



MASQ47-36PEKU1SA10

MAS

ABSOLUTE ENCODERS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
MASQ47-36PEKU1SA10	1113979

Other models and accessories → www.sick.com/MAS



Detailed technical data

Features

Dimensions	47 mm x 47 mm x 10 mm
Measuring range	0° ... 360°
Resolution	12 bit
Linearity error, typ.	± 1°
Repeatability	< 0.3° ¹⁾
Number of adjustable angles	32
Sampling rate	900 Hz
Electrical wiring	DC 5-wire
Working distance	1.5 mm ... 4 mm ²⁾
Magnetic misalignment	± 0.2 mm
Display	
LED green	Static on: power on Flashing: IO-Link mode Flashing: find device activated
LED yellow	Q1 (pin4) permanently on: contact closed Flashing: find device activated Flashing: Magnet too far away
LED yellow 1	Q2 (pin2) permanently on: contact closed Flashing: find device activated Flashing: Magnet too far away
LED yellow 2	Q3 (pin5) permanently on: contact closed Flashing: find device activated Flashing: Magnet too far away

¹⁾ Supply voltage U_B and constant ambient temperature T_a .

²⁾ This specification is measured with the magnets listed under accessories. The value may vary if other magnets are used.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC
Residual ripple	10 %
Voltage drop	≤ 2 V ¹⁾
Current consumption	≤ 30 mA ²⁾

¹⁾ At I_a max.

²⁾ Without load.

Power-up pulse protection	✓
Connection type	Cable with plug M12, 5-pin, 1 m
Material, cable	PUR
Conductor cross section	0.34 mm ²
Cable diameter	4.8 mm
Housing material	Plastic (PPS)
Tightening torque	Typ. 1 Nm
Protection class	III

1) At I_a max.

2) Without load.

Ambient data

EMC	EN 61000-4-2 ESD: 4 kV CD / 8 kV AD, EN 61000-4-3 HF radiated: 10 V _{eff} , EN 61000-4-4 burst: 2 kV, EN 61000-4-6 HF wire-bound: 10 V _{eff}
Enclosure rating	IP67 (EN 60529) ¹⁾ IP68 (EN 60529) ¹⁾
Operating temperature range	-40 °C ... +80 °C
Resistance to shocks	100 g, 6 shocks, 6 ms (EN 60068-2-27)
Continuous shock	40 g, 6 ms, 8,000 shocks (EN 60068-2-29)
Resistance to vibration	15 g, 5 Hz ... 2,000 Hz, 120 minutes (EN 60068-2-6)

1) IPx8 = 168h, 1m.

Smart Task

Smart Task name	Base logics
Timer function	Deactivated Switch-on delay Off delay ON and OFF delay Impulse (one shot)
Inverter	Yes
Switching signal	
Switching signal Q _{L1}	Switching output
Switching signal Q _{L2}	Switching output
Switching signal Q _{L3}	Switching output

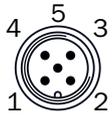
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
cULus certificate	✓
IO-Link	✓
Information according to Art. 3 of Data Act (Regulation EU 2023/2854)	✓

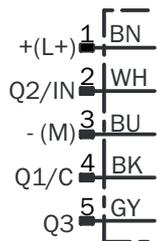
Classifications

ECLASS 5.0	27270502
ECLASS 5.1.4	27270502
ECLASS 6.0	27270590
ECLASS 6.2	27270590
ECLASS 7.0	27270502
ECLASS 8.0	27270502
ECLASS 8.1	27270502
ECLASS 9.0	27270502
ECLASS 10.0	27270502
ECLASS 11.0	27270502
ECLASS 12.0	27270502
ETIM 5.0	EC001486
ETIM 6.0	EC001486
ETIM 7.0	EC001486
ETIM 8.0	EC001486
UNSPSC 16.0901	41112113

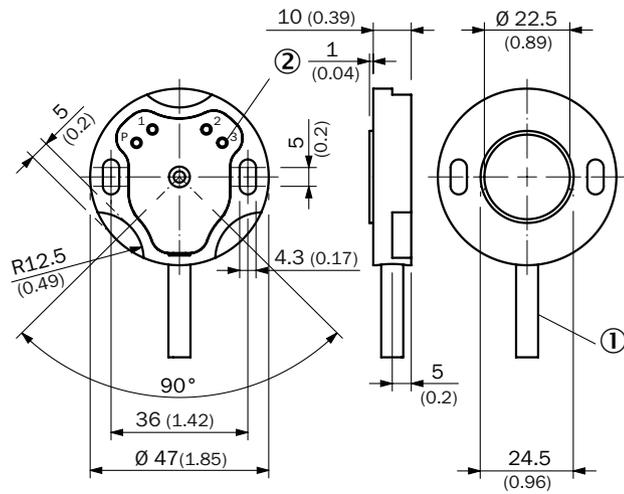
Connection diagram



Connection diagram



Dimensional drawing



Dimensions in mm (inch)

- ① Connection
- ② LED, (4 x)

Recommended accessories

Other models and accessories → www.sick.com/MAS

	Brief description	Type	part no.
magnets			
	<ul style="list-style-type: none"> • Product segment: Magnets • Product: Position magnets • Description: Neodym[™] - Note: Direct or indirect sale of the Neodym magnets we supply or end products manufactured from these magnets is prohibited in the following countries: USA, Canada and Japan. 	MAG-1005-N	5344197
	<ul style="list-style-type: none"> • Product segment: Magnets • Product: Position magnets • Description: Magnet with bracket, Neodym[™] - Note: Direct or indirect sale of the Neodym magnets we supply or end products manufactured from these magnets is prohibited in the following countries: USA, Canada and Japan. • Material: PA 	MAGH-1004-N	2126478
	<ul style="list-style-type: none"> • Product segment: Magnets • Product: Position magnets • Description: Magnet with bracket, samarium cobalt • Material: PA 	MAGH-1004-SMCO	2131041

	Brief description	Type	part no.
network devices			
		SIG350-0004AP100	6076871
		SIG350-0005AP100	6076923
		SIG350-0006AP100	6076924
		IOLA2US-01101 (SiLink2 Master)	1061790
		SIG300-0A0GAA100	1131014
		SIG300-0A04AA100	1131011
		SIG300-0A05AA100	1131012
		SIG300-0A06AA100	1131013

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com