

		QM	R	8	/	0	P	-	0	A	VE	80
QM	Miniaturized cubic photoelectric sensor 12.8x21x31.2 mm											
R	RED emission											
I	Infrared emission											
B	Direct diffuse with sens. adj. 100 mm (R)											
7	Direct diffuse with sens. adj. 400 mm (R - IR)											
8	Direct diffuse with sens. adj. 1,000 mm (R)											
9	Direct diffuse with sens. adj. 1,500 mm (IR)											
N	5 m polarized with sensisitive adjustment											
C	7 m reflective with sensisitive adjustment											
G	0.05...1.5 m (R) or 0.05...1.0 m (IR) for transparent objects with adjustment											
L	0.4...4 m for transparent objects with adjustment											
HD	20 m (R) or 30 m (IR) emitter + receiver kit with adjustment											
H	Emitter with adjustment ⁽¹⁾											
D	20 m (R) or 30 m (IR) receiver without adjustment ⁽¹⁾											
S	30...200 mm (R) or 30...400 mm (IR) background suppression											
0	Emitter without check, LO/DO selectable											
0	Emitter											
P	PNP output											
N	NPN output											
0	Plastic housing											
A	2 m cable exit											
F	M8 4 pin plug cable exit											
	Standard model											
VE	M12 pig-tail output ⁽¹⁾											
VF	M8 3 pin pig tail output ⁽¹⁾											
VG	M8 4 pin pig tail output ⁽¹⁾											
80	20 cm cable lenght (pig-tail models) ⁽¹⁾											
	Standard model											

⁽¹⁾ These products may have limitations in terms of delivery or on the quantities to be ordered



Products

QM
cubic

available models

function	distance	emission	adjustment	output type	housing	Models	
						PNP + NO/NC	NPN + NO/NC
Direct diffuse	100 mm	Red	yes	cable	plastic	QMRB/0P-0A	QMRB/0N-0A
				M8 connector		QMRB/0P-0F	QMRB/0N-0F
	400 mm	Red		cable		QMR7/0P-0A	QMR7/0N-0A
				M8 connector		QMR7/0P-0F	QMR7/0N-0F
		IR		cable		QMI7/0P-0A	QMI7/0N-0A
				M8 connector		QMI7/0P-0F	QMI7/0N-0F
	1,000 mm	Red		cable		QMR8/0P-0A	QMR8/0N-0A
				M8 connector		QMR8/0P-0F	QMR8/0N-0F
	1,500 mm	IR		cable		QMI9/0P-0A	QMI9/0N-0A
				M8 connector		QMI9/0P-0F	QMI9/0N-0F
Polarized	5 m	Red		cable		QMRN/0P-0A	QMRN/0N-0A
				M8 connector		QMRN/0P-0F	QMRN/0N-0F
				cable		QMIC/0P-0A	QMIC/0N-0A
Retroreflection	7 m	IR		M8 connector		QMIC/0P-0F	QMIC/0N-0F
For transparent objects	0.05 - 1.5 m	Red		cable		QMRG/0P-0A	QMRG/0N-0A
				M8 connector		QMRG/0P-0F	QMRG/0N-0F
	0.05 - 1.0 m	IR		cable		QMIG/0P-0A	QMIG/0N-0A
				M8 connector		QMIG/0P-0F	QMIG/0N-0F
	0.4 - 4 m	Red		cable		QMRL/0P-0A	QMRL/0N-0A
				M8 connector		QMRL/0P-0F	QMRL/0N-0F
Emitter	20 m	Red	cable	QMRH/00-0A			
M8 connector			QMRH/00-0F				
Receiver			cable	QMRD/0P-0A	QMRD/0N-0A		
			M8 connector	QMRD/0P-0F	QMRD/0N-0F		
Emitter + Receiver			cable	QMRHD/0P-0A	QMRHD/0N-0A		
			M8 connector	QMRHD/0P-0F	QMRHD/0N-0F		
Emitter			QMIH/00-0A				
			QMIH/00-0F				
Receiver	30 m	IR	cable	QMID/0P-0A	QMID/0N-0A		
			M8 connector	QMID/0P-0F	QMID/0N-0F		
Emitter + Receiver			QMIHD/0P-0A	QMIHD/0N-0A			
			QMIHD/0P-0F	QMIHD/0N-0F			
Background suppression	30 - 200 mm	Red	yes	cable	QMRS/0P-0A	QMRS/0N-0A	
				M8 connector	QMRS/0P-0F	QMRS/0N-0F	
	30 - 400 mm	IR		cable	QMIS/0P-0A	QMIS/0N-0A	
				M8 connector	QMIS/0P-0F	QMIS/0N-0F	

technical specifications (direct diffuse models)

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

			
models	QMRB/0*-0*	QMR7/0*-0*	QMR8/0*-0*
			
nominal sensing distance S_n	100 mm ⁽¹⁾	400 mm ⁽¹⁾	1,000 mm ⁽²⁾
minimum working distance	-		
sensitivity adjustment	yes		
emission	red (630 nm)		
differential travel	≤ 10%		
repeat accuracy	5%		
light-dark selection	yes		
U _e operating voltage	10 ... 30 Vdc		
ripple	≤ 10%		
no-load supply current	≤ 10 µA		
load current	≤ 100 mA		
supply current	≤ 30 mA		
output voltage drop U _d	2 V max @ 100 mA		
maximum load current	≤ 100 mA		
output type	PNP or NPN NO or NC		
switching frequency f	1 kHz	2 kHz	1 kHz
time delay before availability	≤ 100 ms		
supply electrical protections	polarity reversal, over voltage pulses		
output electrical protection	short circuit (auto reset) , over voltage pulses		
operative temperature range	- 25 ...+ 70° C (without freeze)		
thermal drift	- 30 ...+ 80° C		
LED indicators	yellow (LO/DO output state) green (Excess gain)		
interference external light	10.000 Lux (sunlight) 3.000 Lux (incandescence lamp)		
protection degree	IP67 (EN60529) ⁽³⁾		
housing material	PA66		
optic material	PMMA		
tightening torque	1 Nm ⁽⁴⁾		
weight (approx)	52 g cable, 10 g M8 plug		

