

# Diffuse sensor Series 18

## 20-turn potentiometer

Tw 150 mm



## Side-mounted potentiometer

Tw 430 mm



<b>PNP</b>	light operate
	dark operate
	light/dark operate
<b>NPN</b>	light operate
	dark operate
	light/dark operate

cable
<b>FZAM 18P1155</b>
<b>FZAM 18N1155 (*)</b>

cable	connector
<b>FZAM 18P1155</b>	<b>FZAM 18P1155/S14</b>
<b>FZAM 18N1155(*)</b>	<b>FZAM 18N1155/S14(*)</b>

technical data	
sensing distance adjustable Tw	20...150 mm (curve 181)
sensing distance with doubling lens Tw	30...280 mm (curve 183)
output indicator	yellow LED
switching state indication	-
adjustment button / soiled lens indicator	flashing LED
light source / wave length	pulsed infrared diode / 880 nm
voltage supply range	10 - 30 VDC
max. supply current average value / peak value	30 mA / 45 mA
max. switching current	200 mA
voltage drop	≤ 1,8 VDC
response time / release time	≤ 0,5 ms / ≤ 0,5 ms
sensitivity adjustment	Pot, 20 turns
short circuit protection	yes
reverse polarity protection	yes
temperature range	-25...+55 °C
housing material	brass nickel plated / polycarbonate
protection class	IP 65
* in preparation	

20...150 mm (curve 181)
30...280 mm (curve 183)
yellow LED
-
flashing LED
pulsed infrared diode / 880 nm
10 - 30 VDC
30 mA / 45 mA
200 mA
≤ 1,8 VDC
≤ 0,5 ms / ≤ 0,5 ms
Pot, 20 turns
yes
yes
-25...+55 °C
brass nickel plated / polycarbonate
IP 65

20...430 mm (curve 182)
30...800 mm (curve 184)
yellow LED
-
flashing LED
pulsed infrared diode / 880 nm
10 - 30 VDC
30 mA / 45 mA
200 mA
≤ 1,8 VDC
≤ 1 ms / ≤ 1 ms
by side mounted 270° pot
yes
yes
-25...+55 °C
brass nickel plated / polycarbonate
IP 67

Accessories
<sup>1)</sup> * doubling lens
<sup>1)</sup> * cap nut 10 mm
glass cover
cap nut 7 mm

<b>107250</b>
<b>115913</b>
<b>103068</b>
<b>103067</b>
<sup>1)</sup> *must be ordered together

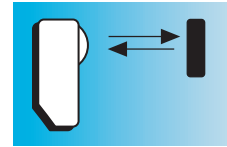
<b>107250</b>
<b>115913</b>
<b>103068</b>
<b>103067</b>
<sup>1)</sup> *must be ordered together

<b>AC</b>	light operate
	dark operate

<b>FZA 18A1001</b>
<b>FZA 18A3001</b>

technical data	
sensing distance Tw	75 mm
characteristics	Nr. 185
voltage supply range	20 - 264 VAC
supply current unswitched	≤ 1,8 mA
switching output	triac
switching current	min. 10 mA / max. 150 mA
voltage drop	≤ 9 VDC
response time / release time	≤ 20 ms / ≤ 40 ms
short circuit protection	no
housing material	PBT

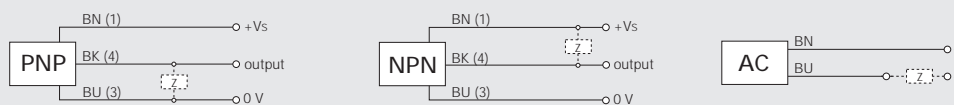
75 mm
Nr. 185
20 - 264 VAC
≤ 1,8 mA
triac
min. 10 mA / max. 150 mA
≤ 9 VDC
≤ 20 ms / ≤ 40 ms
no
PBT

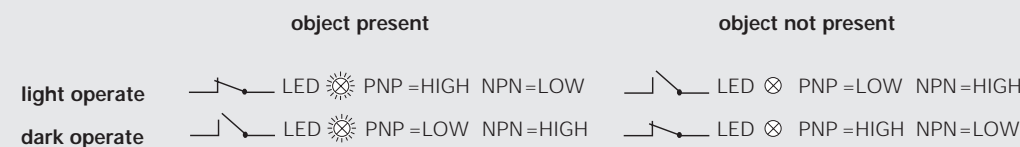
## Series 18

- Sensitivity setting by 20-turn potentiometer or by side-mounted potentiometer
- Adaptable fiber optics
- Short response/release time
- Doubling lens for increased sensing distance (DC types only)

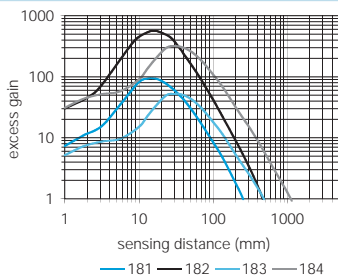
### connection diagrams



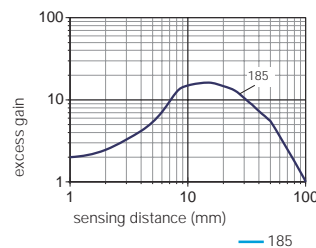
### output states



### excess gain curve DC



### excess gain curve AC



### accessories

- ES 14
- ES 24
- ES 33AP2 2 m PUR
- ES 34AP2 2 m PUR

Distance  
Tw 800 mm

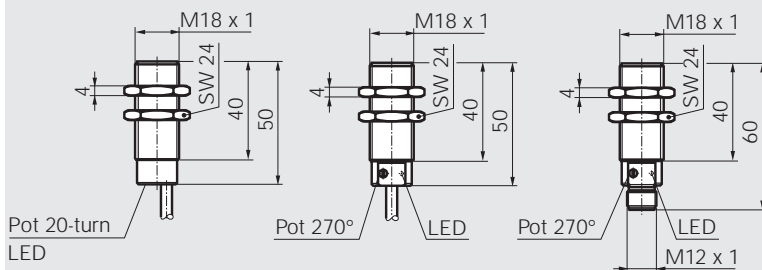
Side mounted  
potentiometer

20-turn poten-  
tiometer

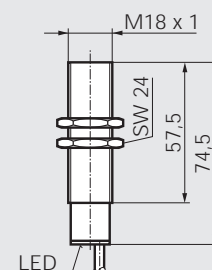
Adaptable  
fiber optics

Short  
response/  
release time

### DC types



### AC type



housing material: PBT