



## QS18 series DC operation

### Wave length

IR (infrared) 940 nm (opposed, diffuse)  
Red 660 nm (retro, convergent)

### Adjustment

potentiometer (convergent, diffuse, retro-reflective)

### Supply

Supply voltage 10...30 V dc  
Ripple  $V_{pp}$   $\leq 10\%$   
No load current  $\leq 25$  mA  
Delay on power up 100 ms

### Protection

reverse polarity  
short-circuit (pulsed)

### Output

Complementary light and dark operate  
Continuous load current  $\leq 100$  mA  
Switching frequency 833 Hz  
888 Hz (opposed mode)

### Material

Housing polycarbonate/ABS  
Protection class IP67  
(IEC 60529/EN 60529)  
Temperature range  $-20...+70$  °C  
Cable 2 m, PVC, 4 x 0,5 mm<sup>2</sup>  
Connector\* *picocon* ( $\varnothing 8$  mm) (...Q7)  
*eurocon* (M12 x 1) (...Q8)

### Indicator LED's

Yellow light sensed  
Green power on  
Yellow flashing low gain  
Green flashing output overload

### Accessories

#### Brackets

SMB18A 34 702 00 right-angled front mounting bracket (models with threaded nose only)  
SMB312S 37 092 00 side mounting bracket

#### Connectors

KP4-2/S90 80 072 90 *picocon*, straight  
WKP4-2/S90 80 073 26 *picocon*, right-angled  
WAK4-2/P00 80 070 46 *eurocon*, straight  
WWAK4-2/P00 80 071 48 *eurocon*, right-angled

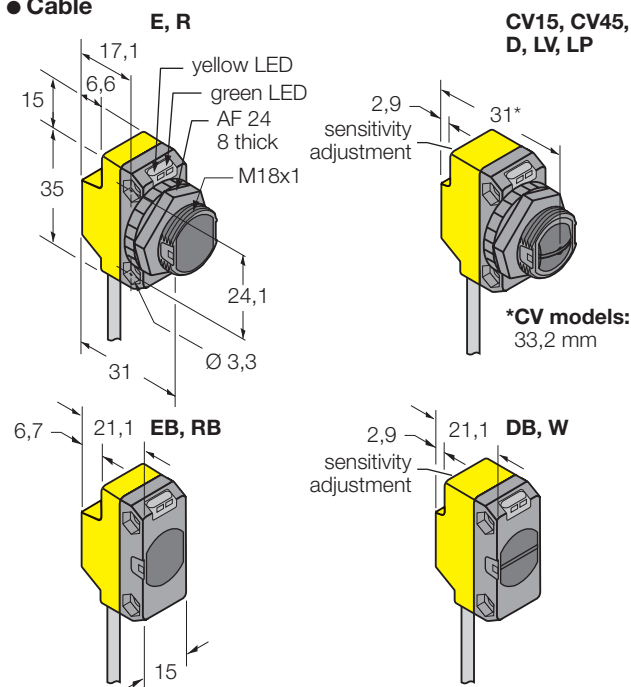
#### Apertures

Snap-on apertures available

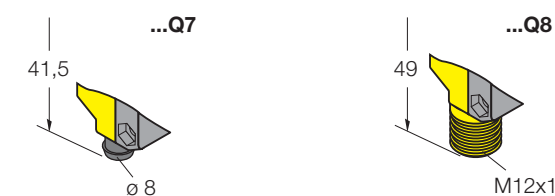
\* Models with *picocon* pigtail connector (...Q) and *eurocon* pigtail connector (...Q5) are also available.

