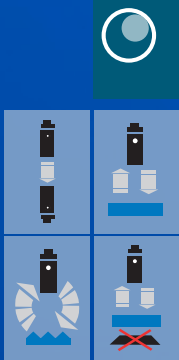




QE series

Plastic cubic miniaturized photoelectric sensors ECO



Plastic cubic miniaturized

features

- Available models: Direct Diffuse, Background Suppression, Polarized Through-beam
- Switching Frequency 1Khz
- Complete protection against electrical damages
- Adjustment by trimmer on the back
- Voltage Supply: 10-30 VDC
- Fixing holes 2 x M3
- Complementary outputs (NO+NC)



code description

	QE	R	N	/	B	P	-	0	F
series	QE	ECO plastic cubic miniaturized photoelectric sensors							
emission	I	Infrared emission							
	R	Red emission							
model	8	Direct reflection 1000 mm							
	S	Background suppression							
	N	Polarized							
	H	Emitter							
output	D	Receiver							
	0	Emitter							
logic output	B	Complementary outputs (NO + NC)							
	N	NPN logic output							
housing	P	PNP logic output							
	0	Plastic housing							
connection	A	Cable (length 2m)							
	F	Plug M8 4 poles							



Plastic cubic
miniaturized

available models

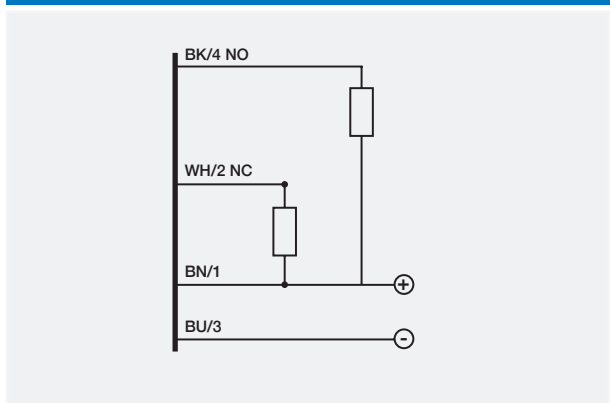
model	distance	emission	adjustment	housing	cable		plug M8	
					PNP (NO+NC)	NPN (NO+NC)	PNP (NO+NC)	NPN (NO+NC)
diffuse reflection	1 m	red (625 nm)	●	plastic	QER8/BP-0A	QER8/BN-0A	QER8/BP-0F	QER8/BN-0F
background suppression	200 mm				QERS/BP-0A	QERS/BN-0A	QERS/BP-0F	QERS/BN-0F
polarized	5 m				QERN/BP-0A	QERN/BN-0A	QERN/BP-0F	QERN/BN-0F
emitter	15 m	infrared (880 nm)	-		QEIH/00-0A		QEIH/00-0F	
receiver					QEID/BP-0A	QEID/BN-0A	QEID/BP-0F	QEID/BN-0F

