



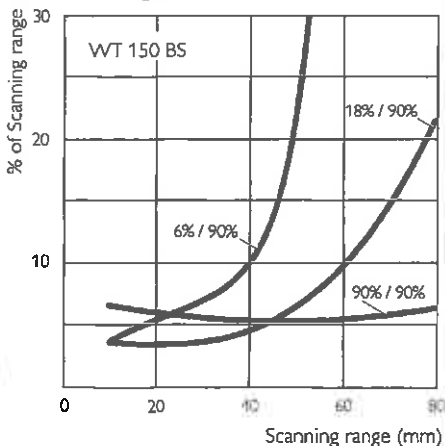
## Scanning Range Adjustable

10 ... 100 mm  
with background  
suppression (BS)



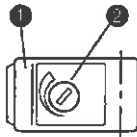
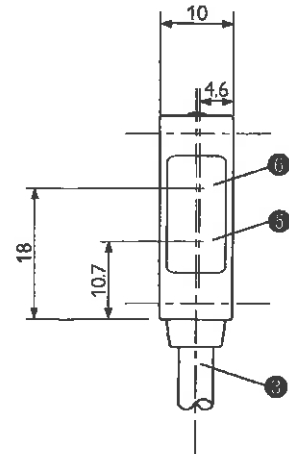
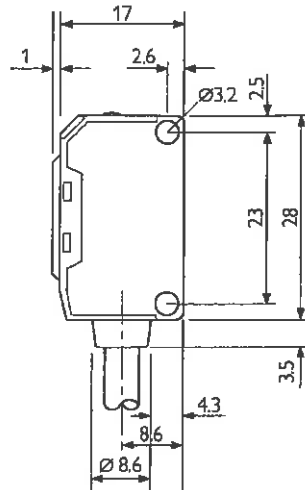
### Features:

- Miniature photoelectric switch with integrated amplifier
- Miniature size ideal for installations where there is little room
- With background suppression (BS) for certain detection of dark objects in front of a light background
- Switching point largely independent from object colour and surface
- Scanning distance steplessly variable
- Scanning range controller (5 U)
- Red light sender LED to assist with adjustment
- Direct voltage supply
- 2 m connection cable or M 8-4 equipment plug
- CE / (UL)

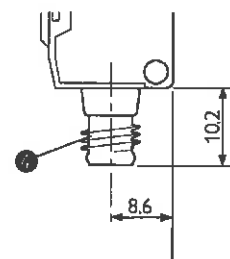


## WT 150

### WT150-PI-N162



### -PI-N460



- 1 Red LED indicator: Light received  $\geq$  Switching threshold
- 2 Scanning range controller (5 U)
- 3 Connection cable
- 4 Equipment plug M8-4 pin
- 5 Sender axis
- 6 Receiver axis

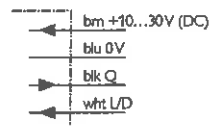
Cable boxes M 8-4 pin, see accessories.

Mounting bracket BEF-W 150-A included.

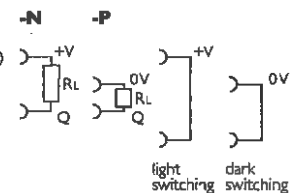
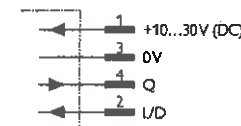
Optional extra: Mounting bracket BEF-W 150-B, see accessories.

## Connection plan

### WT150 -PI-N162



### -PI-N460



L/D = Control wire

brn	blu	blk	wht
brown	blue	black	white
braun	blau	schwarz	weiß

# Photoelectric proximity switches

## WT 150

### with background suppression

	WT 150 -P	-N
Connection type	2 m connection cable	
<b>Equipment designation</b>	WT 150-P 162	WT 150-N 162
<b>Order No.</b>	6 011 048	6 011 045
Connection type	Equipment plug M 8-4 pin	
<b>Equipment designation</b>	WT 150-P 460	WT 150-N 460
<b>Order No.</b>	6 011 050	6 011 047
<b>Scanning Range TW (adjustable)</b>	<b>6 mm ... 100 mm adjustment range);</b> object to be scanned 90 % reflectance <b>min. 2 mm ... 6 mm up to max 10 ... 100 mm;</b> object to be scanned 90 % reflectance <b>min. 2 mm ... 6 mm up to max 10 ... 80 mm;</b> object to be scanned 18 % reflectance <b>min. 3 mm ... 6 mm up to max 10 ... 60 mm;</b> object to be scanned 6 % reflectance	
Background suppression	In % of the adjusted scanning range (see characteristic curve)	
Scanning range adjustment	With potentiometer 5 U, protected against overturning	
Light spot diameter	Approx. 4 mm at 40 mm distance	
Aperture angle	Approx. 5°	
<b>Light sender</b>	LED, visible red light	
<b>Supply voltage <math>V_S</math></b>	DC 10 ... 30 V <sup>1)</sup>	
Current consumption (without load)	max. 20 mA	
Light receiver switching mode	Light/Dark switching with control wire <sup>2)</sup>	
<b>Switching outputs</b> open collector	<b>PNP</b>	<b>NPN</b>
Signal voltage HIGH	$V_S - (\leq 1.5 \text{ V})$	approx. $V_S$
Signal voltage LOW	Approx. 0 V	$\leq 1.5 \text{ V}$
Output current max.	100 mA	
Time delay (max.), Switching frequency (min)	0,5 ms; 1000/s	
<b>VDE Protection class</b>	III	
<b>Protection type (IEC 144)</b>	IP 67 (IEC 144)	
Protection circuits <sup>3)</sup>	A, B, C, D	
Ambient operating temperature $T_A$	- 25 ... + 55 °C	
Storage temperature $T_S$	- 40 ... + 70 °C	
Equipment plug	M 8-4 pin	
Connection cable	PVC, 2 m, 4 x 0.18 mm <sup>2</sup> , $\varnothing$ 3.5 mm	
Weight with equipment plug with 2 m connection cable	7 g	44 g

1) Limit values, ripple max.  $\pm$  10 %

2) Control wire open  
 NPN: light switching  
 PNP: dark switching  
 control wire + V: light switching  
 control wire 0 V: dark switching

3) A =  $V_S$  connections protected against reverse polarity  
 B = Inputs/Outputs protected against reverse polarity  
 C = Interference pulse suppression  
 D = Outputs protected against over-current and short-circuit