

Miniature sensors



**Q10 series
dc operation**

Wave length	IR (infrared)	880 nm
Adjustment		sensitivity (diffuse)
Supply	Supply voltage	10...30 V dc
	Ripple V_{pp}	$\leq 10\%$
	No load current	≤ 20 mA (diffuse) ≤ 15 mA (emitter/receiver)
	Delay upon power up	100 ms
Protection		reverse polarity short-circuit

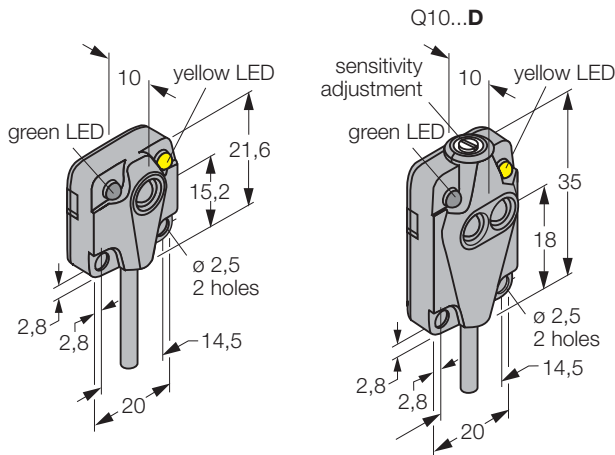
Output	Switching function	light or dark operate versions
	Continuous load current	≤ 150 mA
	Overload trip point	≥ 220 mA typical at 20 °C
	Switching frequency	150 Hz (diffuse) 83 Hz (opposed)

Material	Housing	ABS
	Lens	glass
	Protection class (IEC 60529/EN 60529)	IP67
	Temperature range	-40...+70 °C
	Cable	2 m, PVC, 3 x 0,11 mm ² 2 m, PVC, 2 x 0,11 mm ² (emitter)
	Connector	<i>picocon</i> ($\varnothing 8$ mm)

Indicator LED's	Yellow	light sensed
	Green	supply voltage
	Yellow flashing	low gain
	Green flashing	output overload

Dimensions [mm]

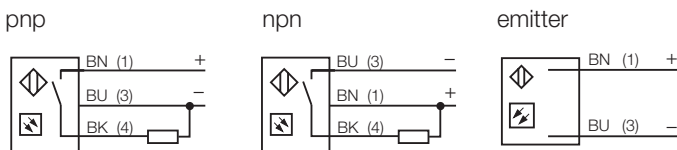
● Cable



● Connector



Wiring



Accessories

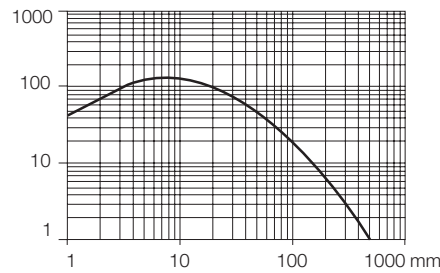
Connectors	KP3-2/S90	80 072 78	straight type, PUR
	WKP3-2/S90	80 073 14	right-angled type, PUR
	KP3-2/P00	80 072 77	straight type, PVC
	WKP3-2/P00	80 073 13	right-angled type, PVC

Q10 series

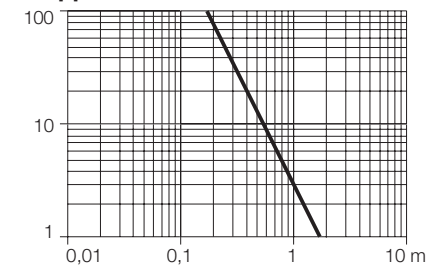
dc operation

Excess gain curve:
Excess gain in relation to the distance

Diffuse



Opposed



	<i>Max. range</i>	<i>Light source</i>	<i>Output function</i>	<i>Connection</i>	<i>Type</i>	<i>Ident number</i>
Diffuse	0,5 m	IR	pnp light	cable	Q10AP6D	30 448 61
	0,5 m	IR	pnp light	connector	Q10AP6DQ	30 448 62
	0,5 m	IR	pnp dark	cable	Q10RP6D	30 448 63
	0,5 m	IR	pnp dark	connector	Q10RP6DQ	30 448 64
	0,5 m	IR	npn light	cable	Q10AN6D	30 448 57
	0,5 m	IR	npn light	connector	Q10AN6DQ	30 448 58
	0,5 m	IR	npn dark	cable	Q10RN6D	30 448 59
	0,5 m	IR	npn dark	connector	Q10RN6DQ	30 448 60
Opposed	1,8 m	IR	(emitter)	cable	Q106E	30 447 56
	1,8 m	IR	pnp light	cable	Q10AP6R	30 447 52
	1,8 m	IR	pnp dark	cable	Q10RP6R	30 447 54
	1,8 m	IR	npn light	cable	Q10AN6R	30 447 48
	1,8 m	IR	npn dark	cable	Q10RN6R	30 447 50
	1,8 m	IR	(emitter)	connector	Q106EQ	30 448 56
	1,8 m	IR	pnp light	connector	Q10AP6RQ	30 447 53
	1,8 m	IR	pnp dark	connector	Q10RP6RQ	30 447 55
	1,8 m	IR	npn light	connector	Q10AN6RQ	30 447 49
	1,8 m	IR	npn dark	connector	Q10RN6RQ	30 447 51

Subject to changes without notice • Edition 02.02 • P/N ED013 – excerpt from EC001/0102



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.