT 10-BF2 / BF3



30 mm

50 mm

FT 25-BF2



80 mm

FT 25-BH ↻



200 mm

FT 50 BH



300 mm

FT 55-BH



1200 mm

Adjustable



- Precise, fixed focus background suppression
- Ideal for mounting on robot grippers

- Robust detection from 0 mm
- Precisely fixed background suppression
- Reliable object detection even at very large angles of inclination

- Optical presence detection of the latest generation
- Optimum detection of hard-to-detect objects with excellent sensory properties
- IO-Link interface with switching point adjustment in millimetres

- Precisely adjustable background suppression
- Simple adjustment of scanning range thanks to indicator scale

- Adjustable background suppression (potentiometer)
- Safe operation even with reflective or shiny backgrounds



# FT 10-BF

BlueLight-Photoelectric diffuse sensor with background suppression, fixed focus



## PRODUCT HIGHLIGHTS

- Sub-miniature sensor with BlueLight technology and precise fixed background suppression
- Reliable switching behaviour with strongly light-absorbing and transparent objects, e.g. solar wafers in every process phase
- Reliable operation without reflector - even with critical surfaces
- Tamper-proof sensor design - no misalignment possible
- Simple mounting and adjustment through innovative dovetail clamp mounting

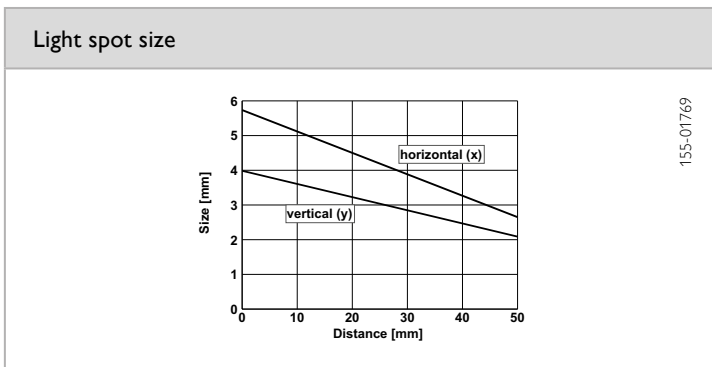
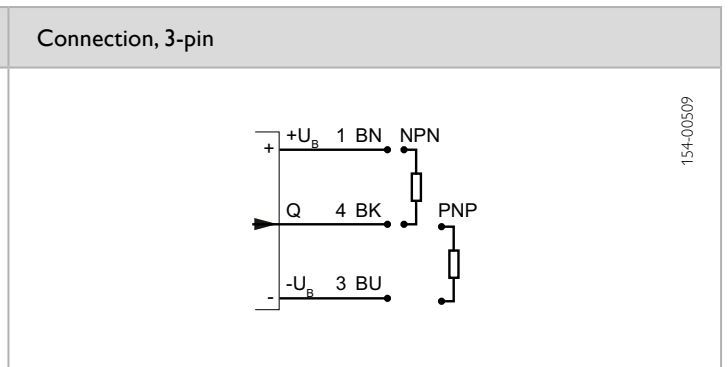
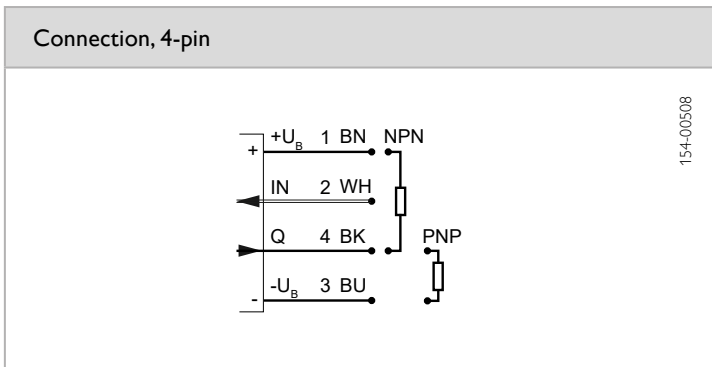
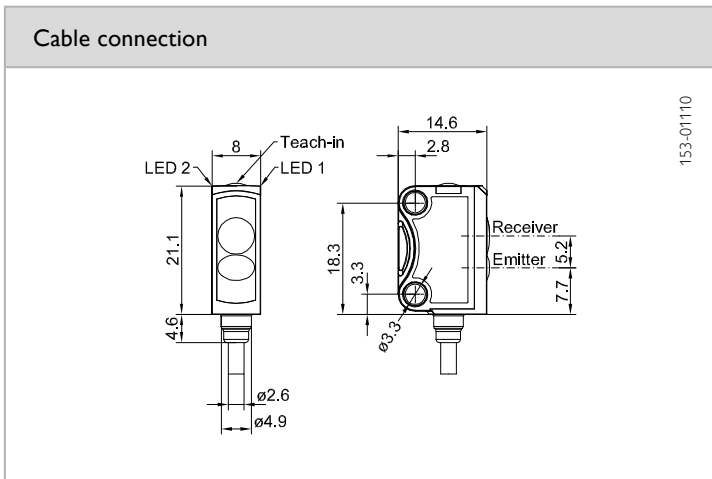
Optical data		Functions	
Scanning distance	2 ... 30 mm <sup>1</sup> / 2 ... 50 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Optimum scanning distance	15 ... 20 mm	Indicator LED, yellow	Switching output indicator
Used light	LED, blue, 450 nm	Adjustment possibilities	N.O. / N.C. via control input <sup>3</sup>
LED risk group (DIN 62471)	2		
Light spot size	See diagram		
Ambient light	EN 60947-5-2		
Electrical data		Mechanical data	
Operating voltage +U <sub>B</sub>	10 ... 30V DC <sup>2</sup>	Dimensions	21,1 x 14,6 x 8 mm
No-load supply current I <sub>0</sub>	≤ 20 mA	Enclosure rating	IP 67 <sup>4</sup>
Output current I <sub>e</sub>	≤ 50 mA	Material, housing	PUR
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection (Q)	Material, front screen	PMMA
Protection class	2	Type of connection	See selection table
Power On Delay	< 300 ms	Ambient temperature: operation	-20 ... +50 °C <sup>5</sup>
Switching output, Q	PNP/NPN (see selection table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (cable device)	Approx. 22 g
Switching frequency, f (ti/tp 1:1)	1000 Hz	Weight (pigtail)	Approx. 10 g
Response time	500 μs		
Control input, I <sub>N</sub> <sup>3</sup>	+U <sub>B</sub> = N.C. -U <sub>B</sub> / Open = N.O.		

