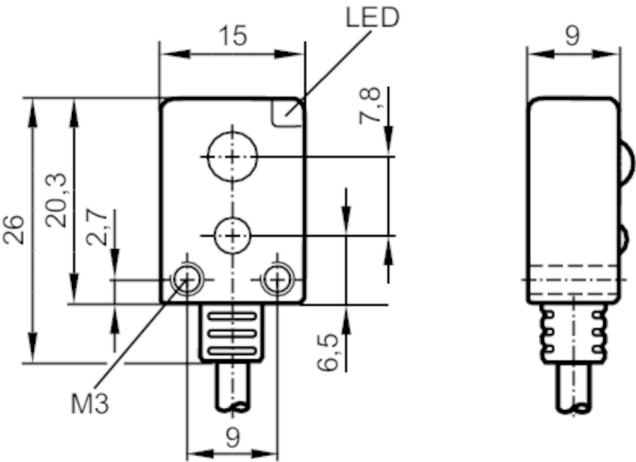


# O7H209



## Diffuse reflection sensor with background suppression

O7H-DNKG/0,20M/AS



receiver in upper lens  
transmitter in lower lens



| Product characteristics                         |      |                                                |
|-------------------------------------------------|------|------------------------------------------------|
| Type of light                                   |      | red light                                      |
| Housing                                         |      | rectangular                                    |
| Application                                     |      |                                                |
| Special feature                                 |      | Background suppression                         |
| Function principle                              |      | Diffuse reflection sensor                      |
| Electrical data                                 |      |                                                |
| Operating voltage                               | [V]  | 10...30 DC; ("supply class 2" according to UL) |
| Current consumption                             | [mA] | 20; ((24 V))                                   |
| Protection class                                |      | III                                            |
| Reverse polarity protection                     |      | yes                                            |
| Type of light                                   |      | red light                                      |
| Wave length                                     | [nm] | 633                                            |
| Outputs                                         |      |                                                |
| Electrical design                               |      | NPN                                            |
| Output function                                 |      | dark-on mode                                   |
| Max. voltage drop switching output DC           | [V]  | 2.5                                            |
| Permanent current rating of switching output DC | [mA] | 100                                            |
| Switching frequency DC                          | [Hz] | 750                                            |
| Short-circuit protection                        |      | yes                                            |
| Type of short-circuit protection                |      | pulsed                                         |
| Detection zone                                  |      |                                                |
| Range                                           | [mm] | 5...50; (white paper 200 x 200 mm)             |
| Range on white object (90 % remission)          | [mm] | 5...50                                         |



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|                                            |                  |
|--------------------------------------------|------------------|
| Range on grey object (18 % remission) [mm] | 6...48           |
| Range on black object (6 % remission) [mm] | 7...46           |
| Range adjustable                           | no               |
| Max. light spot diameter [mm]              | 2.5              |
| Light spot dimensions refer to             | at maximum range |
| Background suppression available           | yes              |

## Operating conditions

|                          |          |
|--------------------------|----------|
| Ambient temperature [°C] | -25...60 |
| Protection               | IP 65    |

## Tests / approvals

|              |              |
|--------------|--------------|
| EMC          | EN 60947-5-2 |
| MTTF [years] | 1610         |

## Mechanical data

|                        |               |
|------------------------|---------------|
| Weight [g]             | 14.4          |
| Housing                | rectangular   |
| Dimensions [mm]        | 20.3 x 15 x 9 |
| Materials              | PA            |
| Lens material          | PMMA          |
| Lens alignment         | side lens     |
| Tightening torque [Nm] | 0.5           |

## Displays / operating elements

|         |                  |                 |
|---------|------------------|-----------------|
| Display | switching status | 1 x LED, yellow |
|---------|------------------|-----------------|

## Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

## Electrical connection

Cable: 0.2 m, PUR; 3 x 0.14 mm<sup>2</sup>

Connector: 1 x M8; coding: A; Locking: snap-fit



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### Connection

