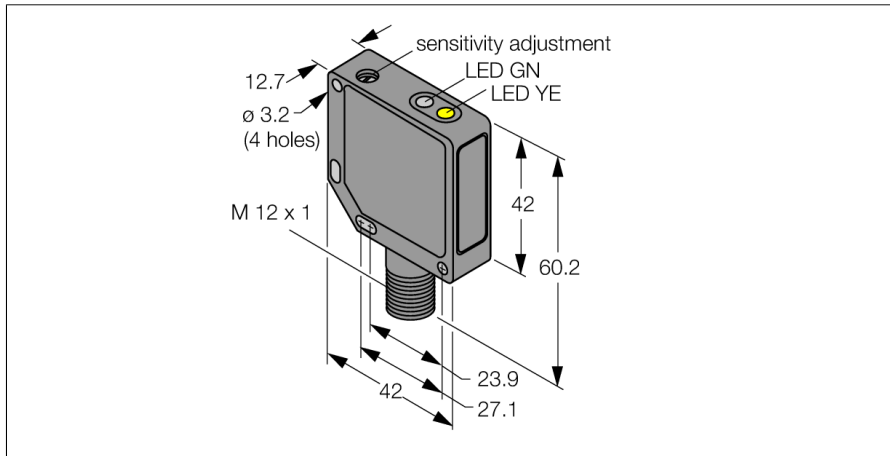
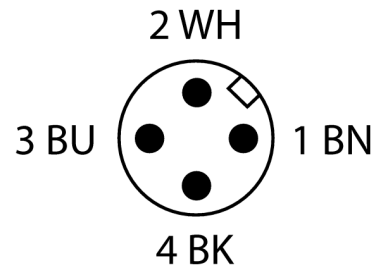
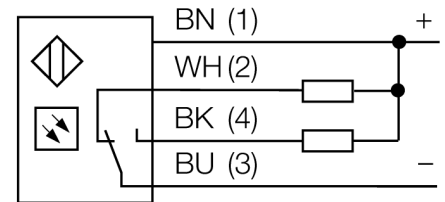


Photoelectric Sensor
diffuse mode sensor with fixed-field background suppression
QM42VN6AFV150Q



- Male M12 × 1, 4-pin
- Metal housing, ZN, black
- Protection class IP67
- Scanning width adjusted via potentiometer
- Operating voltage 10...30 VDC
- NPN switching output
- Light/dark operation

Wiring Diagram

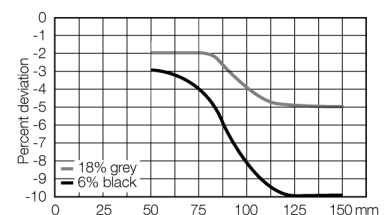


Functional principle

Diffuse mode sensors with background suppression operate with a single emitter and several receiver elements. The target position and the photoelectric structure of the sensor determine which of the receiving elements receives the most light. The sensor electronics determine whether the reflecting object is within or outside the measuring range. These sensors come with an adjustable cut-off point.

Deviation curve

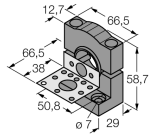
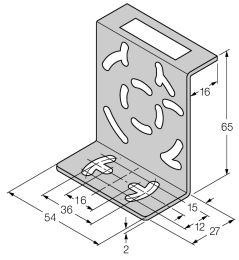
Sensing range deviation curve



Type designation	QM42VN6AFV150Q
Ident no.	3048696
Function	Proximity switch
Light type	Red
Wavelength	680 nm
Range	50...150 mm
Ambient temperature	-20...+55 °C
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _s
DC rated operational current	≤ 100 mA
No-load current I ₀	≤ 30 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, NPN
Switching frequency	≤ 500 Hz
Readiness delay	≤ 100 ms
Readiness delay	≤ 100 ms
Response time typical	< 1 ms
Overcurrent release	> 150 mA
Approvals	CE, cURus
Design	Rectangular, QM42
Dimensions	42 mm x 12.7 mm x 60.2 mm
Housing diameter	0 mm
Housing material	Metal, Die-cast zinc alloy, Black-finished
Lens	plastic, Acrylic
Electrical connection	Connectors, M12 × 1, PVC
Core cross-section	4 mm ²
Protection class	IP67
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED green Flashing
Excess gain indication	LED
Alarm display	LED yellow Flashing

Photoelectric Sensor
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Accessories

Type code	Ident no.	Description	Dimension drawing
SMB30SK	3052523	Mounting bracket, PBT black, with mounting plate, stainless steel, for types with 18 mm thread, QM42/QMT42	
SMB46S	3048748	Mounting bracket, stainless steel, for QS18, QS30, MI-NI-BEAM, QM42/QMT42	
SMB46L	3048747	Mounting bracket, stainless steel, for QS18, QS30, MI-NI-BEAM, QM42/QMT42	