<sup>1</sup> Reference material white, 90 % reflectivity    <sup>2</sup> Max. residual ripple 10 %, within U<sub>B</sub>, approx. 50 Hz/100 Hz    <sup>3</sup> Only 4-pin design    <sup>4</sup>With connected IP 67 plug    <sup>5</sup> UL: -20 ... +30 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
2 ... 30 mm <sup>1</sup>	PNP	Cable, 2 m, 4-wire	FT 10-BF2-PS-K4	600-11026
2 ... 30 mm <sup>1</sup>	NPN	Cable, 2 m, 4-wire	FT 10-BF2-NS-K4	600-11029
2 ... 30 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF2-PS-KM4	600-11027
2 ... 30 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF2-NS-KM4	600-11030
2 ... 30 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF2-PS-KM3	600-11028
2 ... 30 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF2-NS-KM3	600-11031
2 ... 50 mm <sup>1</sup>	PNP	Cable, 2 m, 4-wire	FT 10-BF3-PS-K4	600-11036
2 ... 50 mm <sup>1</sup>	NPN	Cable, 2 m, 4-wire	FT 10-BF3-NS-K4	600-11039
2 ... 50 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF3-PS-KM4	600-11037
2 ... 50 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 4-pin	FT 10-BF3-NS-KM4	600-11040
2 ... 50 mm <sup>1</sup>	PNP	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF3-PS-KM3	600-11038
2 ... 50 mm <sup>1</sup>	NPN	Pigtail, 200 mm with M8 plug, 3-pin	FT 10-BF3-NS-KM3	600-11041

Including dovetail clamp mounting MBD F 10 for all types





**Accessories**

Connection cables	From Page 22
Brackets	From Page 18

# FT 25-BF2

BlueLight-Photoelectric diffuse sensor with background suppression, fixed focus



## PRODUCT HIGHLIGHTS

- Miniature sensor with BlueLight technology and precise fixed background suppression
- Reliable switching behaviour with strongly light-absorbing and highly transparent objects
- Reliable operation without reflector - even with critical surfaces
- Tamper-proof sensor design - no misalignment possible
- Simple mounting and adjustment through innovative dovetail clamp mounting

Optical data		Functions	
Scanning distance	0 ... 80 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Background suppression from	100 mm	Indicator LED, yellow	Switching output indicator
Type of light	LED, blue, 450 nm	Adjustment possibilities	N.O./N.C. via control input
Light spot size	See diagram		
Hysteresis	~ 1% <sup>2</sup>		
Ambient light	EN 60947-5-2		
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>3</sup>	Dimensions	34 x 20 x 12 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69K & IP 67 <sup>4</sup>
Output current, I <sub>e</sub>	≤ 100 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection (Q)	Material, front screen	PMMA
Protection Class	2	Type of connection	See selection table
Power On Delay	< 300ms	Ambient temperature: operation	-20 ... +60 °C <sup>5</sup>
Switching output, Q	PNP/NPN (see selection table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	10 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (cable device)	40 g
Response time	500 μs	Vibration and impact resistance	EN 60947-5-2
Control input, IN	+U <sub>B</sub> = N.C. -U <sub>B</sub> / Open = N.O.		

<sup>1</sup> Reference material: white, 90 % reflectivity

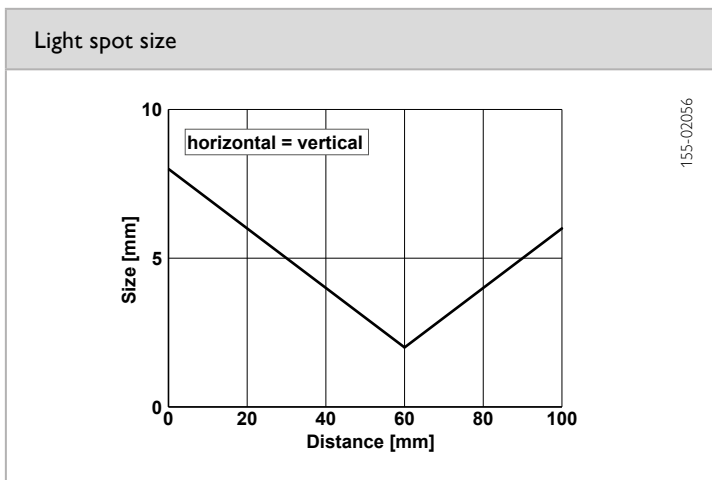
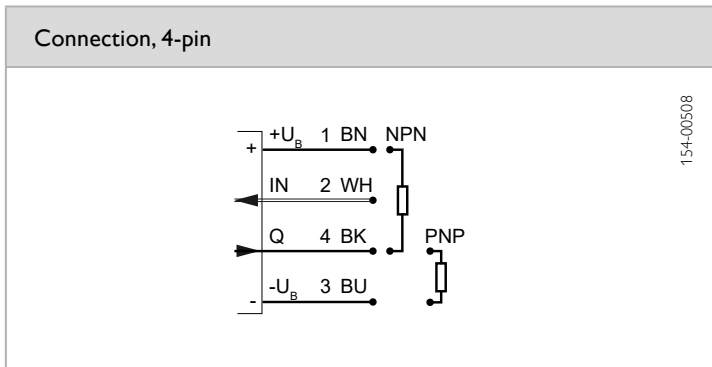
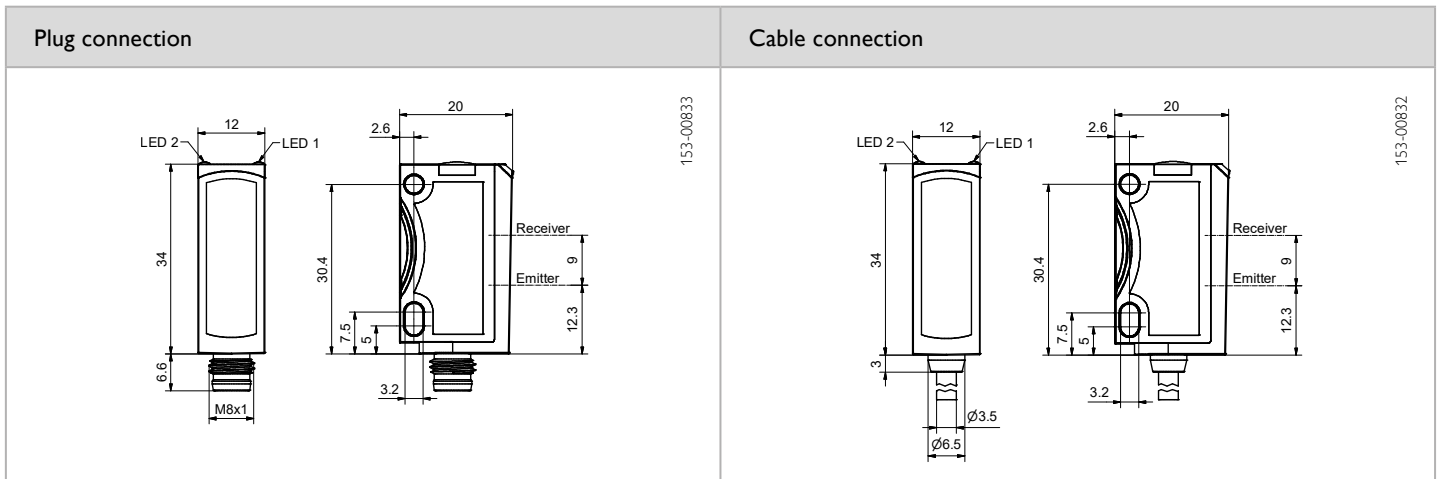
<sup>2</sup> Based on scanning distance

