



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 mA
Delay upon power up 100 μ 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 ≤ 500 Hz (diffuse mode)
 ≤ 666 Hz (opposed mode)
Continuous load current ≤ 50 mA

Material

Housing polycarbonate/ABS blend
Lens acrylic
Protection class IP67
(IEC 60529/EN 60529)
Temperature range $-20...+55$ °C
Cable 2 m, PVC 3 x 0,1 mm²
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

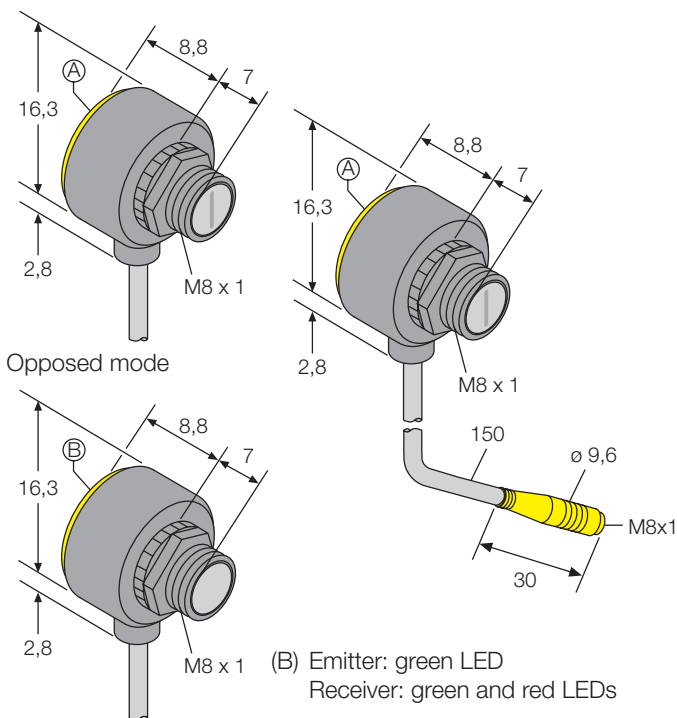
SKP3-2/S90 80 073 32 straight type, PUR
SWKP3-2/S90 80 073 68 right-angled type, PUR
SKP3-2/P00 80 073 31 straight type, PVC
SWKP3-2/P00 80 073 67 right-angled type, PVC

Dimensions [mm]

● Cable

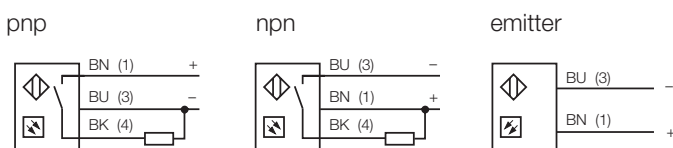
Diffuse mode
(A) Red LED

● Connector



8 mm threaded nut included

Wiring

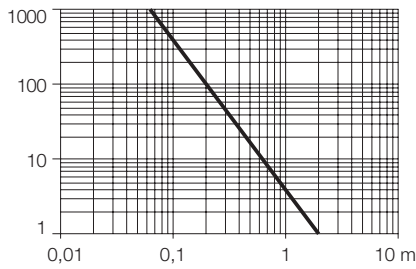


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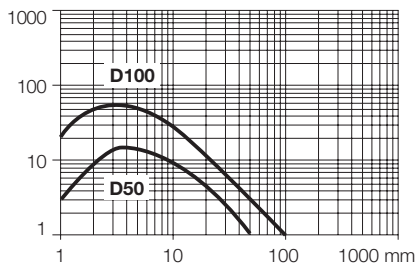
Miniature self-contained sensor – DC operation

Excess gain curve:
Excess gain in relation to the distance

Opposed mode



Diffuse mode



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