



## T8 Series

### Miniature self-contained sensor

### DC operation

#### Wave length

Visible red 660 nm (opposed mode)  
Visible red 680 nm (diffuse mode)

#### Supply

Supply voltage  $U_B$  10...30 VDC  
Ripple  $V_{pp}$   $\leq 10\%$   
No load current  $I_0$   $< 25\text{ mA}$   
Delay upon power up 100  $\mu\text{s}$  (opposed mode)  
150 ms (diffuse mode)

#### Protection

reverse polarity  
transient voltages  
short-circuit of outputs  
continuous overload  
false pulse on power-up

#### Output

Switching function light or dark operate versions  
Switching frequency  $\leq 500\text{ Hz}$  (diffuse mode)  
 $\leq 666\text{ Hz}$  (opposed mode)  
Continuous load current  $\leq 50\text{ mA}$

#### Material

Housing polycarbonate/ABS blend  
Lens acrylic  
Protection class IP67  
(IEC 60529/EN 60529)  
Temperature range  $-20...+55\text{ }^\circ\text{C}$   
Cable 2 m, PVC 3 x 0,1 mm<sup>2</sup>  
Connector *picocon* (M8 x 1)

#### Indicator LEDs

*Opposed mode, emitter (1 green LED)*  
Green supply voltage  
*Opposed mode, receiver (1 green and 1 red LED)*  
Red light sensed  
Red flashing marginal excess gain  
Green supply voltage  
Green flashing output overload  
*Diffuse mode (1 red LED)*  
Red light sensed

#### Accessories

##### Brackets

SMB8MM 30 673 63 right-angled bracket, stainless steel

##### Connectors

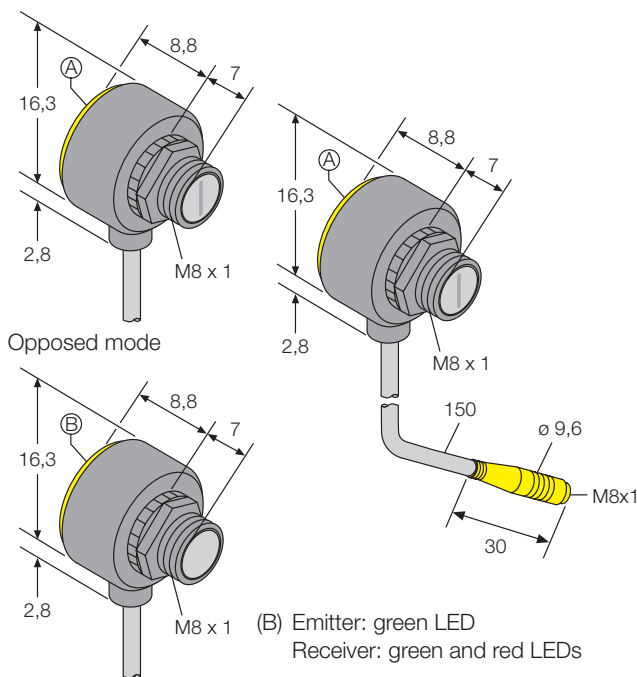
SKP3-2/S90 80 073 32 straight type, PUR  
SWKP3-2/S90 80 073 68 right-angled type, PUR  
SKP3-2/P00 80 073 31 straight type, PVC  
SWKP3-2/P00 80 073 67 right-angled type, PVC

### Dimensions [mm]

#### ● Cable

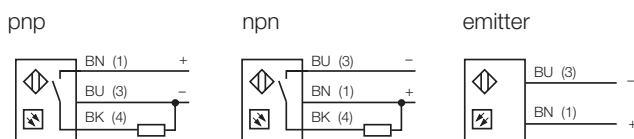
Diffuse mode  
(A) Red LED

#### ● Connector



8 mm threaded nut included

### Wiring



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## Miniature self-contained sensor – DC operation

Excess gain curve:  
Excess gain in relation to the distance

	<i>Max. range</i>	<i>Light source</i>	<i>Output function</i>	<i>Connection</i>	<i>Type</i>	<i>Ident number</i>
<b>Opposed mode</b> 	2 m	red	-	cable	<b>T86EV</b>	30 666 71
	2 m	red	-	connector	<b>T86EVQ</b>	30 666 72
	2 m	red	pn-p, light	cable	<b>T8AP6R</b>	30 666 67
	2 m	red	pn-p, light	connector	<b>T8AP6RQ</b>	30 666 68
	2 m	red	pn-p, dark	cable	<b>T8RP6R</b>	30 666 69
	2 m	red	pn-p, dark	connector	<b>T8RP6RQ</b>	30 666 70
	2 m	red	np-n, light	cable	<b>T8AN6R</b>	30 666 63
	2 m	red	np-n, light	connector	<b>T8AN6RQ</b>	30 666 64
	2 m	red	np-n, dark	cable	<b>T8RN6R</b>	30 666 65
	2 m	red	np-n, dark	connector	<b>T8RN6RQ</b>	30 666 66
<b>Diffuse mode</b> 	50 mm	red	pn-p, light	cable	<b>T8AP6D50</b>	30 666 59
	50 mm	red	pn-p, light	connector	<b>T8AP6D50Q</b>	30 666 60
	50 mm	red	pn-p, dark	cable	<b>T8RP6D50</b>	30 666 61
	50 mm	red	pn-p, dark	connector	<b>T8RP6D50Q</b>	30 666 62
	50 mm	red	np-n, light	cable	<b>T8AN6D50</b>	30 666 55
	50 mm	red	np-n, light	connector	<b>T8AN6D50Q</b>	30 666 56
	50 mm	red	np-n, dark	cable	<b>T8RN6D50</b>	30 666 57
	50 mm	red	np-n, dark	connector	<b>T8RN6D50Q</b>	30 666 58
	100 mm	red	pn-p, light	cable	<b>T8AP6D100</b>	30 686 88
	100 mm	red	pn-p, light	connector	<b>T8AP6D100Q</b>	30 686 89
	100 mm	red	pn-p, dark	cable	<b>T8RP6D100</b>	30 686 90
	100 mm	red	pn-p, dark	connector	<b>T8RP6D100Q</b>	30 686 91
	100 mm	red	np-n, light	cable	<b>T8AN6D100</b>	30 686 84
	100 mm	red	np-n, light	connector	<b>T8AN6D100Q</b>	30 686 85
	100 mm	red	np-n, dark	cable	<b>T8RN6D100</b>	30 686 86
	100 mm	red	np-n, dark	connector	<b>T8RN6D100Q</b>	30 686 87

Subject to changes without notice • Edition 03.02 • P/N ED097



**IMPORTANT SAFETY WARNING!** These sensors do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can result in either an energised or de-energised output condition. These products should not be used as sensing devices for personnel safety.