## Dimensions [mm]

### ● Cable

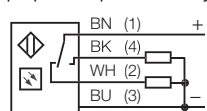


### ● Connector

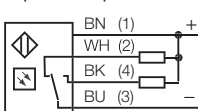


## Wiring

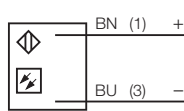
pnp complementary



npn complementary



emitter

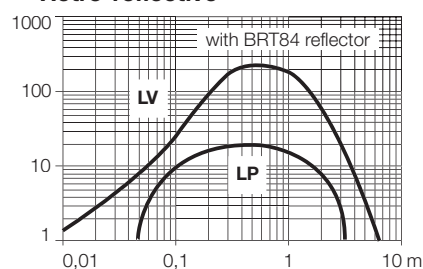


# QS18 series

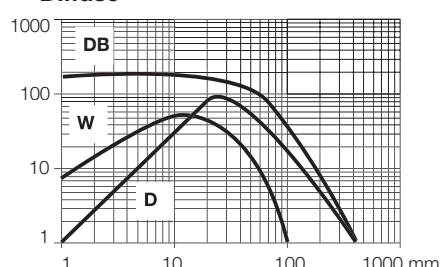
## DC operation

Excess gain curve:  
Excess gain in relation to the distance

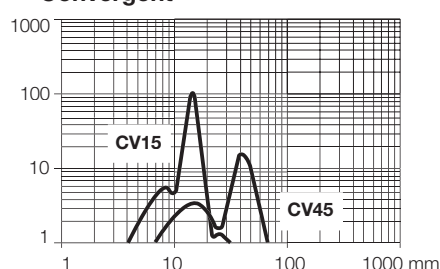
### — Retro-reflective



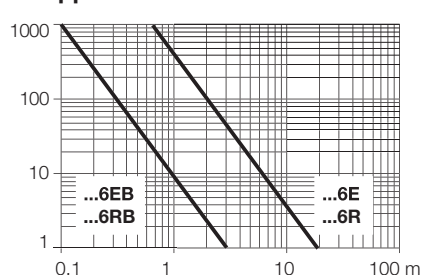
### — Diffuse



### — Convergent\*\*\*



### — Opposed



\* npn versions available on request.

\*\* models with *picocon* pigtail connector (...Q) and *eurocon* pigtail connector (...Q5) are also available.

\*\*\* spot size at focus (convergent mode): QS18...CV15:  $\varnothing$  3,75 mm, QS18...CV45:  $\varnothing$  4,25 mm.

	Max. range	Light source	Output function*	Connection**	Type	Ident number
Retro-reflective	6,5 m	red	pnP	cable	<b>QS18VP6LV</b>	30 616 36
	6,5 m	red	pnP	connector	<b>QS18VP6LVQ7</b>	30 664 32
	6,5 m	red	pnP	connector	<b>QS18VP6LVQ8</b>	30 664 54
	3,5 m	red	pnP	cable	<b>QS18VP6LP</b>	30 616 30
	3,5 m	red	pnP	connector	<b>QS18VP6LPQ7</b>	30 664 30
	3,5 m	red	pnP	connector	<b>QS18VP6LPQ8</b>	30 664 52
Diffuse	450 mm	IR	pnP	cable	<b>QS18VP6D</b>	30 616 54
	450 mm	IR	pnP	connector	<b>QS18VP6DQ7</b>	30 664 38
	450 mm	IR	pnP	connector	<b>QS18VP6DQ8</b>	30 664 60
	450 mm	IR	pnP	cable	<b>QS18VP6DB</b>	30 616 66
	450 mm	IR	pnP	connector	<b>QS18VP6DBQ7</b>	30 664 44
	450 mm	IR	pnP	connector	<b>QS18VP6DBQ8</b>	30 664 66
	100 mm	IR	pnP	cable	<b>QS18VP6W</b>	30 616 60
	100 mm	IR	pnP	connector	<b>QS18VP6WQ7</b>	30 664 42
	100 mm	IR	pnP	connector	<b>QS18VP6WQ8</b>	30 664 64
	Convergent***	16 mm	red	pnP	cable	<b>QS18VP6CV15</b>
16 mm		red	pnP	connector	<b>QS18VP6CV15Q7</b>	30 664 34
16 mm		red	pnP	connector	<b>QS18VP6CV15Q8</b>	30 664 56
43 mm		red	pnP	cable	<b>QS18VP6CV45</b>	30 616 48
43 mm		red	pnP	connector	<b>QS18VP6CV45Q7</b>	30 664 36
43 mm		red	pnP	connector	<b>QS18VP6CV45Q8</b>	30 664 58
Opposed	20 m	IR	(emitter)	cable	<b>QS186E</b>	30 616 18
	20 m	IR	(emitter)	connector	<b>QS186EQ7</b>	30 664 25
	20 m	IR	(emitter)	connector	<b>QS186EQ8</b>	30 664 47
	20 m	—	pnP	cable	<b>QS18VP6R</b>	30 616 24
	20 m	—	pnP	connector	<b>QS18VP6RQ7</b>	30 664 28
	20 m	—	pnP	connector	<b>QS18VP6RQ8</b>	30 664 50
	3 m	IR	(emitter)	cable	<b>QS186EB</b>	30 616 75
	3 m	IR	(emitter)	connector	<b>QS186EBQ7</b>	30 664 26
	3 m	IR	(emitter)	connector	<b>QS186EBQ8</b>	30 664 48
	3 m	—	pnP	cable	<b>QS18VP6RB</b>	30 616 72
	3 m	—	pnP	connector	<b>QS18VP6RBQ7</b>	30 664 40
	3 m	—	pnP	connector	<b>QS18VP6RBQ8</b>	30 664 62



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.