

1) Display and control panel, 2) Optical axis, 3) rotatable 270°



IND. CONT. EQ
 77HA
 for use in the secondary of
 a class 2 source of supply

Basic features

Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Series	26K
Style	Square Connection can be rotated

Display/Operation

Adjuster	Potentiometer 270°
Display	Output function- LED yellow Error - LED red Switching dist. - dig. disp. Stability - LED green
Setting	Sensitivity (Sn)

Electrical connection

Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
No-load current I_o max. at Ue	30 mA
Operating voltage U_b	10...30 VDC
Protection class	II
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	200 mA
Rated operating voltage U_e DC	24 V
Ripple max. (% of U_e)	10 %
Switching frequency	1000 Hz
Turn-off delay t_{off} max.	0.5 ms
Turn-on delay t_{on} max.	0.5 ms
Utilization category	DC -13
Voltage drop U_d max. at I_e	2.4 V

Environmental conditions

Ambient temperature	-20...60 °C
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
Protection degree	IP67

Functional safety

MTTF (40 °C)	6 a
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Material

Housing material	ABS
Material sensing surface	PMMA

Mechanical data

Dimension	17 x 50 x 50 mm
Mounting	Screw M4

Optical features

Ambient light max.	5000 Lux
Light type	LED, red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Special optical feature	Coaxial optics
Switching function, optical	Light-on dark-on
Wave length	660 nm

Output/Interface

Switching output	PNP normally open (NO) PNP NC Pins 4-2
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Range/Distance

Range	0...5.5 m
Rated operating distance Sn	5.5 m Adjustable

Remarks

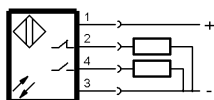
The sensor is functional again after the overload has been eliminated.
 Order accessories separately.
 Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.
 For additional information, refer to user's guide.
 Polarizing filters prevent spurious switching due to reflecting and shiny parts.
 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.

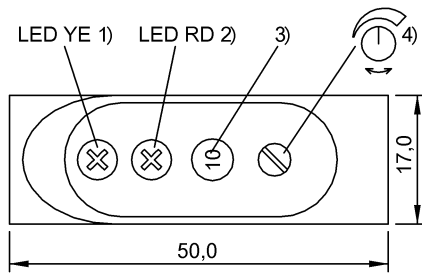
Connector Drawings



Wiring Diagrams



Help Views



- 1) Output function
- 2) Stability
- 3) Switching dist. dig. displ.
- 4) Sensitivity

Opto Symbols

