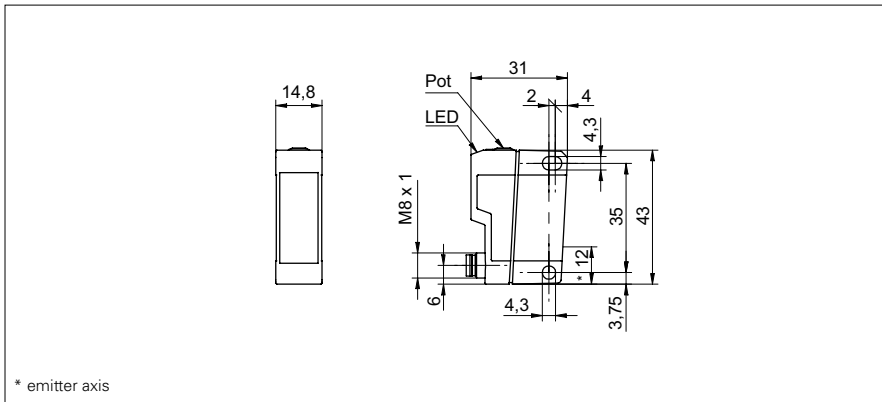


## Diffuse sensors with background suppression

## FHDK 14 (mechanically adjustable)

### sample drawing



### general data

type	background suppression
light source	pulsed red LED
alignment / soiled lens indicator	flashing light indicator
light indicator	LED yellow
sensing distance adjustment	mechanical, 10 turn
wave length	660 nm
suppression of reciprocal influence	yes
<b>sensing distance <math>T_w = 20 \dots 350</math> mm</b>	
sensing range $T_b$ (at $T_w$ max.)	20 ... 350 mm
sensing range $T_b$ (at $T_w$ min.)	5 ... 20 mm
<b>sensing distance <math>T_w = 30 \dots 500</math> mm</b>	
sensing range $T_b$ (at $T_w$ max.)	30 ... 500 mm
sensing range $T_b$ (at $T_w$ min.)	5 ... 30 mm

### electrical data

voltage supply range +Vs	10 ... 30 VDC
current consumption max. (no load)	30 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	14,8 mm
height / length	43 mm
type	rectangular
housing material	plastic (ASA, MABS)
front (optics)	PMMA

### ambient conditions

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

### sample picture



## Diffuse sensors with background suppression

## FHDK 14 (mechanically adjustable)

order reference	sensing distance Tw	connection types	output circuit	response time / release time	depth
<b>FHDK 14N5101</b>	20 ... 350 mm	cable 4 pin, 2 m	NPN	< 1 ms	32,7 mm
<b>FHDK 14N5101/S14</b>	20 ... 350 mm	connector M12 4 pin	NPN	< 1 ms	31 mm
<b>FHDK 14N5101/S35A</b>	20 ... 350 mm	connector M8 4 pin	NPN	< 1 ms	31 mm
<b>FHDK 14N5104</b>	30 ... 500 mm	cable 4 pin, 2 m	NPN	< 5 ms	32,7 mm
<b>FHDK 14N5104/S14</b>	30 ... 500 mm	connector M12 4 pin	NPN	< 5 ms	31 mm
<b>FHDK 14N5104/S35A</b>	30 ... 500 mm	connector M8 4 pin	NPN	< 5 ms	31 mm
<b>FHDK 14P5101</b>	20 ... 350 mm	cable 4 pin, 2 m	PNP	< 1 ms	32,7 mm
<b>FHDK 14P5101/S14</b>	20 ... 350 mm	connector M12 4 pin	PNP	< 1 ms	31 mm
<b>FHDK 14P5101/S35A</b>	20 ... 350 mm	connector M8 4 pin	PNP	< 1 ms	31 mm
<b>FHDK 14P5104</b>	30 ... 500 mm	cable 4 pin, 2 m	PNP	< 5 ms	32,7 mm
<b>FHDK 14P5104/S14</b>	30 ... 500 mm	connector M12 4 pin	PNP	< 5 ms	31 mm
<b>FHDK 14P5104/S35A</b>	30 ... 500 mm	connector M8 4 pin	PNP	< 5 ms	31 mm