<sup>3</sup> Max. 10 % ripple, within U<sub>B</sub>, ~ 50 Hz / 100 Hz

<sup>4</sup> With connected IP 67 / IP 69K plug

<sup>5</sup> UL: -20 ... +50 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
0 ... 80 mm	PNP	Plug, M8x1, 4-pin	FT 25-BF2-PS-M4	608-11038
0 ... 80 mm	NPN	Plug, M8x1, 4-pin	FT 25-BF2-NS-M4	608-11039
0 ... 80 mm	PNP	Cable, 2 m, 4-wire	FT 25-BF2-PS-K4	608-11040
0 ... 80 mm	NPN	Cable, 2 m, 4-wire	FT 25-BF2-NS-K4	608-11041



Reference material	Detection range
White (90 %)	0 ... 80 mm
Grey (18 %)	0 ... 80 mm
Black (6 %)	1 ... 80 mm

Accessories	
Connection cables	From Page 22
Brackets	From Page 19

# FT 25-BH

BlueLight-Photoelectric diffuse sensor with background suppression



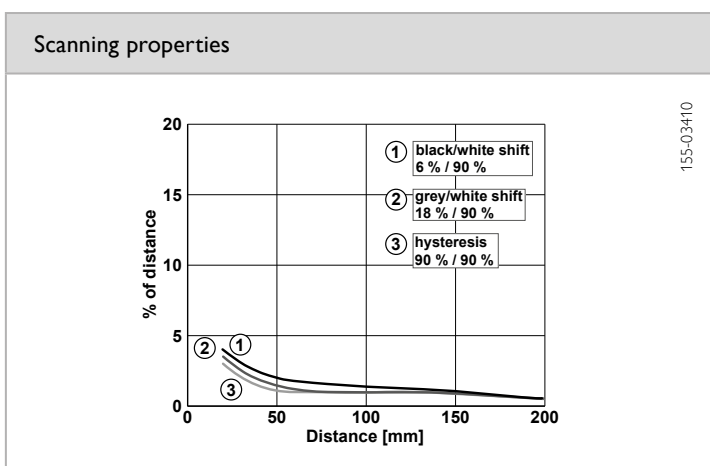
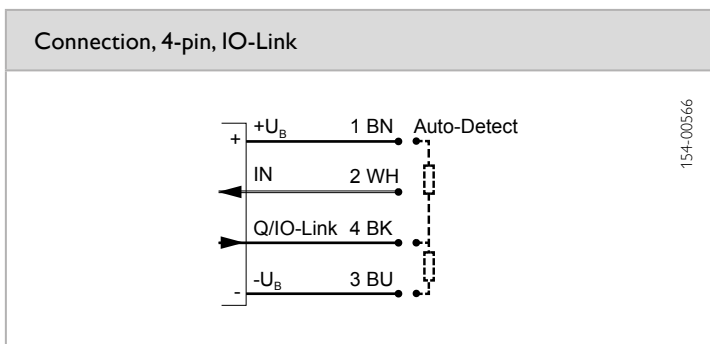
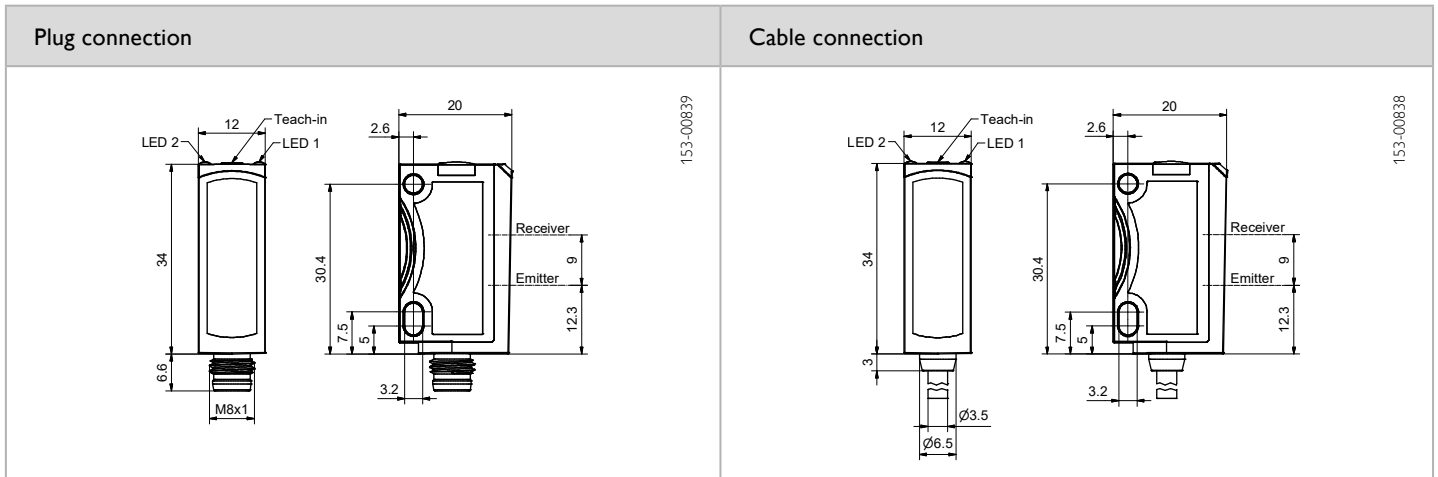
## PRODUCT HIGHLIGHTS

- Miniature sensor with BlueLight technology and precisely adjustable background suppression
- Reliable switching with strongly light absorbing and shiny objects
- Reliable operation even with highly reflective backgrounds thanks to SensoPart ASIC technology
- Simple alignment thanks to easily visible light spot
- Sensor setting via teach-in, control input and IO-Link
- Robust glass-fibre-reinforced plastic housings