technical specification

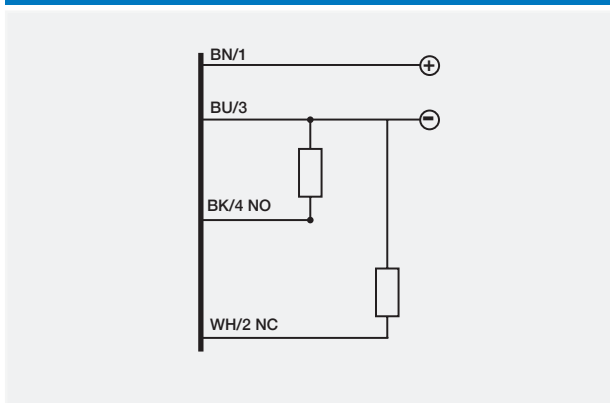
	diffuse reflection	background suppression	polarized	emitter	receiver
	QER8/B*-0*	QERS/B*-0*	QERN/B*-0*	QEIH/00-0*	QEID/B*-0*
nominal sensing distance (Sn)	1 m (white 90%)	200 mm	5 m @ RL110	15 m	
minimum sensing distance	5 cm (black 6%)	30 mm	0,1 m @ RL110	0,1 m	
emission	Red (625 nm)			Infrared (880 nm)	-
supply voltage	10...30 Vdc				
ripple	≤ 10%				
no-load supply current	≤ 25 mA			≤ 20 mA	≤ 25 mA
load current	≤ 100 mA			-	≤ 100 mA
leakage current	100 µA			-	100 µA
output voltage drop	2 Vdc @ 100mA			-	2 Vdc @ 100mA
output type	PNP or NPN (NO + NC)			-	PNP or NPN (NO + NC)
switching frequency	1 kHz			1 KHz	
power on delay	≤ 200 ms				
operating temperature range	-25°C...+55°C (without freeze)				
power supply protection	polarity reversal, transient				
output electrical protection	short circuit (auto reset)			-	short circuit (auto reset)
temperature drift	10% Sr	10% Sr	10% Sr		
protection degree	IP67 (EN60529)				
EMC	conformity with the EMC directive according to EN 60947-5-2				
external light interference	≤ 10.000 lux (incandescent lamp)			-	≤ 10.000 lux (incandescent lamp)
	yellow (output energized) green (EG>1,5/PowerON)				
housing material	ABS				
optical material	PMMA				
tightening torque	1 Nm				
weight (approximate)	≤ 50gr (cable); ≤ 20gr (plug)				

electrical diagrams of the connections

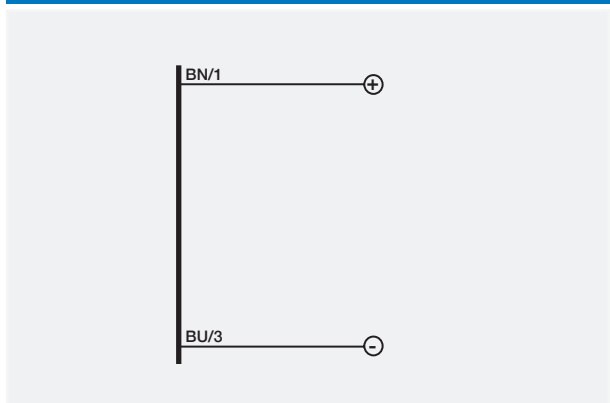
NPN output



PNP output



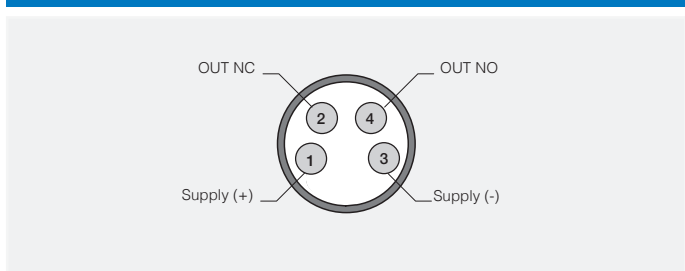
emitter



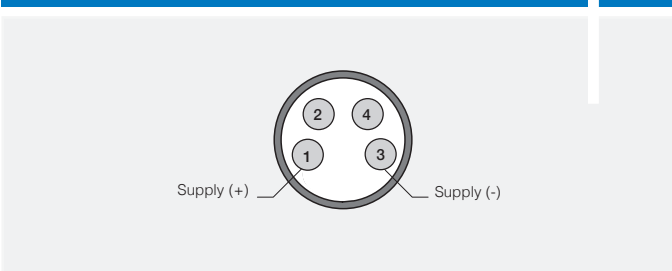
- BN** brown
- BU** blue
- BK** black
- WH** white
- PK** pink
- GY** gray

