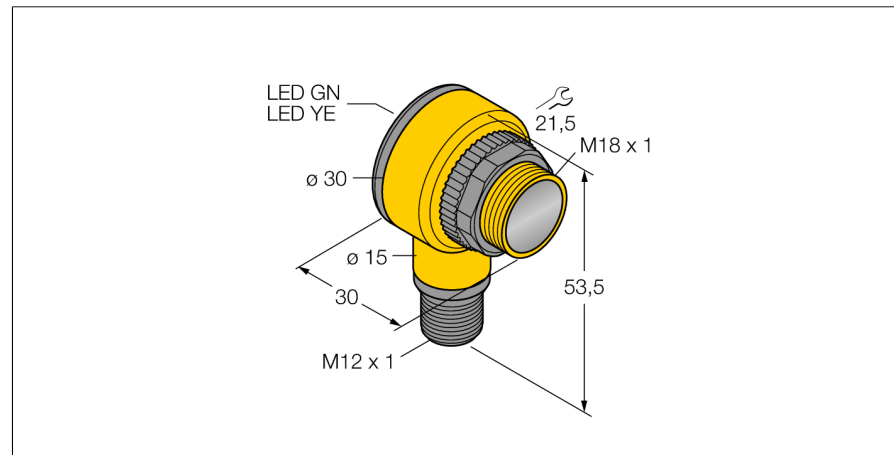


**Photoelectric sensor**  
**diffuse mode sensor with fixed-field background suppression**  
**T18SP6FF50Q**



- Male M12 x 1, 5-pin
- Protection classes IP67/IP69K
- Ambient temperature: -40...+70 ° C
- Operating voltage: 10...30 VDC
- PNP switching output, changeover

**Wiring diagram**

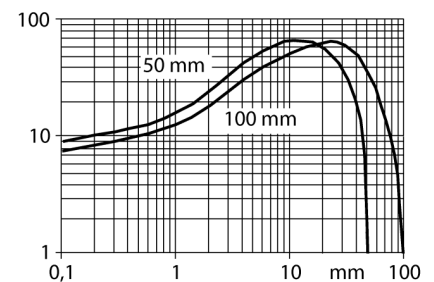


**Functional principle**

The emitter and receiver are incorporated in a single housing. The light reflection of the target is detected and triggers the sensor to switch. Thus the switching distance largely depends on the reflectivity of the target.

**Excess gain curve**

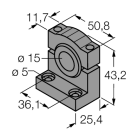
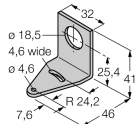
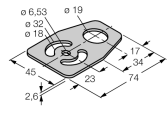
Excess gain in relation to the distance



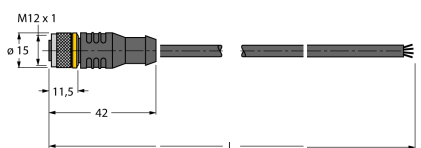
<b>Type code</b>	T18SP6FF50Q
Ident no.	3033414
<b>Operating mode</b>	diffuse mode sensor with fixed-field background suppression
Light type	IR
Wavelength	880 nm
Range	0...50 mm
Ambient temperature	-40...+70 °C
<b>Operating voltage</b>	10...30VDC
No-load current I <sub>0</sub>	≤ 35 mA
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	connection programmable, PNP
Switching frequency	≤ 160 Hz
Readiness delay	≤ 100 ms
Overcurrent release	> 220 mA
<b>Design</b>	cylindrical/threaded, T18
Dimensions	30 x 30 x 54 mm
Housing material	plastic, PBT
Lens	plastic, acrylic
Connection	male, M12 x 1
Protection class	IP67 / IP69K
MTTF	448 years acc. to SN 29500 (Ed. 99) 40 °C
<b>Power-on indication</b>	LED green
Switching state	LED yellow
Error indication	LED green flashing
Alarm display	LED yellow flashing

**Photoelectric sensor  
diffuse mode sensor with fixed-field background suppression  
T18SP6FF50Q**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMB1815SF	3053279	Mounting bracket, PBT black, for PICO-GUARD points	
SMB18A	3033200	Mounting bracket, stainless steel, for sensors with 18 mm thread	
SMB18FM	3079421	mounting bracket, black, M22 x1.5 mm, male thread, female thread M18 x 1, for sensors with 18 mm thread	
SMBAMS18P	3073134	Mounting bracket, stainless steel, for sensors with 18 mm thread	

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	
WKC4.4T-2/TEL	6625025	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	