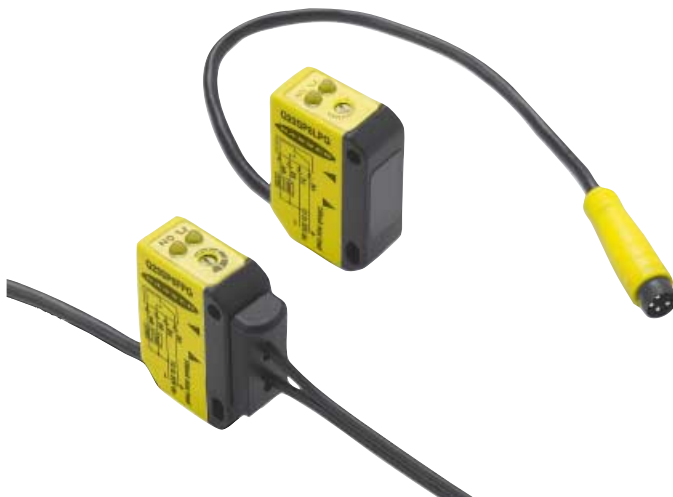


Compact sensors



**Q23 series
dc operation**

Wave length	Red	680 nm
Adjustment		sensitivity
Supply		
Supply voltage		10...30 V dc
Ripple V_{pp}		$\leq 10 \%$
No load current		$\leq 25 \text{ mA}$
		$\leq 20 \text{ mA}$ (emitter/receiver)
Delay upon power up		100 ms

Protection	reverse polarity short-circuit (pulsed)
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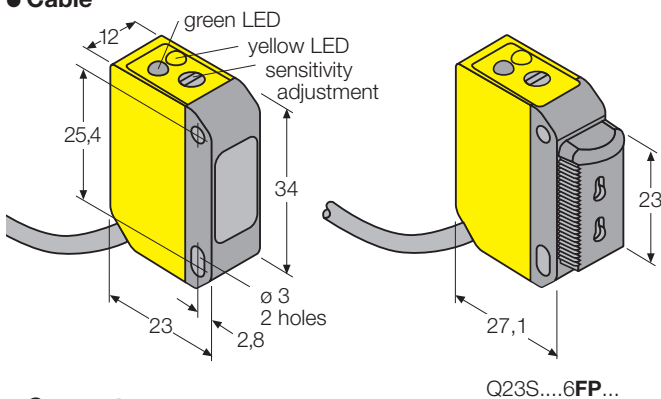
Output	
Programmable (see wiring)	light and dark operate or light operate and alarm
Continuous load current	$\leq 150 \text{ mA}$
Overload trip point	$\geq 220 \text{ mA}$ typical at 20 °C
Switching frequency	$\leq 500 \text{ Hz}$ $\leq 5 \text{ kHz}$ (Q23...FPY)

Material	
Housing	ABS
Lens	acrylic
Protection class (IEC 60529/EN 60529)	IP67
Temperature range	-20...+55 °C
Cable	2 m, PVC, 4 x 0,5 mm ²
Connector	picocon ($\varnothing 8 \text{ mm}$)

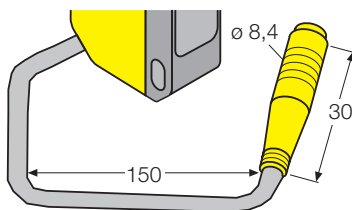
Indicator LED's	
Yellow	light sensed
Green	power on
Yellow flashing	low gain
Green flashing	output overload

Dimensions [mm]

● **Cable**

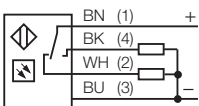


● **Connector**

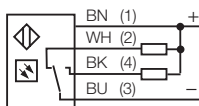


Wiring

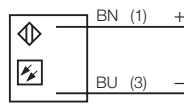
pnp complementary



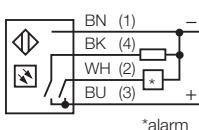
nnp complementary



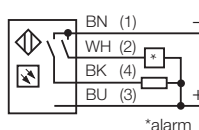
emitter



pnp light op. + alarm



nnp light op. + alarm



Accessories

Bracket	
Bottom mounting bracket	included

Connectors		
KP4-2/S90	80 072 90	straight type
WKP4-2/S90	80 073 26	right-angled type

Q23 series

dc operation

Excess gain curve:
Excess gain in relation to the distance

	Max. range/Fibre type	Light source	Output function	Connection	Type	Ident number
Retro-reflective 	2 m	red	pnP	cable	with polarising filter Q23SP6LP	30 464 30
	2 m	red	pnP	connector	Q23SP6LPQ	30 464 41
	2 m	red	npN	cable	Q23SN6LP	30 464 29
	2 m	red	npN	connector	Q23SN6LPQ	30 464 40
Diffuse 	200 mm	red	pnP	cable	Q23SP6D	30 464 37
	200 mm	red	pnP	connector	Q23SP6DQ	30 464 48
	200 mm	red	npN	cable	Q23SN6D	30 464 36
	200 mm	red	npN	connector	Q23SN6DQ	30 464 47
	800 mm	red	pnP	cable	Q23SP6DL	30 464 32
	800 mm	red	pnP	connector	Q23SP6DLQ	30 464 43
	800 mm	red	npN	cable	Q23SN6DL	30 464 31
	800 mm	red	npN	connector	Q23SN6DLQ	30 464 42
Convergent* 	50 mm	red	pnP	cable	Q23SP6CV50	30 484 04
	50 mm	red	pnP	connector	Q23SP6CV50Q	30 484 02
	50 mm	red	npN	cable	Q23SN6CV50	30 484 03
	50 mm	red	npN	connector	Q23SN6CV50Q	30 484 01
Opposed 	8 m	red	(emitter) pnP	cable cable	Q236E Q23SP6R	30 464 35 30 464 34
	8 m	red	npN (emitter) pnP npN	cable connector connector connector	Q23SN6R Q236EQ Q23SP6RQ Q23SN6RQ	30 464 33 30 464 46 30 464 45 30 464 44
Fibre-optic 	plastic	red	pnP	cable	Q23SP6FP	30 464 39
	plastic	red	pnP	connector	Q23SP6FPQ	30 464 50
	plastic	red	npN	cable	Q23SN6FP	30 464 38
	plastic	red	npN	connector	Q23SN6FPQ	30 464 49
	plastic	red	pnP	cable	Q23SP6FPY	30 464 63
	plastic	red	pnP	connector	Q23SP6FPYQ	30 464 65
	plastic	red	npN	cable	Q23SN6FPY	30 464 62
	plastic	red	npN	connector	Q23SN6FPYQ	30 464 64

* spot size at focus (convergent mode): Q23...CV50: \varnothing 2,25 mm.

Subject to changes without notice • Edition 02.02 • P/N ED002 – 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.