Optical data		Functions	
Scanning distance	0 ... 200 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Adjustment range	10 ... 200 mm <sup>1</sup>	Indicator LED, yellow	Switching output indicator
Type of light	LED, blue, 450 nm	Scanning distance adjustment	Via Teach-in button, control input <sup>3</sup> and IO-Link
Light spot size	7 mm x 7 mm	Teach-in modes	Mode 1: during running process Mode 2: during standing process
		Adjustment possibilities	N.O./N.C. and Auto-Detect / NPN / PNP via teach-in button, control input <sup>3</sup> and IO-Link Button lock via control input <sup>3</sup> and IO-Link Wide variety of adjustment possibilities via IO-Link
		Default settings	Max. scanning distance and N.O.
Electrical data		Mechanical data	
Operating voltage, +U <sub>B</sub>	10 ... 30V DC <sup>2</sup>	Dimensions	34 x 20 x 12 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69 & IP 67 <sup>5</sup>
Output current, I <sub>e</sub>	≤ 100 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U <sub>B</sub> / short-circuit protection (Q)	Material, front screen	PMMA
Protection Class	2	Type of connection	See selection table
Power On Delay	< 300 ms	Ambient temperature: operation	-20 ... +60 °C <sup>6</sup>
Switching output, Q	1x Auto-Detect (PNP/NPN) <sup>4</sup>	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	10 g
Switching frequency, f (ti/tp 1:1)	≤ 700 Hz	Weight (metal plug device <sup>7</sup> )	10 g
Response time	500 μs	Weight (cable device)	40 g
Control input, IN <sup>3</sup>	+U <sub>B</sub> = teach-in -U <sub>B</sub> = button locked Open = normal operation	Weight (pigtail)	20 g
		Vibration and impact resistance	EN 60947-5-2
IO-Link			
Communication mode	COM 2		
Min. cycletime	2.3 ms		
SIO mode	Compatible		
Length process data	16 Bit		
Specification	1.1		

<sup>1</sup> Reference material: white, 90 % reflectivity    <sup>2</sup> Max. 10 % ripple, within U<sub>B</sub>, ~ 50 Hz / 100 Hz    <sup>3</sup> Only 4-pin design    <sup>4</sup> Auto-Detect, automatic PNP/NPN selection by the sensor; PNP or NPN fixed    <sup>5</sup> With connected IP 67 / IP 69 plug    <sup>6</sup> UL: -20 ... +50 °C    <sup>7</sup> No Ecolab

Scanning distance	Switching output	Type of connection	Part number	Article number
0 ... 200 mm	Auto-Detect	Metal plug, M8x1, 4-pin, IO-Link	FT 25-BH-PNSL-M4M	608-11063
0 ... 200 mm	Auto-Detect	Plug, M8x1, 4-pin, IO-Link	FT 25-BH-PNSL-M4	608-11064
0 ... 200 mm	Auto-Detect	Pigtail, 150 mm with plug, M8, 4-pin, IO-Link	FT 25-BH-PNSL-KM4	608-11065



Reference material	Detection range	Accessories
White (90 %)	0 ... 200 mm	Connection cables
Grey (18 %)	0 ... 200 mm	Brackets
Black (6 %)	2 ... 200 mm	

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From Page 19

# FT 50 BH

BlueLight-Photoelectric diffuse sensor with background suppression



## PRODUCT HIGHLIGHTS

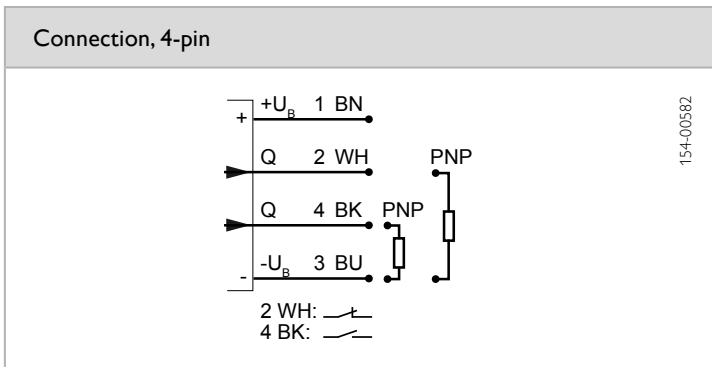
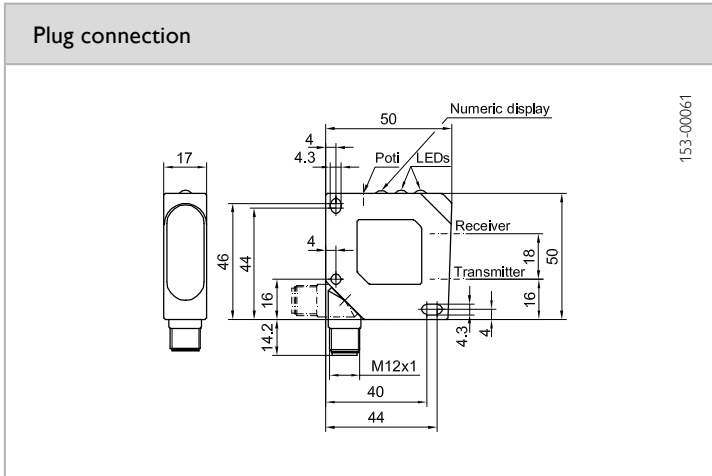
- Precisely adjustable background suppression
- Simple scanning distance adjustment thanks to indicator scale
- Plug connector rotatable

Optical data		Functions	
Scanning distance	40 ... 300 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Type of light	LED, blue, 450 nm	Indicator LED, yellow	Switching output indicator
Light spot size <sup>2</sup>	5 x 5 mm <sup>2</sup>	Indicator LED, red	Contamination indicator
		Scanning distance adjustment	Via potentiometer
Electrical data		Mechanical data	
Operating voltage, +U <sub>b</sub>	10 ... 30V DC <sup>3</sup>	Dimensions	50 x 50 x 17 mm
No-load current, I <sub>0</sub>	≤ 35 mA <sup>4</sup>	Enclosure rating	IP 67 <sup>5</sup>
Output current, I <sub>e</sub>	≤ 200 mA	Material, housing	ABS
Protective circuits	Reverse-polarity protection, U <sub>b</sub> / short-circuit protection (Q)	Material, front screen	PMMA
Protection Class	2	Type of connection	See selection table
Power On Delay	≤ 300 ms	Ambient temperature: operation	-20 ... +60 °C
Switching output, Q	PNP/NPN, antivalent (see selection table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C. (see selection table)	Weight (plug device)	40 g
Switching frequency, f (ti/tp 1:1)	≤ 1000 Hz	Weight (cable device)	130 g
Response time	500 μs	Vibration and impact resistance	EN 60947-5-2
Connection, BK	N.O.		
Connection, WH	N.C.		
Contamination output, WH (optional)	N.O. (see selection table)		

<sup>1</sup> Reference material: grey, 18 % reflectivity    <sup>2</sup> At scanning distance of 200 mm    <sup>3</sup> Max. 10 % ripple, within U<sub>b</sub>    <sup>4</sup> At 24V DC    <sup>5</sup> With connected IP 67 plug