plug

QE**/B*



QEIH/00

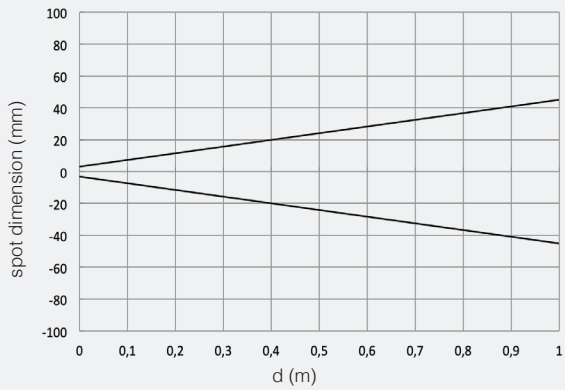




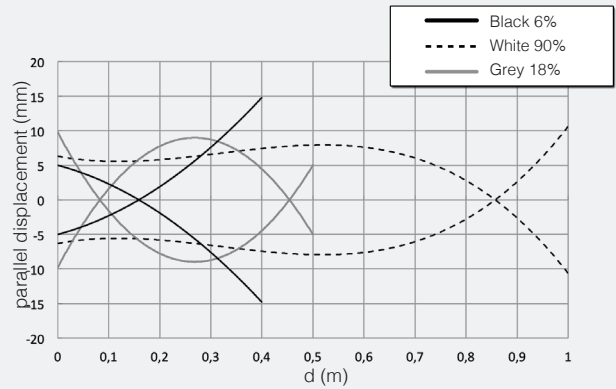
response diagrams

direct reflection models

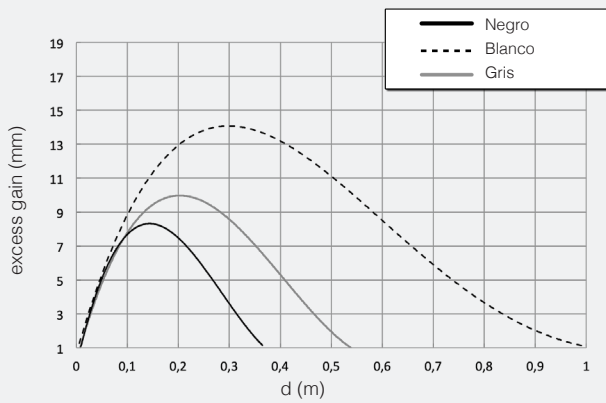
QER8 spot dimension



QER8 parallel displacement



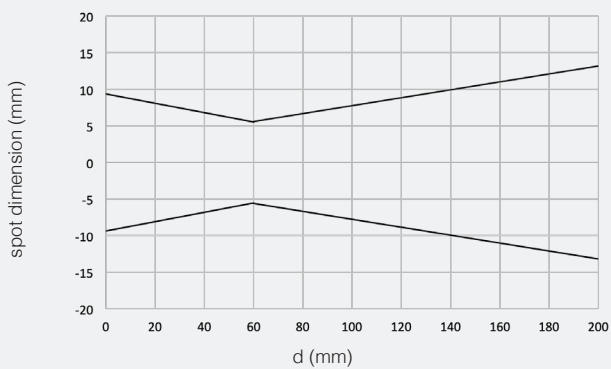
QER8 excess gain



