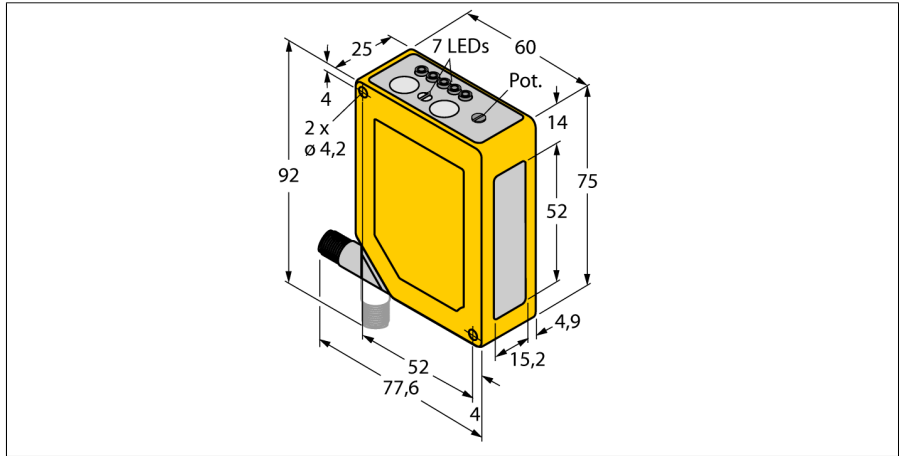
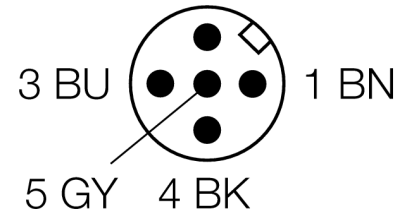
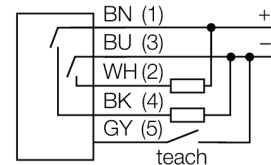


**Photoelectric sensor**  
**laser sensor, diffuse mode, with adjustable background suppression**  
**Q60BB6LAF2000Q**



- Male M12 x 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**



<b>Type code</b>	Q60BB6LAF2000Q
Ident no.	3071743
<b>Operating mode</b>	Diffuse mode laser sensor (time-of-fly) with adjustable background suppression
Light type	red
Wavelength	650 nm
Laser class	△ 2
Range	200...2000 mm
Ambient temperature	-10...+50 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	< 10 % U <sub>s</sub>
No-load current I <sub>0</sub>	≤ 50 mA
Reverse polarity protection	yes
Output function	NO contact, PNP/NPN
Switching frequency	≤ 250 Hz
Readiness delay	≤ 1000 ms
<b>Design</b>	rectangular, Q60
Dimensions	60 x 25 x 75 mm
Housing material	plastic, ABS, yellow
Lens	plastic, acrylic
Connection	male, M12 x 1
Protection class	IP67
MTTF	19 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED
Excess gain indication	LED green flashing

**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.

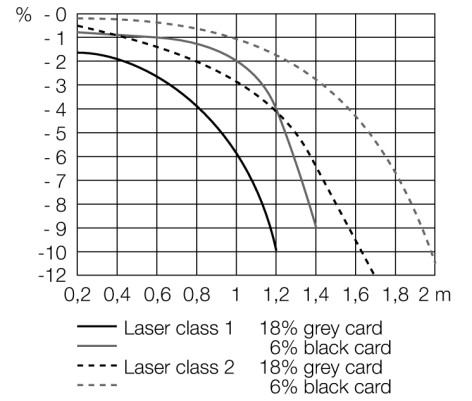
**Deviation curve**

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

**Photoelectric sensor**  
**laser sensor, diffuse mode, with adjustable background suppression**  
**Q60BB6LAF2000Q**

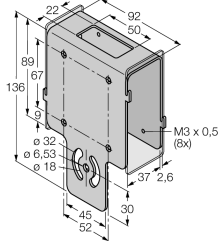
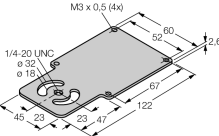
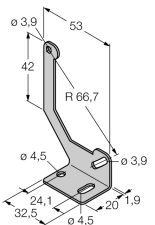
**TURCK**

Industrial  
Automation

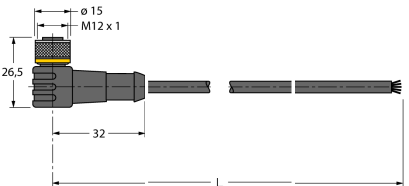


**Photoelectric sensor  
laser sensor, diffuse mode, with adjustable background suppression  
Q60BB6LAF2000Q**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMBAMSQ60IP	3073441	Protective housing with safety glas panel, stainless steel, for Q60	
SMBAMSQ60P	3073133	Backplane, stainless steel, for Q60 series	
SMBQ60	3067592	Mounting bracket, stainless steel, for Q60 series	

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
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>	