Scanning distance	Switching output	Type of connection	Part number	Article number
40 ... 300 mm	PNP, antivalent	Plug, M12x1, 4-pin	FT 50 BH-PAL4	572-51070





**Accessories**

Connection cables	From Page 23
Brackets	From Page 21

# FT 55-BH

BlueLight-Photoelectric diffuse sensor with background suppression



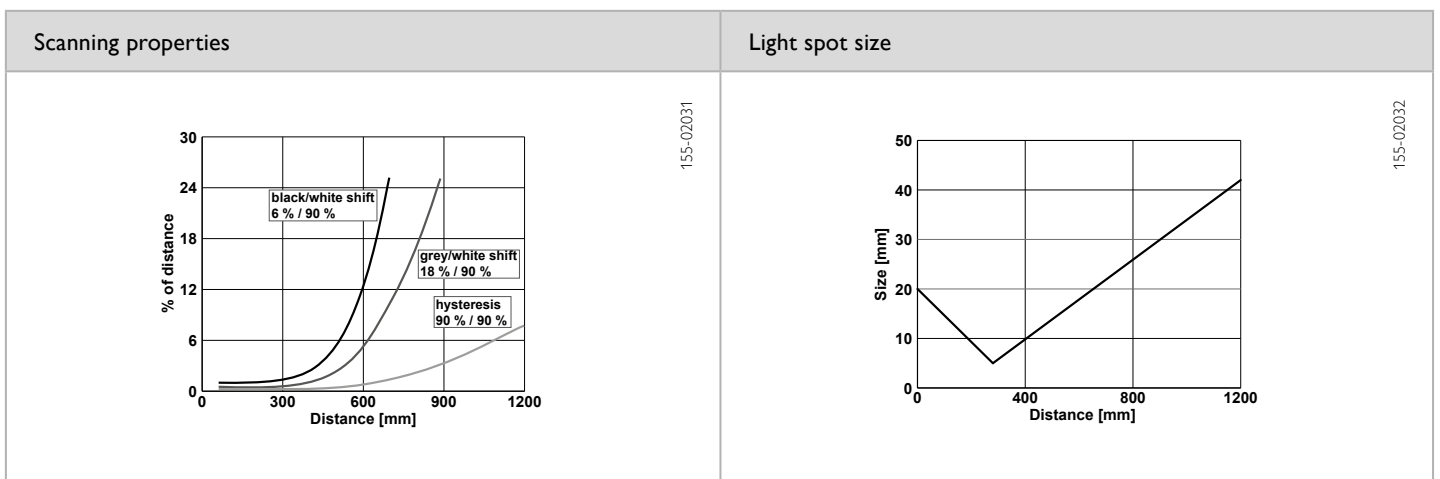
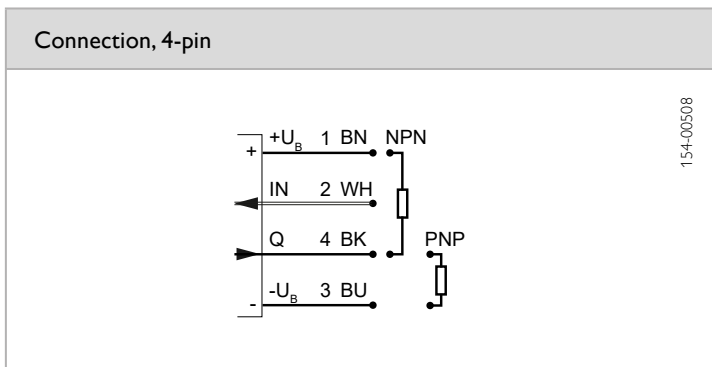
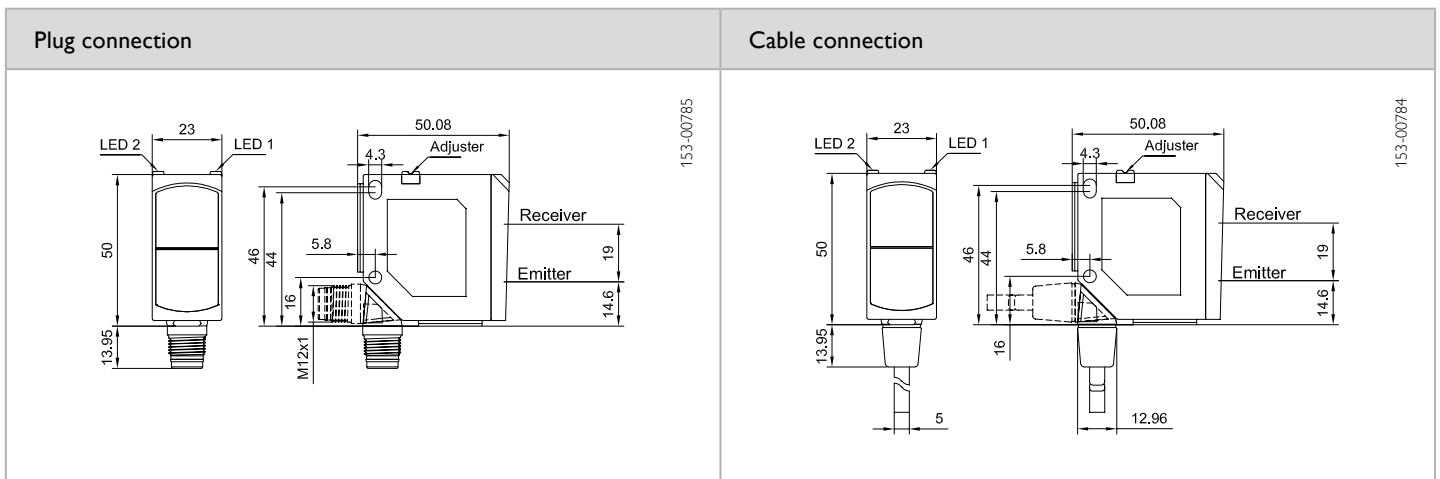
## PRODUCT HIGHLIGHTS

- 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°

Optical data		Functions	
Scanning distance	3 ... 1200 mm <sup>1</sup>	Indicator LED, green	Operating voltage indicator
Type of light	LED, blue, 450 nm	Indicator LED, yellow	Switching output indicator / contamination indicator
Light spot size	See diagram	Scanning distance adjustment	Via potentiometer
Ambient light	EN 60947-5-2	Adjustment possibilities	N.O./N.C. via control input
		Default settings	S <sub>n</sub> = 500 mm (6 %)
Electrical data		Mechanical data	
Operating voltage, +U <sub>b</sub>	10 ... 30V DC <sup>2</sup>	Dimensions	50 × 50.1 × 23 mm
No-load current, I <sub>0</sub>	≤ 30 mA	Enclosure rating	IP 69K & IP 67 <sup>3</sup>
Output current, I <sub>e</sub>	≤ 100 mA	Material, housing	PC-ABS
Protective circuits	Reverse-polarity protection, U <sub>b</sub> / short-circuit protection (Q)	Material, front screen	PMMA
Protection Class	2	Type of connection	See selection table
Power On Delay	< 300 ms	Ambient temperature: operation	-20 ... +60 °C <sup>4</sup>
Switching output, Q	PNP/NPN (see selection table)	Ambient temperature: storage	-20 ... +80 °C
Output function	N.O./N.C.	Weight (plug device)	35 g
Switching frequency, f (ti/tp 1:1)	≤ 600 Hz	Weight (cable device)	125 g
Response time	830 μs	Vibration and impact resistance	EN 60947-5-2
Control input, IN	+U <sub>b</sub> = N.C. -U <sub>b</sub> / Open = N.O.		