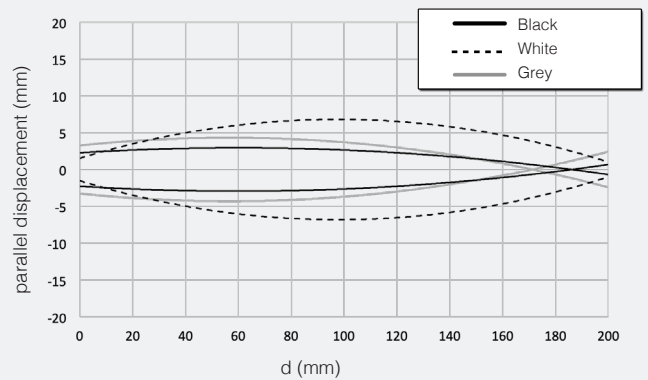
response diagrams

background suppression models

QERS spot dimension

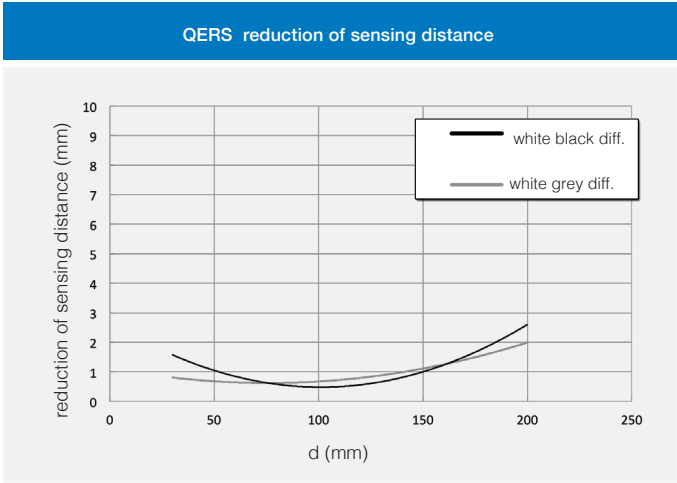


QERS parallel displacement



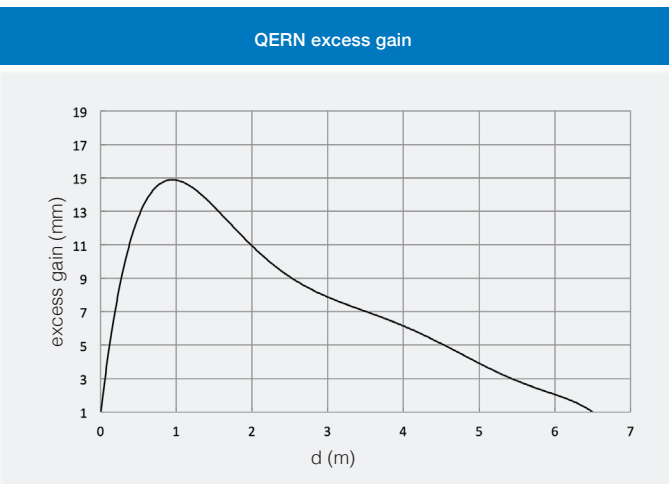
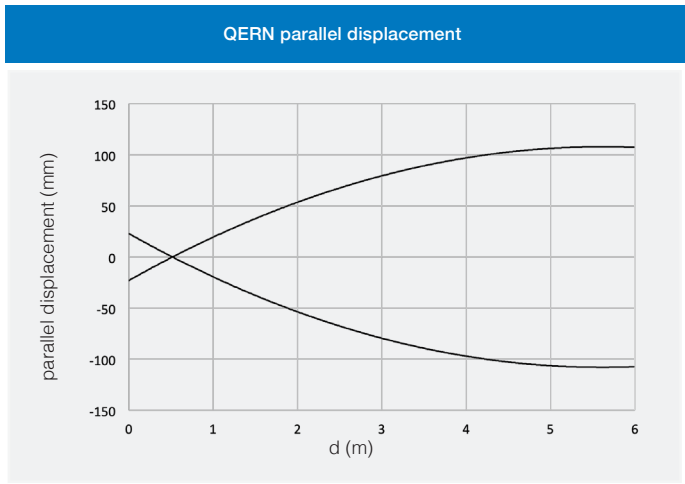
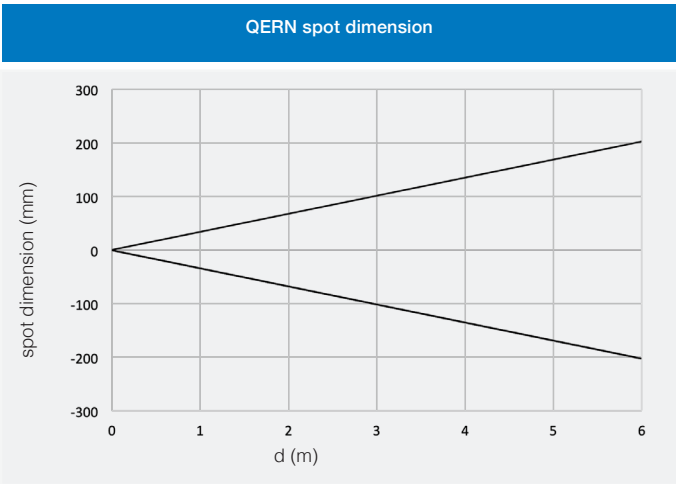
response diagrams

