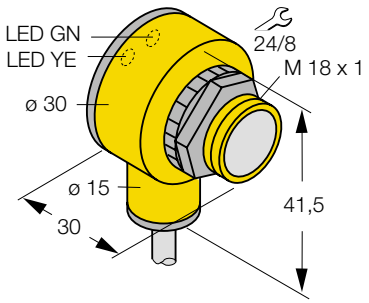
Photoelectric sensor

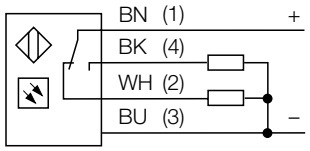
T18-SP6-FF100

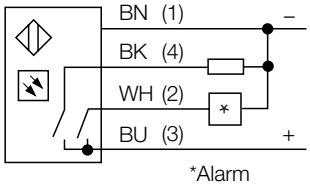


- **Diffuse mode sensor with fixed-field background suppression**
- **Cable, 2 m**

Type	T18-SP6-FF100
Ident-No.	3463600
Sensing range	100 mm
Operating mode	Diffuse mode sensors with fixed-field background suppression
Type of light	IR
Wave length	880 nm
Adjustment variable 1	light and dark operate or light operate and alarm
Adjustment means 1	output programmable
Rated operational voltage (DC) U_e	10...30 VDC
Rated operational current (DC) I_e	150 mA
No-load current I_0	≤ 35,0 mA
Short-circuit protection	yes, cyclic
Reverse polarity protection	yes
Output function	complementary outputs/normally open, PNP
Max. switching frequency	≤ 0,16 kHz
Max. switch-on delay	≤100 ms
Overload trip point	>220 mA
Degree of protection	IP 67
Operation temperature	-40...70 °C
Housing style	cylindric, thread; T18
Dimensions	41,5 x 30,0 mm
Housing material	PBT
Lens	acrylic
Wiring	Cable; PVC
Cable length	2,0 m
Cross section	4 x 0,5 mm^2
Supply voltage indication	LED; green
Switching status indication	LED; yellow
Error indication	LED; green flashing
Alarmausgang	LED; yellow flashing

Wiring diagram





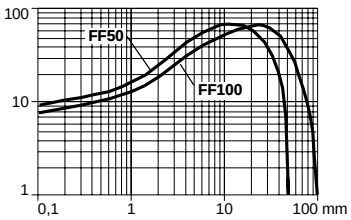
*Alarm

Function principles

Sensors with background suppression use one emitter and multiple receiving elements. The position of the object to be detected and the optical design of the sensor will determine on which receiver element most of the reflected light will fall. Additional electronics will decide if the object that reflects the light is located in or out the sensing window. Sensors may have either a fixed or an adjustable cut-off point. Typical applications are detection of dark object in front of a white background.

Excess gain curve

Excess gain in relation to the distance



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