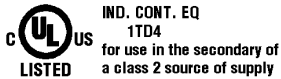


1) Display and control panel, 2) rotatable 270°, 3) Cover cap, removable, 4) standard lens, removable, 5) Light exit standard, 6) Light exit optional



Basic features

Additional features	Optics convertible (light exit 0°/ 90°), vertical light spot
Approval/Conformity	CE cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Contrast sensor
Series	67M
Style	Square Connection can be rotated

Display/Operation

Adjuster	button
Display	Output function- LED yellow Ready - LED green Error - LED green, flashing Short circuit - LED green, flashing
Setting	Contrast (switching point) Light-on/dark-on Switching output PNP/NPN

Electrical connection

Connection	Connector, M12x1-Male
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Input function	Time function on/off
Load resistance R_L min. (Analog V)	2.2 kOhm
No-load current I_0 max. at U_e	50 mA
Operating voltage U_b	10...30 VDC
Protection class	II
Rated insulation voltage U_i	75 V DC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	300 ms
Ripple max. (% of U_e)	8 %
Switching frequency	15000 Hz
Turn-off delay t_{off} max.	0.033 ms
Turn-on delay t_{on} max.	0.033 ms
Voltage drop U_d max. at I_e	2 V

Environmental conditions

Ambient temperature	-10...55 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6 Half-sinus, 30 gn, 6 ms, 3x10000
EN 60068-2-6, Vibration	10...55 Hz, amplitude 1 mm, 3x2 h
Protection degree	IP67

Material

Housing material	Aluminum, Die casting, Painted
Material sensing surface	PMMA
Surface protection	Painted

Remarks

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

For additional information, refer to user's guide.

Order accessories separately.

Do not press key using a pointed tool.

Reference object (target) for analog output: gray card, 100 x 100, 90 % remission, axial approach.

Reference object (target): Color bar card, 100 x 100, contrast yellow/white and blue/black, lateral approach of color bars, approach direction vertical to light spot length.

Mechanical data

Dimension	32 x 64 x 82 mm
Mounting	Screw M5

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Focused
LED group per IEC 62471	Exempt Group
Light spot size	1.5 x 5 mm at 9 mm
Light type	blue light/green light/red light
Principle of optical operation	Diffuse sensor, focused
Switching function, optical	Light/dark switching
Wave length	465 nm/520 nm/630 nm

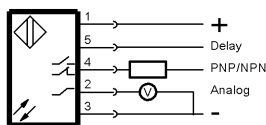
Output/Interface

Analog output	Analog, voltage 1...5.5 V
Duration of time function	20 ms
Switching output	PNP/NPN normally open/normally closed (NO/NC)
Time function	switch-off delay

Range/Distance

Range	6...12 mm
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Wiring Diagrams



Opto Symbols

