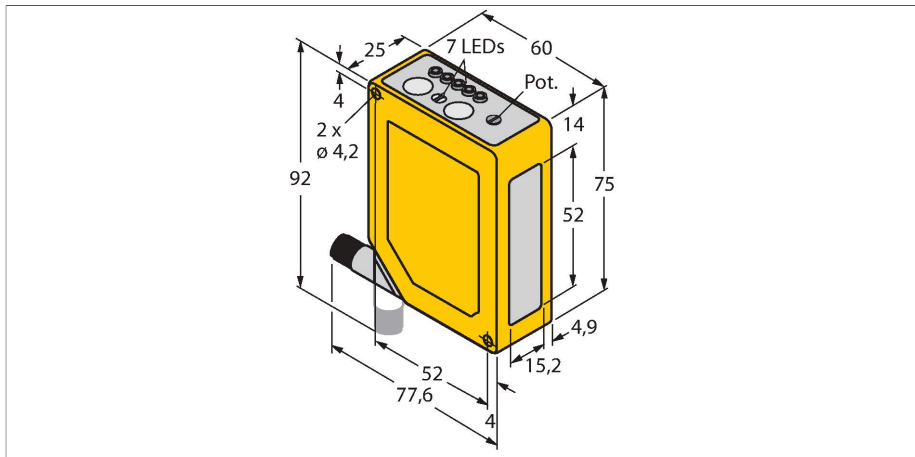


# Q60VR3LAF2000Q1

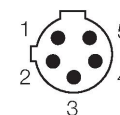
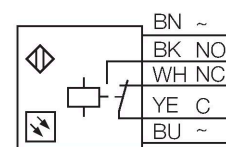
## Photoelectric Sensor – Laser Sensor, Diffuse Mode, with Adjustable Background Suppression



### Features

- Male 1/2", 4-pin, rotatable by 90°
- Protection class IP67
- 5-segment LED display
- Signal indication
- Keylock
- Switch ON/OFF delay, adjustable between 8...16 ms
- Operating voltage: 12...250 VDC or 24...250 VAC
- Relay output

### Wiring diagram



### Technical data

Type	Q60VR3LAF2000Q1
ID no.	3071745
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Background suppression, adjustable
Light type	Red
Wavelength	650 nm
Laser class	▲ 2
Range	200...2000 mm
<b>Electrical data</b>	
Operating voltage	12...250 VDC
Operating voltage	24...250 VAC
DC rated operational current	≤ 200 mA
No-load current	≤ 50 mA
Output function	Complementary contact, Relay output
Switching frequency	≤ 33 Hz
Readiness delay	≤ 1000 ms
Response time typical	< 15 ms
Setting option	Screw Adjustment
<b>Mechanical data</b>	
Design	Rectangular, Q60
Dimensions	60 x 25 x 75 mm
Housing material	Plastic, Thermoplastic material, Yellow
Lens	plastic, Acrylic
Electrical connection	Connectors, 1/2"
Number of cores	5

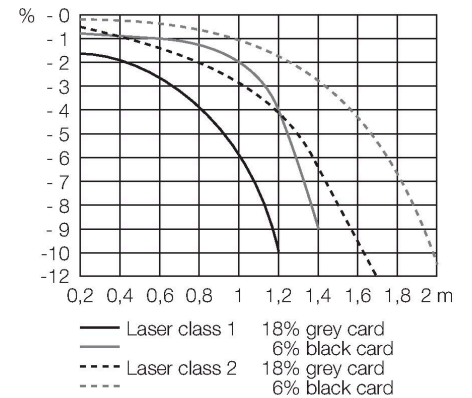
### Functional principle

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

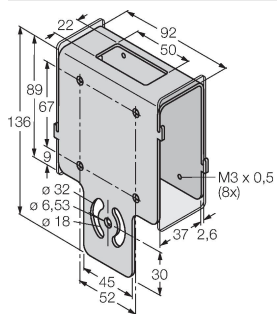
Ambient temperature	-10...+45 °C
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
Error indication	LED
Excess gain indication	LED, green, flashing
<b>Tests/approvals</b>	
MTTF	19 years acc. to SN 29500 (Ed. 99) 40 °C
Approvals	CE, cURus



## Accessories

SMBAMSQ60IP

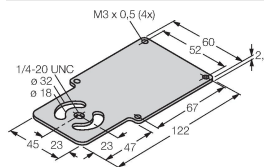
3073441



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

SMBAMSQ60P

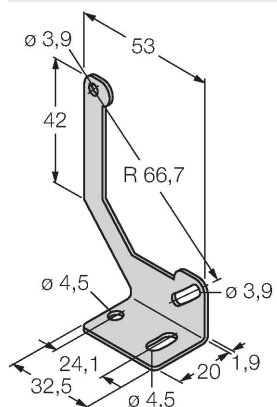
3073133



Backplane, stainless steel, for Q60 series

SMBQ60

3067592



Mounting bracket, stainless steel, for Q60 series

## Accessories

Dimension drawing	Type	ID no.	
	WKC4.5T-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 <a href="http://www.turck.com">www.turck.com</a>
	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 <a href="http://www.turck.com">www.turck.com</a>