



## QS18 Series Fibre-optics and Adjustable Background Suppression

### Wave length

Red (plastic fibre-optics & AF) 660 nm  
IR (infrared) (glass fibre-optics) 940 nm

### Adjustment

potentiometer (fibre-optic)  
cut-off distance adjustment screw  
(adjustable field)

### 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 714 Hz (adjustable field)  
833 Hz (fibre-optic)

### Sensing hysteresis (...AF)

< 2 mm at 100 mm cut-off  
< 0,5 mm at 50 mm cut-off  
< 0,1 mm at 20 mm cut-off

### Material

Housing polycarbonate/ABS  
Protection class IP67  
(IEC 60529/EN 60529)  
Temperature range

0...+55 °C (adjustable field)  
-20...+70 °C (fibre-optic)

### Cable

Connector\* 2 m, PVC, 4 x 0,5 mm<sup>2</sup>  
*pico-style* ( $\varnothing 8$  mm) (...Q, ...Q7)  
*euro-style* (M12 x 1) (...Q5, ...Q8)

### Indicator LED's

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

### Accessories

#### Brackets

SMBQS18AF	30 674 67	mounting bracket for ...AF
SMB312S	37 092 00	side mounting bracket (except ...AF)

#### Connectors

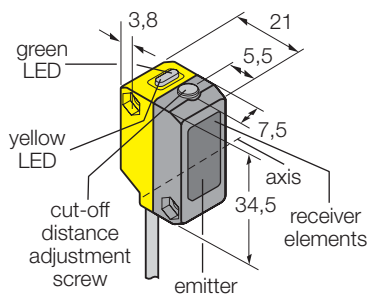
KP4-2/S90	80 072 90	<i>pico-style</i> , straight
WKP4-2/S90	80 073 26	<i>pico-style</i> , right-angled
WAK4-2/P00	80 070 46	<i>euro-style</i> , straight
WWAK4-2/P00	80 071 48	<i>euro-style</i> , right-angled

\*For integrated *pico-style* connector (...Q7) and integrated *euro-style* connector (...Q8).

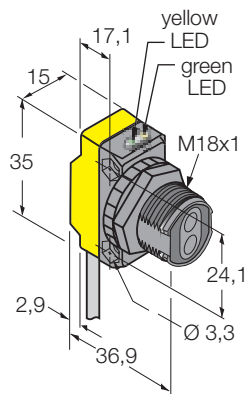
### Dimensions [mm]

#### ● Cable versions

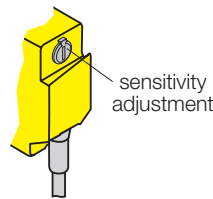
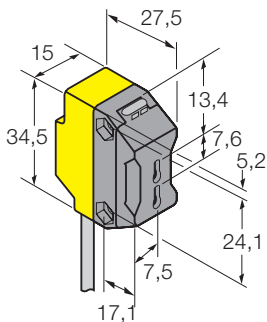
##### type AF



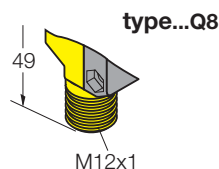
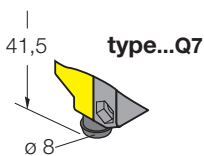
##### type F



##### type FP

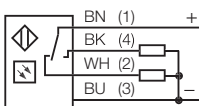


#### ● Connector versions

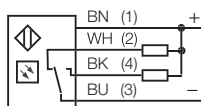


### Wiring

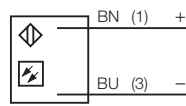
pnp complementary



nnp complementary



emitter

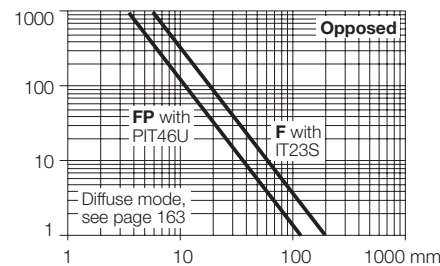


# QS18 Series

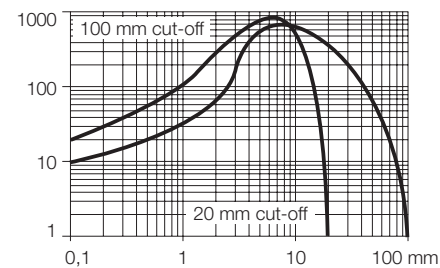
## Fibre-optics and Adjustable Background Suppression

Excess gain curve:  
Excess gain in relation to the distance

### Fibre-optic



### Adjustable field\*\*



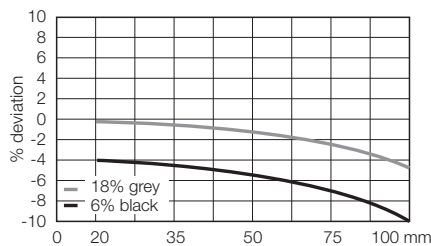
	Max. range [mm]/ Fibre type	Light source	Output function*	Connection	Type	Ident number
	plastic	red	pnp	cable	<b>QS18VP6FP</b>	30 662 24
	plastic	red	pnp	connector	<b>QS18VP6FPQ</b>	30 662 25
	plastic	red	pnp	connector	<b>QS18VP6FPQ7</b>	30 664 46
	plastic	red	pnp	connector	<b>QS18VP6FPQ8</b>	30 664 68
	glass	IR	pnp	cable	<b>QS18VP6F</b>	30 027 96
	glass	IR	pnp	connector	<b>QS18VP6FQ</b>	30 027 97
	20...100	red	pnp	cable	<b>QS18VP6AF100</b>	30 655 02
	20...100	red	pnp	connector	<b>QS18VP6AF100Q</b>	30 655 03
	20...100	red	pnp	connector	<b>QS18VP6AF100Q5</b>	30 683 26

\* npn versions available on request.

\*\* QS18AF models are not available with integral *pico-style* (...Q7) connector or with integral *euro-style* (...Q8) connector.

### Interpretation of the cut-off deviation curves

The deviation in % is plotted as the nominal distance variation compared to a dark object (6 % reflectance) and a grey object (18 % reflectance), against a white card background (90 % reflectance).



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.