background suppression models



response diagrams

polarized models (RL110 reflector)



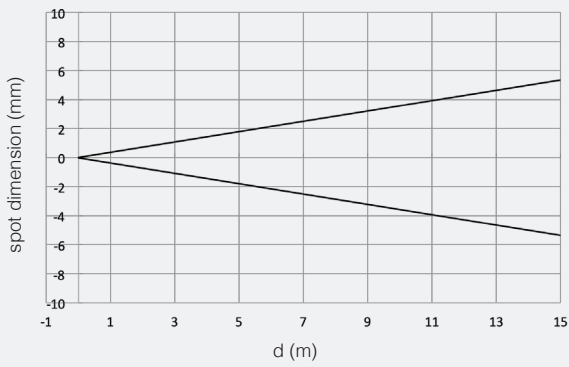


response diagrams

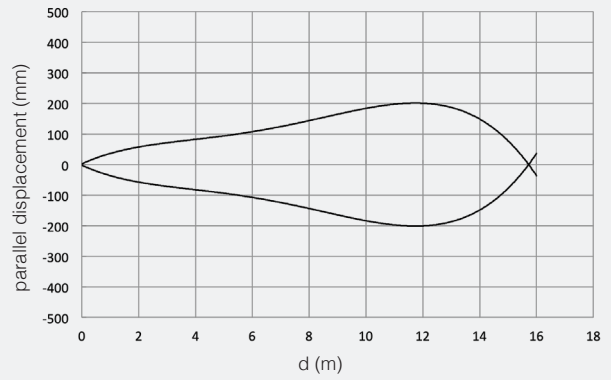
through-beam models

Plastic cubic
miniaturized

QEI* spot dimension

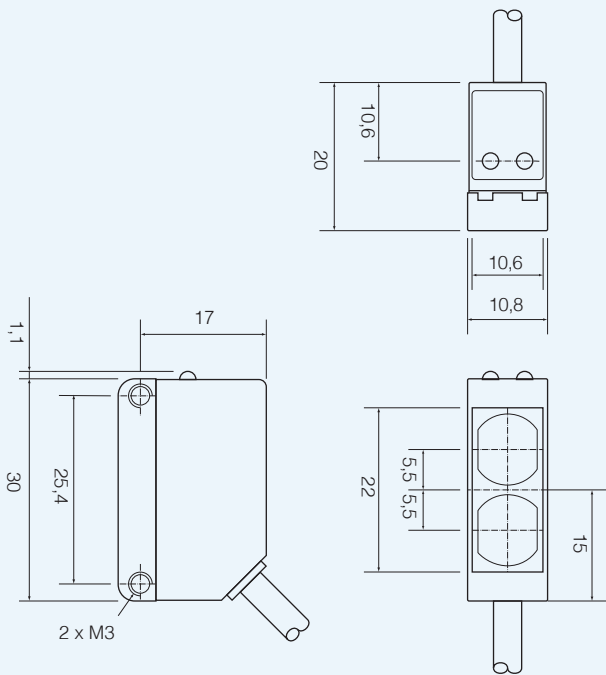


QEI* parallel displacement



dimensions (mm)

cable models



plug models