<sup>1</sup> Reference material: white, 90 % reflectivity    <sup>2</sup> Max. 10 % ripple, within U<sub>b</sub>, ~ 50 Hz / 100 Hz    <sup>3</sup> With connected IP 67 / IP 69K plug    <sup>4</sup> UL: max. +45 °C

Scanning distance	Switching output	Type of connection	Part number	Article number
3 ... 1200 mm	PNP	Plug, M12x1, 4-pin	FT 55-BH-PS-L4	623-11036
3 ... 1200 mm	NPN	Plug, M12x1, 4-pin	FT 55-BH-NS-L4	623-11037
3 ... 1200 mm	PNP	Plug, M12x1, 4-pin	FT 55-BH2-PS-L4	623-11041
3 ... 1200 mm	NPN	Plug, M12x1, 4-pin	FT 55-BH2-NS-L4	623-11042



Reference material	Detection range
White (90 %)	3 ... 1200 mm
Grey (18 %)	5 ... 750 mm
Black (6 %)	10 ... 600 mm

### Accessories

Connection cables	From Page 23
Brackets	From Page 21

# Accessories

## Brackets




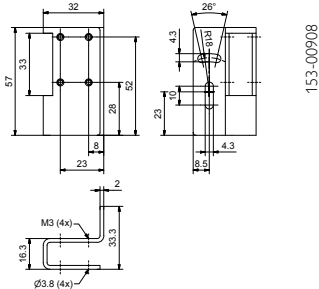

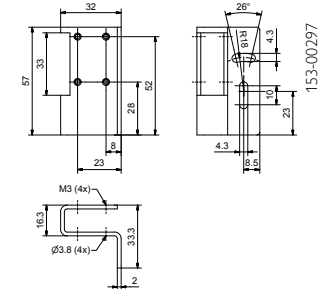

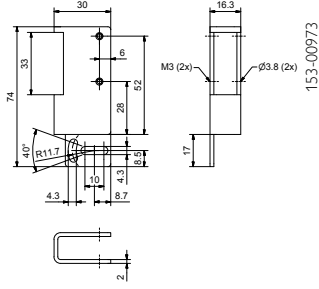

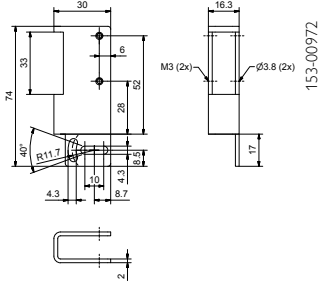

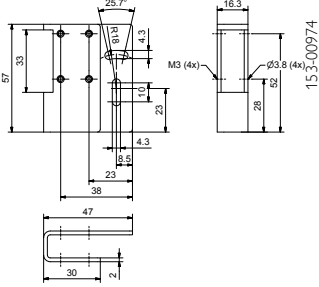

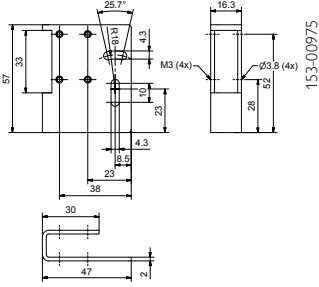
- Brackets

Brackets for FT 10 series			
		<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MBD F 10 / 660-01001</p> <p>Dovetail clamp mounting, adjustable <math>\pm 10^\circ</math></p> <p>Material: PBT</p> <p>F 10</p>
		<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MBD F 10ST2 / 660-01004</p> <p>Universal rod mounting component for attaching dovetail F 10 to mounting rods <math>\varnothing 6</math> mm adjustable <math>\pm 45^\circ</math></p> <p>Material: die-cast zinc</p> <p>F 10</p>
		<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MS F 10 / 660-01000</p> <p>Mounting bracket with screws</p> <p>1x mounting plate M3</p> <p>1x mounting plate <math>\varnothing 3.1</math> mm</p> <p>Material: stainless steel V2A</p> <p>F 10</p>



# Accessories

## Brackets

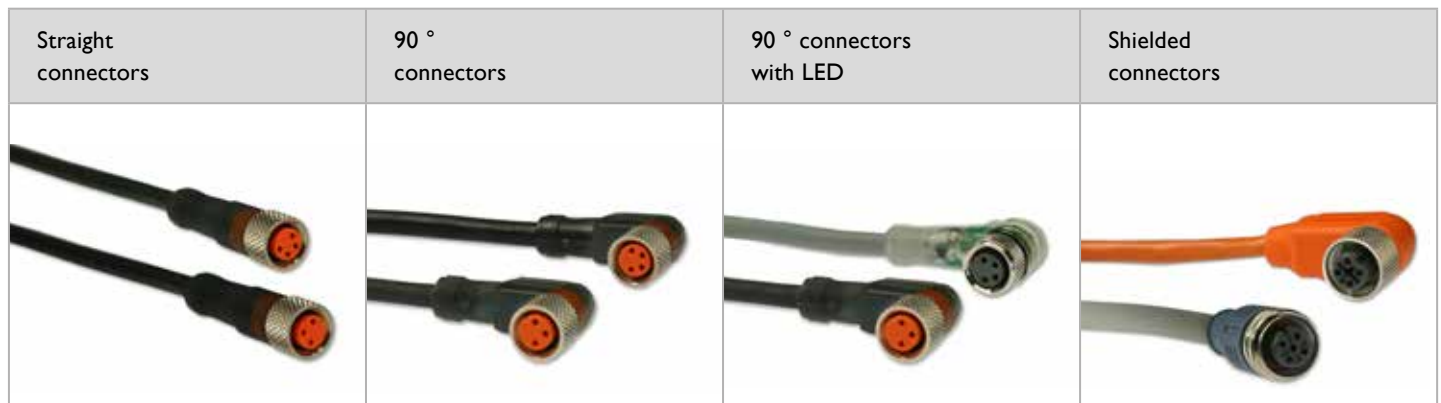
Brackets for FT 25 (Cont.)			
	 <p>153-00908</p>	<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MSP F 20-23 / 558-41011</p> <p>Protective sensor angle bracket with screws, very robust Material: stainless steel V2A</p> <p>F 25</p>
	 <p>153-00297</p>	<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MSP F 20-2 / 558-41005</p> <p>Protective sensor angle bracket with screws, very robust Material: stainless steel V2A</p> <p>F 25</p>
	 <p>153-00973</p>	<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MSP F 20-13 / 558-41008</p> <p>Protective sensor angle bracket with screws, very robust Material: stainless steel V2A</p> <p>F 25</p>
	 <p>153-00972</p>	<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MSP F 20-12 / 558-41007</p> <p>Protective sensor angle bracket with screws, very robust Material: stainless steel V2A</p> <p>F 25</p>
	 <p>153-00974</p>	<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MSP F 20-21 / 558-41009</p> <p>Protective sensor angle bracket with screws, very robust Material: stainless steel V2A</p> <p>F 25</p>
	 <p>153-00975</p>	<p>Part number / Article number</p> <p>Description</p> <p>Suitable for</p>	<p>MSP F 20-22 / 558-41010</p> <p>Protective sensor angle bracket with screws, very robust Material: stainless steel V2A</p> <p>F 25</p>





