## Data sheet

| Feature | Value |
| :---: | :---: |
| Design | Block design |
| Conforms to standard | EN 60947-5-2 |
| Authorisation | RCM Mark <br> c UL us - Recognized (OL) |
| CE mark (see declaration of conformity) | to EU directive for EMC in accordance with EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions |
| Certificate issuing department | UL E232949 |
| Materials note | Conforms to RoHS |
| Measuring principle | Optoelectronic |
| Detection method | Diffuse reflection sensor with background suppression |
| Type of light | $\begin{aligned} & \text { Red } \\ & \text { LED } \end{aligned}$ |
| Max. spot diameter | 2 mm at a sensing range of 30 mm |
| Minimal object diameter | 2 mm |
| Working range | $1 . .330 \mathrm{~mm}$ |
| Ambient temperature | $-25 \ldots 60^{\circ} \mathrm{C}$ |
| Max. black/white difference | 7 \% |
| Reference material | Standard white 90\%, 100x100 mm |
| Switch output | Push-pull |
| Switching element function | PNP, light switching NPN, dark switching |
| Hysteresis | 0.3 mm |
| Max. switching frequency | 800 Hz |
| Max. output current | 50 mA |
| Voltage drop | 0 ... 1.5 V |
| Short circuit strength | Pulsing |
| Operating voltage range DC | $10 . . .30 \mathrm{~V}$ |
| Residual ripple | 10 \% |
| Idle current | 10 mA |
| Polarity protected | for all electrical connections |
| Electrical connection 1, connection type | Cable with plug |
| Electrical connection 1, connection technology | M8x1, A-coded to EN 61076-2-104 |
| Electrical connection 1, number of pins/wires | 3 |
| Electrical connection 1, type of mounting | Screw lock |
| Material electrical contact | Brass, gold-plated |
| Cable length | 150 mm |
| Cable attribute | Standard |
| Material cable sheath | TPE-U(PUR) |
| Mounting type | with through hole |
| Tightening torque | 0.5 Nm |
| Assembly position | Any |
| Product weight | 10 g |
| Material housing | $\begin{aligned} & \mathrm{ABS} \\ & \mathrm{PC} \\ & \hline \end{aligned}$ |


| Feature | Value |
| :--- | :--- |
|  | TPE-U(PU) |
| Ready status display | Green LED |
| Operating status display | Yellow LED |
| Protection class | IP65 |
|  | IP67 |
| Insulation voltage | 500 V |
| Surge strength | 1 kV |
| Corrosion resistance classification CRC | 1 - Low corrosion stress |
| PWIS conformity | VDMA24364 zone III |
| Degree of contamination | 3 |

