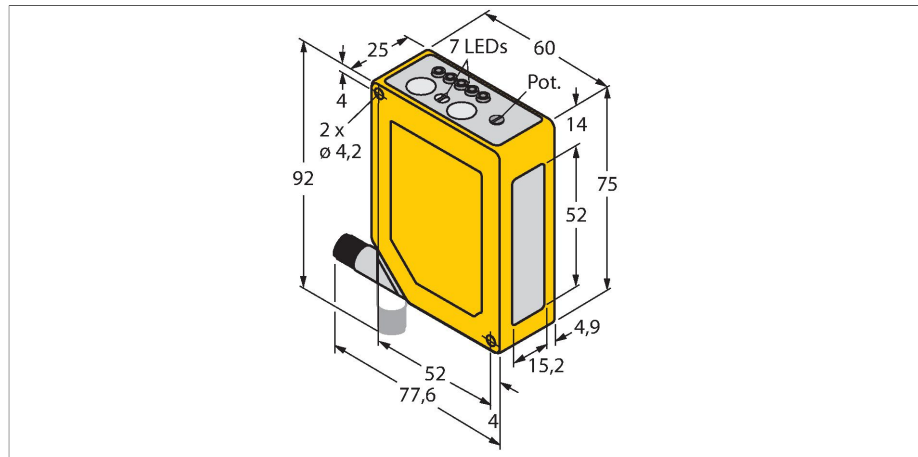


# Q60VR3LAF1400Q1

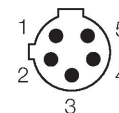
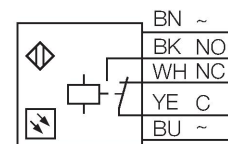
## Photoelectric Sensor – Laser Sensor, Diffuse Mode, with Adjustable Background Suppression



### 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                         | Q60VR3LAF1400Q1                         |
| ID no.                       | 3071744                                 |
| <b>Optical data</b>          |                                         |
| Function                     | Proximity switch                        |
| Operating mode               | Background suppression, adjustable      |
| Light type                   | Red                                     |
| Wavelength                   | 650 nm                                  |
| Laser class                  | ▲ 1                                     |
| Range                        | 200...1400 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        | Cable with connector, 7/8", 0.15 m, PUR |
| Number of cores              | 4                                       |

### 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                     |
| Tests/approvals        |                                          |
| 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> |