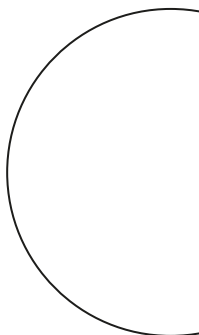
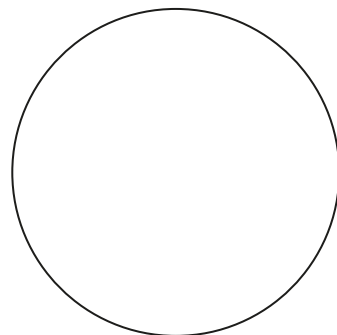
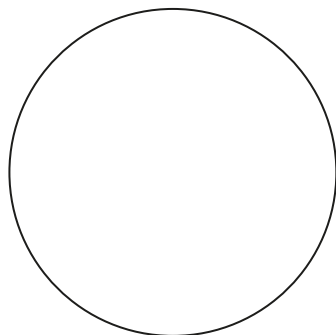
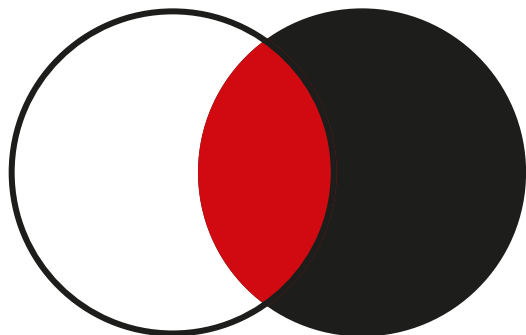
# Accessories

## Cables

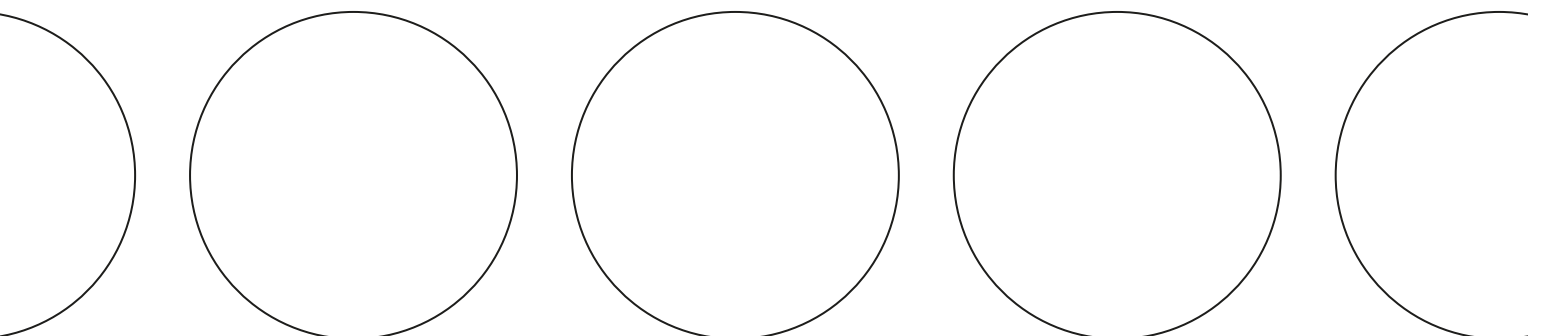


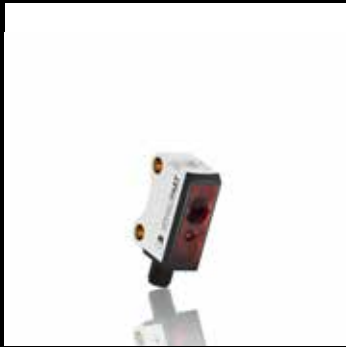
## SENSOR Cables

Part number	Article number	Description
<b>M8 socket, 3-pin</b> <hr/> K3-2m-G-PUR K3-5m-G-PUR K3-10m-G-PUR K3-2m-W-PUR K3-5m-W-PUR K3-2m-W-PL-PUR K3-5m-W-PL-PUR K3-10m-W-PL-PUR	<hr/> 902-50679 902-51614 902-50694 902-50681 902-51615 902-50683 902-51616 902-50693	<b>Connection lines for actuators and sensors with self-locking threaded joint, unshielded, suitable for drag chains</b> <hr/> 2 m, straight, PUR, IP 67 / IP 69K 5 m, straight, PUR, IP 67 / IP 69K 10 m, gerade, PUR, IP 67 / IP 69K 2 m, 90 °, PUR, IP 67 / IP 69K 5 m, 90 °, PUR, IP 67 / IP 69K 2 m, 90 °, PUR, IP 67 / IP 69K, with indicator LED 5 m, 90 °, PUR, IP 67 / IP 69K, with indicator LED 10 m, 90 °, PUR, IP 67 / IP 69K, with indicator LED
<b>M8 socket, 4-pin</b> <hr/> K4-2m-G-PUR K4-5m-G-PUR K4-10m-G-PUR K4-2m-W-PUR K4-5m-W-PUR K4-10m-W-PUR K4-2m-W-PL-PUR K4-5m-W-PL-PUR CM4 FG-E-5m-PVC CM4 FW-E-5m-PVC	<hr/> 902-50801 902-51617 902-51610 902-50803 902-51618 902-51629 902-51642 902-51643 902-50221 902-50222	<b>Connection lines for actuators and sensors with self-locking threaded joint, unshielded, suitable for drag chains</b> <hr/> 2 m, straight, PUR, IP 67 / IP 69K 5 m, straight, PUR, IP 67 / IP 69K 10 m, straight, PUR, IP 67 / IP 69K 2 m, 90 °, PUR, IP 67 / IP 69K 5 m, 90 °, PUR, IP 67 / IP 69K 10 m, 90 °, PUR, IP 67 / IP 69K 2 m, 90 °, PUR, IP 65 / IP 67 / IP 68, with indicator LED 5 m, 90 °, PUR, IP 65 / IP 67 / IP 68, with indicator LED 5 m, straight, PVC, IP 67, hex nut SW 9V2A, suited for food and beverages industries 5 m, 90 °, PVC, IP 67 / IP 69K, hex nut SW 9V2A, suited for food and beverages industries



