



QS12 series dc operation

Wave length

Red
660 nm
680 nm (...LP..)

Adjustment

sensitivity
(push button incremental setting)

Supply

Supply voltage 10...30 V dc
Ripple V_{pp} $\leq 10\%$
Delay upon power up 500 ms
No load current ≤ 25 mA

Protection

reverse polarity
short-circuit
transient voltages

Output

Complementary light and dark operate
Continuous load current ≤ 150 mA
Switching frequency ≤ 330 Hz
 ≤ 83 Hz (opposed)

Material

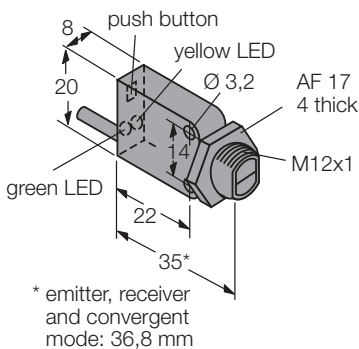
Housing ABS, polycarbonate, black
Protection class IP67
(IEC 60529/EN 60529)
Temperature range $-20...+55$ °C
Cable 2 m, PVC, 4 x 0,5 mm²
Connector *picocon* ($\varnothing 8$ mm)

Indicator LED's

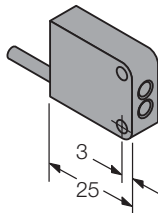
Green supply voltage
Yellow light sensed
Green flashing (rapidly 5 x) max. gain
Single green flash click registered, gain reduced by one increment (total of 12)
Yellow/green alternating minimum gain

Dimensions [mm]

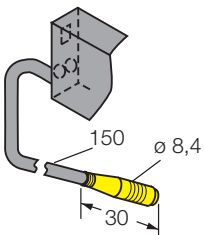
● Cable



QS12...DBZ...,
QS12...W...

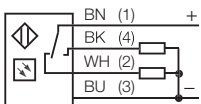


● Connector

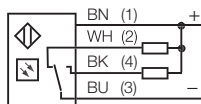


Wiring

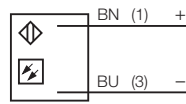
pnp



nnp



emitter



Accessories

Bracket

SMBQS12S 30 596 07 right-angled bracket,
side mounting, stainless steel
SMBQS12PD 30 596 06 right-angled bracket,
nose mounting, stainless steel

Connectors

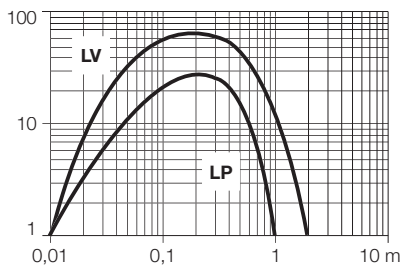
KP4-2/S90 80 072 90 straight type, PUR
KP4-2/P00 80 072 89 straight type, PVC

QS12 series

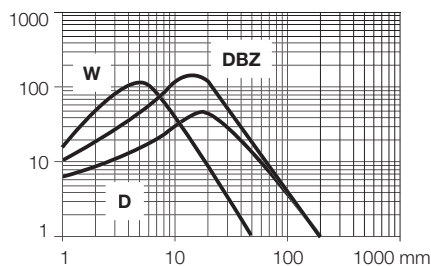
dc operation

Excess gain curve:
Excess gain in relation to the distance

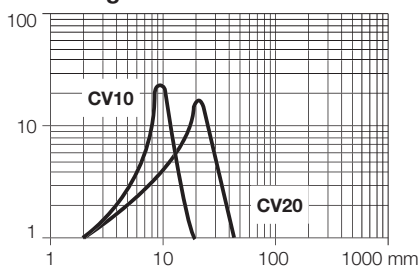
— Retro-reflective



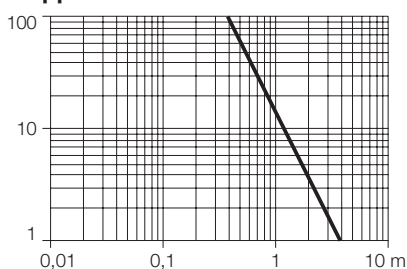
— Diffuse



— Convergent**



— Opposed



	Max. range	Light source	Output function	Connection	Type	Ident number	
Retro-reflective	2 m	red	pnp	cable	QS12VP6LV	30 586 41	
	2 m	red	pnp	connector	QS12VP6LVQ	30 586 42	
	2 m	red	nnp	cable	QS12VN6LV	30 586 38	
	2 m	red	nnp	connector	QS12VN6LVQ	30 586 39	
	1 m	red	pnp	cable	QS12VP6LP	30 586 35	
	1 m	red	pnp	connector	QS12VP6LPQ	30 586 36	
	1 m	red	nnp	cable	QS12VN6LP	30 586 32	
	1 m	red	nnp	connector	QS12VN6LPQ	30 586 33	
	with polarising filter (680 nm)						
	Diffuse	200 mm	red	pnp	cable	QS12VP6D	30 586 59
200 mm		red	pnp	connector	QS12VP6DQ	30 586 60	
50 mm		red	pnp	cable	QS12VP6W	30 586 65	
50 mm		red	pnp	connector	QS12VP6WQ	30 586 66	
200 mm		red	nnp	cable	QS12VN6D	30 586 56	
200 mm		red	nnp	connector	QS12VN6DQ	30 586 57	
50 mm		red	nnp	cable	QS12VN6W	30 586 62	
50 mm		red	nnp	connector	QS12VN6WQ	30 586 63	
200 mm		red	pnp	cable	QS12VP6DBZ	30 586 71	
200 mm		red	pnp	connector	QS12VP6DBZQ	30 586 72	
200 mm		red	nnp	cable	QS12VN6DBZ	30 586 68	
200 mm		red	nnp	connector	QS12VN6DBZQ	30 586 69	
Convergent**	10 mm	red	pnp	cable	QS12VP6CV10	30 586 47	
	10 mm	red	pnp	connector	QS12VP6CV10Q	30 586 48	
	20 mm	red	pnp	cable	QS12VP6CV20	30 586 53	
	20 mm	red	pnp	connector	QS12VP6CV20Q	30 586 54	
	10 mm	red	nnp	cable	QS12VN6CV10	30 586 44	
	10 mm	red	nnp	connector	QS12VN6CV10Q	30 586 45	
	20 mm	red	nnp	cable	QS12VN6CV20	30 586 50	
	20 mm	red	nnp	connector	QS12VN6CV20Q	30 586 51	
Opposed	4 m	red	(emitter) pnp	cable cable	QS126E QS12VP6R	30 586 23 30 586 29	
	4 m	red	nnp	cable	QS12VN6R	30 586 26	
			(emitter) pnp	connector	QS126EQ	30 586 24	
			pnp	connector	QS12VP6RQ	30 586 30	
			nnp	connector	QS12VN6RQ	30 586 27	

* spot size at focus (convergent mode): QS12...CV10: ø 1 mm, QS12...CV20: ø 1,75 mm.



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.