



Electrical connection

Display/Operation

Internet

Electrical data

Input function	Emitter on/off Key disable on/off Teach color (switchpoint)
No-load current I _o max. at U _e	40 mA
Operating voltage U _b	12...28 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)	10 %
Switching frequency	500 Hz
Turn-off delay t _{off} max.	1.0 ms
Turn-on delay t _{on} max.	1.0 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	2.4 V

Environmental conditions

Ambient temperature	-10...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms, 3x6
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	7 a
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Interface

Duration of time function	50 ms
Supplementary output	Acknowledgment output PNP
Switch function, supplementary output	Normally open (NO)
Switching output	3x PNP normally open (NO)
Time function	switch-off delay

Material

Housing material	ABS
Material sensing surface	PMMA

Mechanical data

Dimension	17 x 50 x 50 mm
Mounting part	Screw M4

Optical features

Ambient light max.	5000 Lux
Beam characteristic	Focused
Color resolution tolerance	Adjustable in 5 steps
Light spot size	1 x 5 mm at 22 mm
Light type	White light
Principle of optical operation	Diffuse sensor, fixed focus

Range/Distance

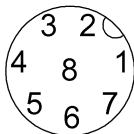
Range	18...22 mm
Sensing distance tolerance	±2 mm at 22 mm, tolerance level 3

Remarks

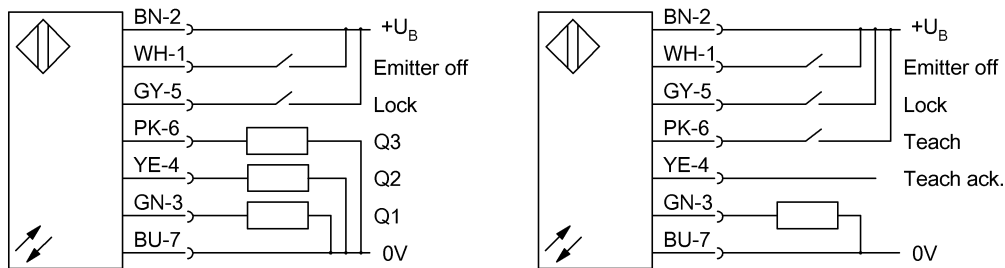
Do not press key using a pointed tool.
Order accessories separately.
For additional information, refer to user's guide.
With connector, e.g. BKS-S 138-... total length = switch length +17.5 mm.
Reference object (target): gray card, 100 x 100, 18 % remission, axial approach.
The sensor is functional again after the overload has been eliminated.
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.

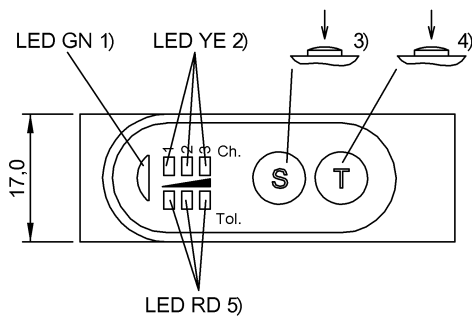
Connector Drawings



Wiring Diagrams (Schematic)



Help Views



- 1) Readiness
- 2) Output function
- 3) Confirm teach-in/selection
- 4) Function/mode select
- 5) Tolerance level indicator

Opto Symbols

