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DATA SHEET

GLL70P-22TGY1DZZZZZ1Z1

GLL70
Fiber-optic sensors

SICK Sensor Intelligence

Illustration may differ

FIBER-OPTIC SENSORS

GLL70P-22T-GY1DZZZZZ1Z1

ORDERING INFORMATION

Type	part no.
GLL70P-22TGY1DZZZZZ1Z1	6087430

Further device versions and accessories at www.sick.com/GLL70

DETAILED TECHNICAL DATA

FEATURES

Device type	Fiber-optic amplifier
Device type detail	Stand-alone
Functional principle detail	Depending on the optical fiber cable used
Sensing range max.	Depending on the optical fiber cable used
Emitted beam	
Light source	LED
Type of light	Visible red light
Key LED figures	
Normative reference	EN 62471:2008-09 | IEC 62471:2006, modified
LED risk group marking	Free group
Wave length	660 nm
Average service life	100,000 h at T_a = +25 °C
Adjustment	
Wire/pin	For deactivation of the sender and execution of test logic For setting the sensing range For synchronizing the output signal with the trigger signal
Display + operating buttons	For configuring the sensor parameters
Display	
LED green	Operating indicator Static on: power on
LED yellow	Status of digital output Permanently on: Switching output active Permanently off: Digital output not active Flashing: Executing teach-in/teach-in error
Display	Display of sensor functions Menu languages. German, English, Chinese, Korean

SAFETY-RELATED PARAMETERS

$MTTF_D$	581.5 years
DC_{avg}	0%
T_M (mission time)	20 years

ELECTRONICS

Supply voltage U_B	10 V DC ... 30 V DC [1]
Ripple	± 10 %
Current consumption	≤ 50 mA
Protection class	III
Digital output	
Number	1
Type	PNP [2]
	NPN: open collector [2]
Signal voltage PNP HIGH/LOW	Approx. U_B-2.5 V / 0 V
Signal voltage NPN HIGH/LOW	Approx. U_B / < 2.5 V
Output current $I_{max.}$	≤ 100 mA
Circuit protection outputs	Reverse polarity protected
	Overcurrent protected
	Short-circuit protected
Response time	≤ 50 µs
	≤ 250 µs
	≤ 1,000 µs
	≤ 4,000 µs
Switching frequency	10 kHz [3]
	2 kHz
	500 Hz
	31.25 Hz
Time functions	Switch-on delay
	Off delay
	ON and OFF delay
	Impulse (one shot)
	Switch-on delay and pulse
	Deactivated
Delay time	Adjustment via operating buttons, 0 ms ... 30,000 ms
Digital input	
Number	1
Pin/Wire assignment	
Function of pin 4/black (BK)	Digital output, object present → Output Q HIGH
Function of pin 4/black (BK) – detail	The pin 4 function of the sensor can be configured
Function of pin 2/white (WH)	Teach-in input
Function of pin 2/white (WH) – detail	The pin 2 function of the sensor can be configured

[1] Limit values.

[2] Selectable via menu.

[3] With light/dark ratio 1:1.

MECHANICS

Housing	Rectangular
Dimensions (W x H x D)	10.7 mm x 33.3 mm x 82.1 mm
Connection	Male connector M8, 4-pin
Material	
Housing	Plastic, PC
Protection hood	Plastic, PC
Display	Plastic, PET
Operating buttons	Plastic, POM

Male connector	Metal, nickel-plated brass
Weight	Approx. 28 g

AMBIENT DATA

Enclosure rating	IP50 (EN 60529)
Ambient operating temperature	–25 °C ... +55 °C
Ambient temperature, storage	–40 °C ... +70 °C
Typ. Ambient light immunity	Artificial light: ≤ 16,000 lx Sunlight: ≤ 67,000 lx
Shock resistance	50 g, 11 ms (3 positive and 3 negative shocks along X, Y, Z axes, 18 total shocks (EN60068-2-27))
Vibration resistance	10 Hz ... 55 Hz (Amplitude 1.5 mm, 3 x 120 min (EN60068-2-6))
Air humidity	35 % ... 85 %, relative humidity (no condensation)
Electromagnetic compatibility (EMC)	EN 60947-5-2
UL File No.	NRKH.E300503 & NRKH7.E300503

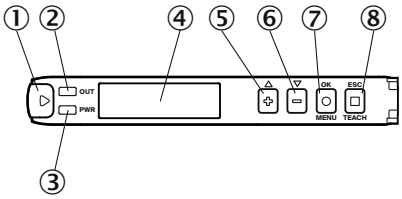
SMART TASK

Timer function	Deactivated Switch-on delay Off delay ON and OFF delay Impulse (one shot) Switch-on delay and pulse
Inverter	Yes

CERTIFICATES

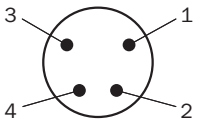
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓
cULus certificate	✓
Photobiological safety (IEC EN 62471)	✓

DISPLAY AND ADJUSTMENT ELEMENTS

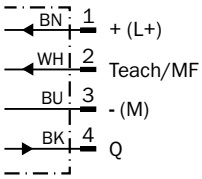


① Fiber optic interlock
② LED yellow
③ LED green
④ Display
⑤ (+) button
⑥ (-) pushbutton
⑦ Menu/OK pushbutton
⑧ Teach-in/escape pushbutton

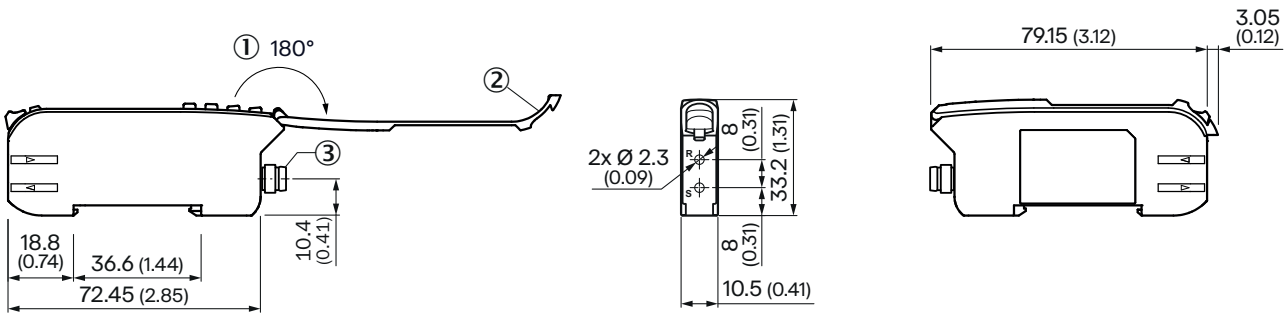
CONNECTION TYPE MALE CONNECTOR M8, 4-PIN



CONNECTION DIAGRAM CD-603



DIMENSIONAL DRAWING



Dimensions in mm (inch)
① aperture angle
② Hinged cover for the pushbuttons
③ Connection

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6087430

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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