

QCM50-K1D40-Q8-4

Photoelectric Sensor – Color Sensor

Technical data

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| Type | QCM50-K1D40-Q8-4 |
| ID no. | 3806618 |
| Optical data | |
| Function | Color sensor |
| Light type | White |
| Light spot diameter | 4 mm |
| Range | 18...60 mm |
| Electrical data | |
| Operating voltage | 18...30 VDC |
| No-load current | ≤ 60 mA |
| Short-circuit protection | yes |
| Reverse polarity protection | yes |
| Communication protocol | IO-Link |
| Output function | NO contact, PNP/NPN |
| Switching frequency | 1.5 kHz |
| Readiness delay | ≤ 150 ms |
| Response time typical | < 0.18 ms |
| Setting option | Push Button Remote Teach |
| IO-Link | |
| IO-Link specification | V 1.1 |
| IO-Link port type | Class A |
| Communication mode | COM 2 (38.4 kBaud) |
| Minimum cycle time | 4 ms |
| Function Pin 4 | DI |
| Maximum cable length | 20 m |
| Mechanical data | |
| Design | Rectangular, QCM50 |
| Dimensions | 50 x 25 x 50.5 mm |
| Housing material | Die-cast zinc, Grey |
| Lens | plastic, PMMA |
| Electrical connection | Connectors, M12 × 1 |
| Number of cores | 4 |
| Ambient temperature | -20...+55 °C |
| Storage temperature | -20...+80 °C |
| Relative humidity | 0...95 % |
| Protection class | IP67 IP69K |

Features

- Protection classes IP67/IP69
- M12 × 1 male, 4-pin
- Range: 18...60 mm
- Narrow light spot
- One PNP/NPN switching output and IO-Link
- Stores and compares up to one color

Functional principle

Depending on the variant, the QCM50 color sensor reliably detects up to 12 stored colors and is therefore suitable for various applications in which color differences, color marks, contrast, production-related deviations or specific components must be identified, differentiated or detected. The color sensor is available in three different range variants. Depending on the model, the sensor offers glare suppression, an especially narrow light spot or a very high range. The robust metal housing is suitable for use in a wide range of environments, and the digital display on the sensor shows key information at all times. IO-Link rounds off the range of functionality, allowing parameterization via the control or also via tools such as PACTware™.

Technical data

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|------------------------|-------------|
| Special features | keep/defer |
| Power-on indication | LED, Green |
| Switching state | LED, Yellow |
| Error indication | LED, red |
| Tests/approvals | |
| Approvals | CE cULus |