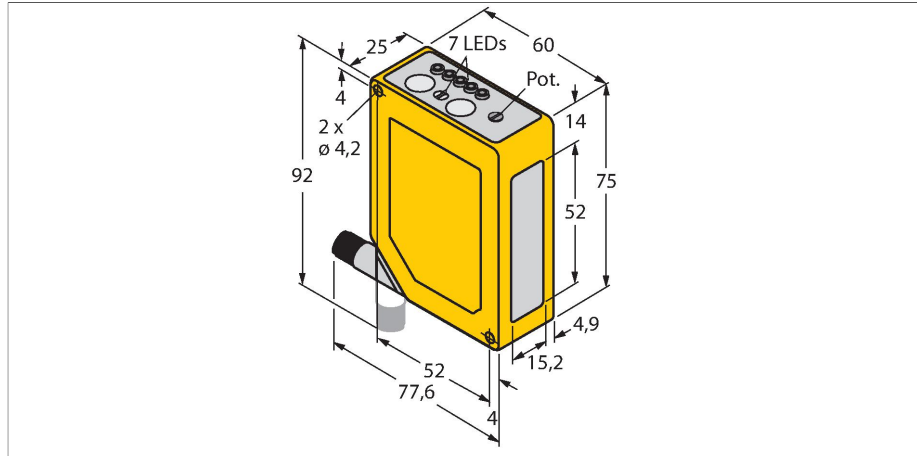


Q60BB6AF2000Q

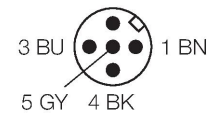
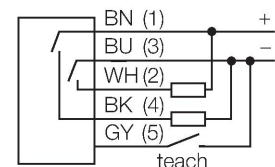
Photoelectric Sensor – Diffuse Mode Sensor with Adjustable Background Suppression



Features

- Male M12 × 1, 5-pole, rotatable by 90°
- Protection class IP67
- 5-segment LED display
- Signal indication
- Keylock
- Switch ON/OFF delay, adjustable between 8...16 ms
- Operating voltage: 10...30 VDC
- Switching output, bipolar
- Light or dark operation

Wiring diagram



Technical data

Type	Q60BB6AF2000Q
ID	3063001
Optical data	
Function	Proximity switch
Operating mode	Background suppression, adjustable
Light type	IR
Wavelength	880 nm
Range	200...2000 mm
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	< 10 % U _{ss}
No-load current	≤ 50 mA
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 250 Hz
Readiness delay	≤ 150 ms
Response time typical	< 2 ms
Setting option	Screw Adjustment Remote Teach
Mechanical data	
Design	Rectangular, Q60
Dimensions	60 x 25 x 75 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5

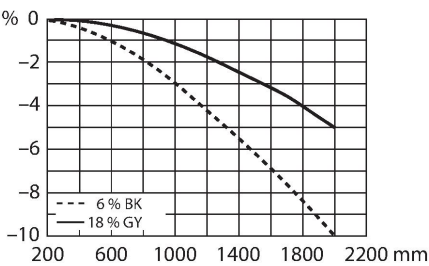
Functional principle

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. The sensors come with an adjustable or fixed cut-off point.

Deviation curve
Deviation of the cut-off point of a 18 % grey or 6 % black target relative to the cut-off point of a white target

Technical data

Ambient temperature	-20...+55 °C
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED
Excess gain indication	LED, green, flashing
Tests/approvals	
MTTF	64 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus



Accessories

SMBAMSQ60IP3073441

Technical drawing of the SMBAMSQ60IP protective housing. Dimensions include: 22, 92, 50, 89, 67, 136, 9, 32, 6.53, 18, 37, 2.6, 45, 52, 30, and M3 x 0.5 (8x).

Protective housing with safety glass panel, stainless steel, for Q60

SMBAMSQ60P3073133

Technical drawing of the SMBAMSQ60P backplane. Dimensions include: 60, 52, 2.6, 67, 122, 45, 23, 23, 47, 1/4-20 UNC, 32, 18, and M3 x 0.5 (4x).

Backplane, stainless steel, for Q60 series

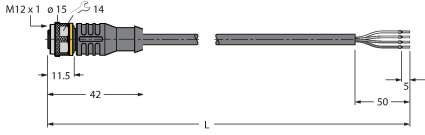
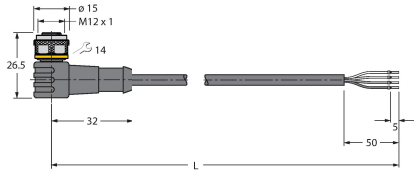
SMBQ603067592

Technical drawing of the SMBQ60 mounting bracket. Dimensions include: 53, 42, 3.9, R 66.7, 4.5, 24.1, 32.5, 20, 1.9, 3.9, and 4.5.

Mounting bracket, stainless steel, for Q60 series

Accessories

Dimension drawing	Type	ID	
Technical drawing of the WK4.5T-2/TEL connection cable. Dimensions include: 15, 14, 26.5, 32, 50, and L.	WK4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

Dimension drawing	Type	ID	
	RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com