

2) rotatable 270°, 2) Light exit optional, 3) Cover cap, removable, 4) Light exit standard, 5) standard lens, removable, 6) Display and control panel, 7) Latch



**Basic features**

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

**Display/Operation**

<b>Adjuster</b>	Slide switch (3x) Key (2x)
<b>Display</b>	Output function - LED red Ready - LED green Error - LED green, flashing Short circuit - LED green, flashing
<b>Setting</b>	Key disable on/off Time function on/off Light-on/dark-on Switching output PNP/NPN Contrast (switching point)

Photoelectric Sensors  
**BKT M-71-U-03**  
**Order Code: BKT000U**

**BALLUFF**

**Electrical connection**

Cable diameter D	6.20 mm
Cable length L	3 m
Conductor cross-section	0.34 mm <sup>2</sup>
Connection	Cable, 3.00 m, PVC
Number of conductors	6
Polarity reversal protected	yes
Short-circuit protection	yes

**Electrical data**

Input function	Same function as button Open size 1/2/3/4
Load resistance RL min. (Analog V)	2.2 kOhm
No-load current Io max. at Ue	80 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	10.0 kOhm
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Ripple max. (% of Ue)	10 %
Switching frequency	10000 Hz
Turn-off delay toff max.	0.05 ms
Turn-on delay ton max.	0.05 ms
Voltage drop Ud max. at Ie	2 V

**Environmental conditions**

Ambient temperature	-10...55 °C
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 1.5 mm, 3x2 h
IP rating	IP67

**Remarks**

Do not press key using a pointed tool.  
 Order accessories separately.  
 For additional information, refer to user's guide.  
 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.  
 The sensor is functional again after the overload has been eliminated.

**Interface**

Analog output	Analog, voltage 0...5.5 V
Duration of time function	20 ms
Switching output	PNP/NPN normally open/normally closed (NO/NC)
Time function	switch-off delay

**Material**

Housing material	Zinc, Die casting, Painted
Material jacket	PVC
Material sensing surface	Glass
Surface protection	Painted

**Mechanical data**

Dimension	31 x 105.3 x 62.3 mm
Mounting part	Screw M5

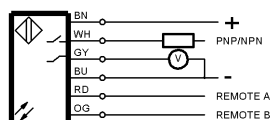
**Optical features**

Ambient light max.	5000 Lux
Beam characteristic	Focused
Light spot size	1.5 x 5 mm at 9 mm
Light type	green light/red light
Principle of optical operation	Diffuse sensor, focused
Switching function, optical	Light/dark switching
Wave length	526 nm/630 nm

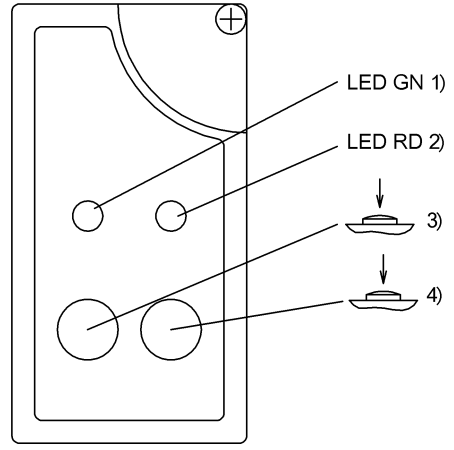
**Range/Distance**

Range	7...11 mm
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**Wiring Diagrams**



## Help Views



- 1) stability
- 2) Output function
- 3) Store background
- 4) Store marking

## Opto Symbols

