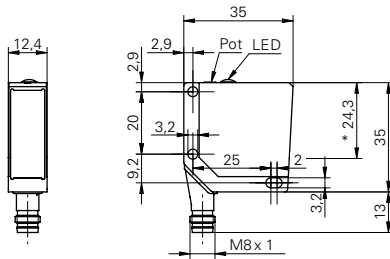


## Diffuse sensors with background suppression

## FHDM 12

**sample drawing**



\* emitter axis

## general data

|                                     |                        |
|-------------------------------------|------------------------|
| type                                | background suppression |
| light source                        | pulsed red LED         |
| sensing distance $T_w$              | 15 ... 300 mm          |
| sensing range $T_b$ (at $T_w$ max.) | 15 ... 300 mm          |
| sensing range $T_b$ (at $T_w$ min.) | 5 ... 15 mm            |
| light indicator                     | LED yellow             |
| sensing distance adjustment         | mechanical, 5 turn     |
| wave length                         | 660 nm                 |
| suppression of reciprocal influence | yes                    |

**electrical data**

|                                    |                      |
|------------------------------------|----------------------|
| response time / release time       | < 1 ms               |
| voltage supply range +Vs           | 10 ... 30 VDC        |
| current consumption max. (no load) | 35 mA                |
| current consumption typ.           | 25 mA                |
| voltage drop Vd                    | < 1,8 VDC            |
| output function                    | light / dark operate |
| output current                     | < 100 mA             |
| short circuit protection           | yes                  |
| reverse polarity protection        | yes                  |

## mechanical data

|                  |               |
|------------------|---------------|
| width / diameter | 12,4 mm       |
| height / length  | 35 mm         |
| depth            | 35 mm         |
| type             | rectangular   |
| housing material | die-cast zinc |
| front (optics)   | PMMA          |

**ambient conditions**

|                       |                |
|-----------------------|----------------|
| operating temperature | -25 ... +65 °C |
| protection class      | IP 67          |

**sample picture**



## Diffuse sensors with background suppression

## FHDM 12

| order reference   | connection types   | output circuit |
|-------------------|--------------------|----------------|
| FHDM 12N5001      | cable 4 pin, 2 m   | NPN            |
| FHDM 12N5001/S35A | connector M8 4 pin | NPN            |
| FHDM 12P5001      | cable 4 pin, 2 m   | PNP            |
| FHDM 12P5001/S35A | connector M8 4 pin | PNP            |