

Q2XABFF50-Q

Photoelectric Sensor – Diffuse-Mode Sensor with Fixed Background Suppression

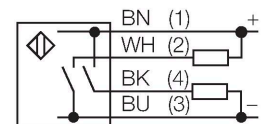
Technical data

Type	Q2XABFF50-Q
ID	3814146
Optical data	
Function	Diffuse mode sensor with fixed-field background suppression
Light type	Red
Wavelength	645 nm
Range	0...50 mm
Electrical data	
Operating voltage U_B	10...30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operating current I_o	≤ 16 mA
Reverse polarity protection	yes
Output function	PNP/NPN
Readiness delay	≤ 120 ms
Response time typical	< 0.85 ms
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Q2X
Dimensions	14 x 31 mm
Housing material	Plastic, PC ABS
Lens	acrylic, Acrylic
Electrical connection	Cable with connector, M8 × 1, PVC
Number of cores	4
Ambient temperature	-25...+50 °C
Relative humidity	0...95 %
Protection class	IP67
Special features	Miniature Crosstalk protection
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED, yellow, flashing
Tests/approvals	
Approvals	CE, cURus

Features

- Miniature sensor with slim housing for confined spaces
- Protection class IP67
- Connection via 150-mm PVC cable with M8 × 1 male connector, 4-pin
- LED, all-round visible
- Adjusted via potentiometer
- Switching output, bipolar, light operation

Wiring diagram



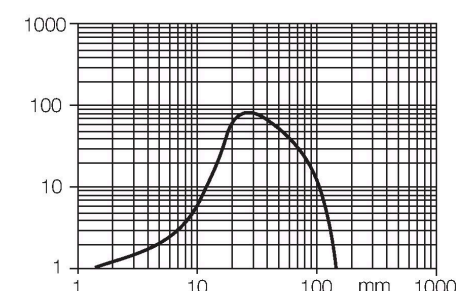
Functional principle

Diffuse-mode sensors with background suppression operate with a single emitter and several receiver elements. The position of the object to be detected and the optical structure of the sensor dictate which receiver element gets the most light. The sensor electronics determine whether the reflecting object is within or outside the detection range. These sensors come with a fixed cut-off point.

Excess gain curve

Excess gain in relation to range

Excess Gain Curve



Accessories

SMBQ2XB	3812494	SMBQ2XA	3812493
Mounting bracket, stainless steel, for Q2X design, L-shaped for wall mounting		Mounting bracket, stainless steel, for Q2X design, L-shaped for mounting on horizontal surfaces	