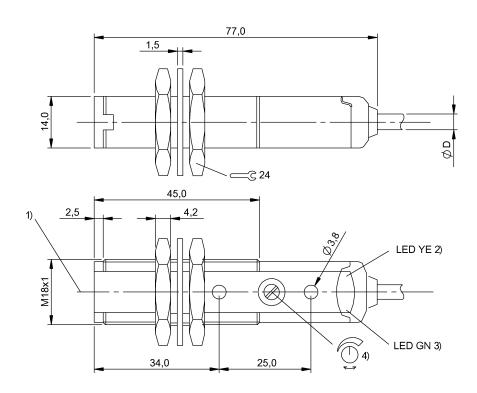
BALLUFF



1) Optical axis, 2) Output function, 3) Stability, 4) Sn





IND. CONT. EQ
US 1TD4
for use in the secondary of
a class 2 source of supply





Basic features

Approval/Conformity	CE
	cULus
	EAC
	WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference reflector	BOS R-1
Series	18KF
Style	Flat cylinder
	Straight optics
Trademark	Global

Display/Operation

Potentiometer 270°
Output function- LED yellow
Stability - LED green
Sensitivity (Sn)

Electrical connection

Cable diameter D	4.00 mm
Cable length L	2 m
Conductor cross-section	0.14 mm ²
Connection	Cable, 2.00 m, PVC
Number of conductors	4
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

No-load current lo max. at Ue	35 mA
Operating voltage Ub	1030 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current le	100 mA
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	8 %
Switching frequency	1000 Hz
Turn-off delay toff max.	0.5 ms
Turn-on delay ton max.	0.5 ms
Voltage drop Ud max. at le	2 V

BOS 18KF-NA-1QD-C-02 Order Code: BOS00J6



Environmental conditions

-25...55 °C Ambient temperature

EN 60068-2-27, Shock Half-sinus, 30 gn, 11 ms, 3x6 EN 60068-2-6, Vibration 10...55 Hz, amplitude 0.5 mm,

3x30 min IP67

Protection degree

Functional safety

MTTF (40 °C) 774 a

Material

Housing material PBT PVC Material jacket Material sensing surface **PMMA**

Mechanical data

Dimension Ø 18 x 77 mm Mounting Nut M18x1 Screw M3

Tightening torque max. 1.5 Nm

Optical features

Ambient light max. 5000 Lux Blind zone 100 mm Light type LED, red light Polarizing filter

Principle of optical operation Retroreflective sensor

Switching function, optical dark-on Wave length 660 nm

Output/Interface

Switching output NPN normally open (NO) NPN NC Pins 4-2

Range/Distance

Range 0...4.5 m Rated operating distance Sn 4.5 m Adjustable

Remarks

Polarizing filters prevent spurious switching due to reflecting and shiny parts.

For additional information, refer to user's guide.

Order accessories separately.

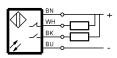
The sensor is functional again after the overload has been eliminated.

Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

Wiring Diagrams



Opto Symbols

