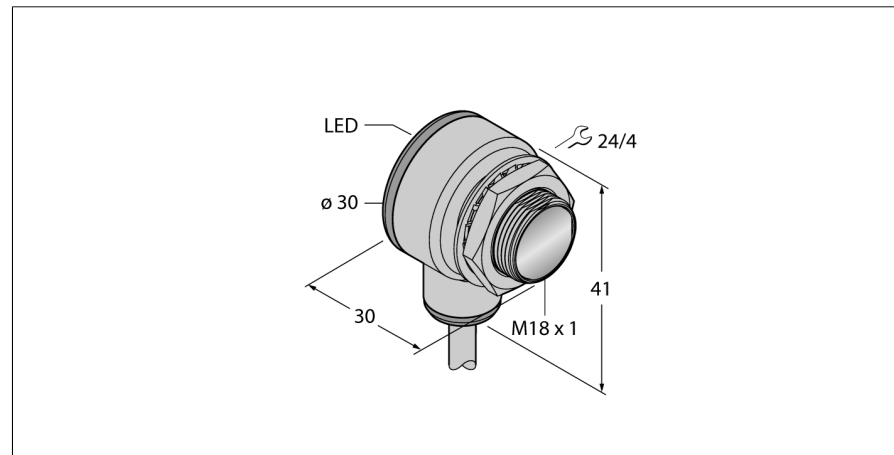
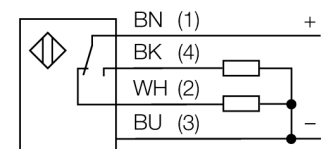


**Photoelectric sensor**  
**diffuse mode sensor with fixed-field background suppression**  
**TM18VP6FF50**



- Cable, 2 m
- Protection class IP67
- Ambient temperature: -40...+70 °C
- Metal housing
- Operating voltage: 10...30 VDC
- PNP switching output, light and dark operation

**Wiring diagram**



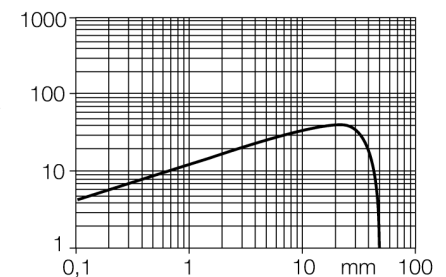
<b>Type code</b>	TM18VP6FF50
Ident no.	3042039
<b>Operating mode</b>	diffuse mode sensor with fixed-field background suppression
Light type	red
Wavelength	660 nm
Range	0...50 mm
Ambient temperature	-40...+70 °C
<b>Operating voltage</b>	10...30VDC
No-load current $I_0$	≤ 25 mA
Short-circuit protection	yes/ cyclic
Reverse polarity protection	yes
Output function	changover contact, PNP
Switching frequency	≤ 220 Hz
Readiness delay	≤ 100 ms
<b>Design</b>	cylindrical/threaded, TM18
Dimensions	30 x 30 x 41 mm
Housing material	metal/plastic, CuZn
Lens	plastic, acrylic
Connection	cable
Cable length	2 m
Cable cross section	4 x 0.5 mm <sup>2</sup>
Protection class	IP67
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

**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.

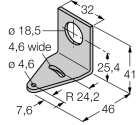
**Excess gain curve**

Excess gain in relation to the distance



**Photoelectric sensor  
diffuse mode sensor with fixed-field background suppression  
TM18VP6FF50**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
SMBT18Y	3069554	mounting bracket, rectangular, for sensors with 18 mm thread, 15.3 mm cable feedthrough or M12 x 1 male	
SMB18A	3033200	Mounting bracket, stainless steel, for sensors with 18 mm thread	
SMBAMS18P	3073134	Mounting bracket, stainless steel, for sensors with 18 mm thread	