Part number	Article number	Description
<b>M12 socket, 4-pin</b> <hr/> L4-300mm-G-PUR <hr/> L4-2m-G-PUR <hr/> L4-5m-G-PUR <hr/> L4-10m-G-PUR <hr/> L4-2m-W-PUR <hr/> L4-5m-W-PUR <hr/> L4-2m-W-PL-PUR <hr/> L4-5m-W-PL-PUR <hr/> L4-10m-W-PL-PUR <hr/> L4-15m-W-PL-PUR	<hr/> 902-50811 <hr/> 902-50805 <hr/> 902-51612 <hr/> 902-51628 <hr/> 902-50807 <hr/> 902-51602 <hr/> 902-50808 <hr/> 902-51603 <hr/> 902-51604 <hr/> 902-51607	<b>Connection lines for actuators and sensors with self-locking threaded joint, unshielded, suitable for drag chains</b> <hr/> 0.3 m, straight, a-coded, PUR, IP 65 / IP 67 / IP 68 <hr/> 2 m, straight, a-coded, PUR, IP 65 / IP 67 / IP 68 <hr/> 5 m, straight, a-coded, PUR, IP 65 / IP 67 / IP 68 <hr/> 10 m, straight, a-coded, PUR, IP 65 / IP 67 / IP 68 <hr/> 2 m, 90 °, a-coded, PUR, IP 65 / IP 67 / IP 68 <hr/> 5 m, 90 °, a-coded, PUR, IP 65 / IP 67 / IP 68 <hr/> 2 m, 90 °, a-coded, PUR, IP 65 / IP 67 / IP 68, with indicator LED <hr/> 5 m, 90 °, a-coded, PUR, IP 65 / IP 67 / IP 68, with indicator LED <hr/> 10 m, 90 °, a-coded, PUR, IP 65 / IP 67 / IP 68, with indicator LED <hr/> 15 m, 90 °, a-coded, PUR, IP 65 / IP 67 / IP 68, with indicator LED
<b>M12 socket, 4-pin</b> <hr/> L4S-2m-G-PVC <hr/> L4S-5m-G-PVC <hr/> L4S-10m-G-PVC <hr/> L4S-2m-W-PVC <hr/> L4S-5m-W-PVC	<hr/> 902-51632 <hr/> 902-51634 <hr/> 902-51651 <hr/> 902-51633 <hr/> 902-51635	<b>Connection lines for actuators and sensors with self-locking threaded joint, shielded 360 °</b> <hr/> 2 m, straight, a-coded, PVC, IP 67 <hr/> 5 m, straight, a-coded, PVC, IP 67 <hr/> 10 m, straight, a-coded, PVC, IP 67 <hr/> 2 m, 90 °, a-coded, PVC, IP 67 <hr/> 5 m, 90 °, a-coded, PVC, IP 67
<b>M12 socket, 4-pin</b> <b>* M12 plug, 4-pin</b> <hr/> CL4 FG-E-5m-PVC <hr/> CL4 FW-E-5m-PVC <hr/> L4 KDG <hr/> L4 KDW <hr/> LS4-60-G-K	<hr/> 902-50219 <hr/> 902-50220 <hr/> 022-50812 <hr/> 022-50813 <hr/> 022-10773*	<b>Connection lines, plugs and sockets ready to assemble, for actuators and sensors with self-locking threaded joint, unshielded</b> <hr/> 5 m, straight, PVC, IP 67, hex nut SW 9 V2A, suited for food and beverages industries <hr/> 5 m, 90 °, PVC, IP 67 / IP 69K, hex nut SW 14 V2A, suited for food and beverages industries <hr/> Coupling socket, ready to assemble, straight, with threaded joint, PBT, IP 67 <hr/> Coupling socket, ready to assemble, 90 °, with threaded joint, PBT, IP 67 <hr/> Connector, ready to assemble, with threaded joint, PA, IP 67
<b>M12, 4-pin - M12, 4-pin Plug - socket</b> <hr/> L4F/L4M-0,48 PUR <hr/> L4F/L4M-B-codiert-0,48 PUR <hr/> L4F/L4M-B-codiert-0,48-X02 PUR <hr/> L4F/L4M/B-codiert-1,00 PUR	<hr/> 902-51670 <hr/> 902-51739 <hr/> 902-51823 <hr/> 902-51827	<b>Connection lines, specifically for FT 85 with self-locking threaded joints, unshielded, suitable for drag chains</b> <hr/> 0.48 m, M12 90 °, a-coded to M12 straight, a-coded, PUR, IP 67 <hr/> 0.48 m, M12 90 °, a-coded to M12 straight, b-coded, PUR, IP 67 <hr/> 0.48 m, M12 90 °, a-coded to M12 straight, b-coded, twist PIN 2 & 4, PUR, IP 67 <hr/> 1 m, M12 90 °, a-coded to M12 straight, b-coded, PUR, IP 67





“We gauge ourselves not by what is possible today, but by our vision of what can be achieved” – this has been our motto since the foundation of SensoPart in 1994. Our goal is to always be a step ahead and to be able to offer our customers the most innovative sensor for industrial automation.

True to this motto, we offer easy-to-integrate VISOR® vision sensors and compact laser sensors with outstanding background suppression made in Germany.

We still also have plenty of ideas for the future - watch this space.

## SENSOR TECHNOLOGY

- Light barriers
- Diffuse sensors
- Laser sensors
- Miniature sensors
- Distance sensors
- Color sensors
- Contrast sensors
- Anti-collision sensors
- Slot sensors
- Fiber-optic sensors
- Inductive sensors
- Ultrasonic sensors

- Vision sensors
- Smart cameras
- Vision systems
- Object detection
- Object measurement
- Color detection
- Code reading
- Lighting
- Lenses

**Germany**  
SensoPart  
Industriesensorik GmbH  
79288 Gottenheim  
Tel. +49 7665 94769-0  
info@sensopart.de

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

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

**USA**  
SensoPart Inc.  
30600 Telegraph Rd.  
Suite 2345,  
Bingham Farms, MI, 48025  
usa@sensopart.com

**China**  
SensoPart China  
201803 Shanghai  
Tel. +86 21 69017660  
china@sensopart.cn