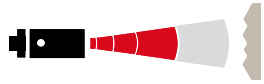
⁽¹⁾ White target *Kodak* 90% 200 x 200 mm ⁽²⁾ White target *Kodak* 90% 400 x 400 mm

⁽³⁾ Protection guaranteed only with plug cable well mounted

⁽⁴⁾ Screws, nuts and mounting brackets are not included with the sensor (accessories)

technical specifications (polarized models)

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

	
models	QMRN/0*-0*
	
nominal sensing distance Sn	5 m ⁽¹⁾
minimum working distance	0.02 m @ RL 110
sensitivity adjustment	yes
emission	red (630 nm)
differential travel	≤ 10%
repeat accuracy	5%
light-dark selection	yes
Ue operating voltage	10 ... 30 Vdc
ripple	≤ 10%
no-load supply current	≤ 30 mA
load current	≤ 100 mA
leakage current	≤ 10 µA
output voltage drop Ud	2 V max @ 100 mA
maximum load current	≤ 100 mA
output type	PNP or NPN NO or NC
switching frequency f	2 kHz
time delay before availability	≤ 100 ms
supply electrical protections	polarity reversal, over voltage pulses
output electrical protection	short circuit (auto reset) , over voltage pulses
operative temperature range	- 25 ...+ 70° C (without freeze)
thermal drift	- 30 ...+ 80° C
LED indicators	yellow (output state LO/DO) green (Excess gain)
interference external light	10,000 lux sunlight 3,000 lux incandescent lamp
protection degree	IP67 (EN60529) ⁽⁵⁾
housing material	PA66
optic material	PMMA
tightening torque	1 Nm ⁽⁶⁾
weight (approx)	52 g cable, 10 g M8 plug

⁽³⁾ With RL 110 reflector EG = 2

⁽⁵⁾ Protection guaranteed only with plug cable well mounted

⁽⁶⁾ Screws, nuts and mounting brackets are not included with the sensor (accessories)

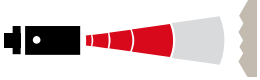


Products

QM
cubic

technical specifications (retroreflection models)

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

	
models	QMIC/0*-0*
	
nominal sensing distance S_n	7 m ⁽¹⁾
minimum working distance	0.02 m @ RL 110
sensitivity adjustment	yes
emission	infrared (850 nm)
differential travel	$\leq 10\%$
repeat accuracy	5%
light-dark selection	yes
U_e operating voltage	10 ... 30 Vdc
ripple	$\leq 10\%$
no-load supply current	≤ 45 mA
load current	≤ 100 mA
leakage current	≤ 10 μ A
output voltage drop U_d	2 V max @ 100 mA
maximum load current	≤ 100 mA
output type	PNP or NPN NO or NC
switching frequency f	2 kHz
time delay before availability	≤ 100 ms
supply electrical protections	polarity reversal, over voltage pulses
output electrical protection	short circuit (auto reset) , over voltage pulses
operative temperature range	- 25 ...+ 70° C (without freeze)
thermal drift	- 30 ...+ 80° C
LED indicators	yellow (output state LO/DO) green (Excess gain)
interference external light	10,000 lux sunlight 3,000 lux incandescent lamp
protection degree	IP67 (EN60529) ⁽⁵⁾
housing material	PA66
optic material	PMMA
tightening torque	1 Nm ⁽⁶⁾
weight (approx)	52 g cable, 10 g M8 plug

⁽⁵⁾ Protection guaranteed only with plug cable well mounted

⁽⁶⁾ Screws, nuts and mounting brackets are not included with the sensor (accessories)

technical specifications (through beam models)

according to IEC EN 60947-5-2 and IEC EN 60947-5-7

		
models	QMRH/0*-0*	QMRD/0*-0*
		
nominal sensing distance S_n	20 m ⁽¹⁾	
minimum working distance	-	
sensitivity adjustment	yes	-
emission	red (630 nm)	
differential travel	$\leq 10\%$	
repeat accuracy	5%	
light-dark selection	yes	
U_e operating voltage	10 ... 30 Vdc	
ripple	$\leq 10\%$	
no-load supply current	≤ 30 mA	
load current		≤ 100 mA
leakage current		≤ 10 μ A
output voltage drop U_d		2 V max @ 100 mA
maximum load current		≤ 100 mA
output type		PNP or NPN NO or NC
switching frequency f	2 kHz	
time delay before availability	≤ 100 ms	
supply electrical protections		polarity reversal, over voltage pulses
output electrical protection		short circuit (auto reset) , over voltage pulses
operative temperature range	- 25 ...+ 70° C (without freeze)	
thermal drift	- 30 ...+ 80° C	
LED indicators	yellow (output state LO/DO) green (Excess gain)	
interference external light	10,000 lux sunlight 3,000 lux incandescent lamp	
protection degree	IP67 (EN60529) ⁽⁵⁾	
housing material	PA66	
optic material	PMMA	
tightening torque	1 Nm ⁽⁶⁾	
weight (approx)	52 g cable, 10 g M8 plug	

⁽⁵⁾ Protection guaranteed only with plug cable well mounted

⁽⁶⁾ Screws, nuts and mounting brackets are not included with the sensor (accessories)