

EAI 76M - EVAL KIT SIN/COS

THROUGH HOLLOW SHAFT SIN/COS ENCODER

MAIN FEATURES

Inductive encoder evaluation kit with sin/cos output

- Wear-free thanks to non-contact inductive technology
- Insensitive to magnetic fields (no shielding required)
- +5 VDC power supply
- Sin/cos single ended or differential 3 Vpp electrical interface
- Connection with PCB connector (150 mm cable extension included)
- 18 mm through hollow shaft diameter
- $\pm 45^\circ$ mechanical adjustment for easy alignment
- Operating temperature $-40^\circ \dots +105^\circ\text{C}$

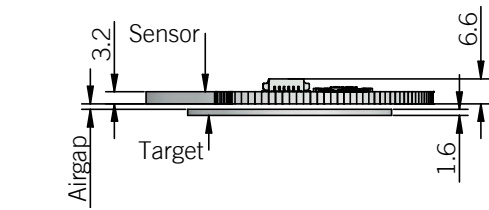


ORDERING CODE

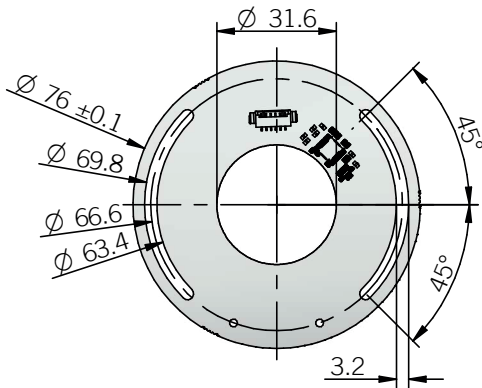
EAI 76M - EVALKIT

SERIES inductive absolute EAI		
	MODEL kit $\varnothing$ 76mm 76M	TYPE evaluation kit -EVALKIT

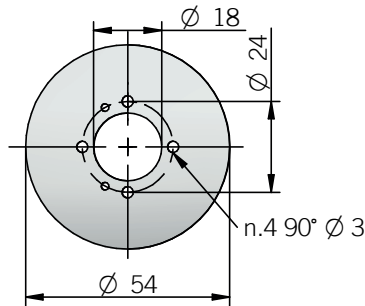
76M EVAL KIT



SENSOR BOARD

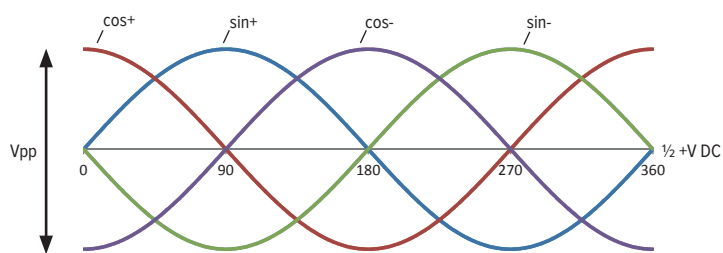


TARGET BOARD



dimensions in mm

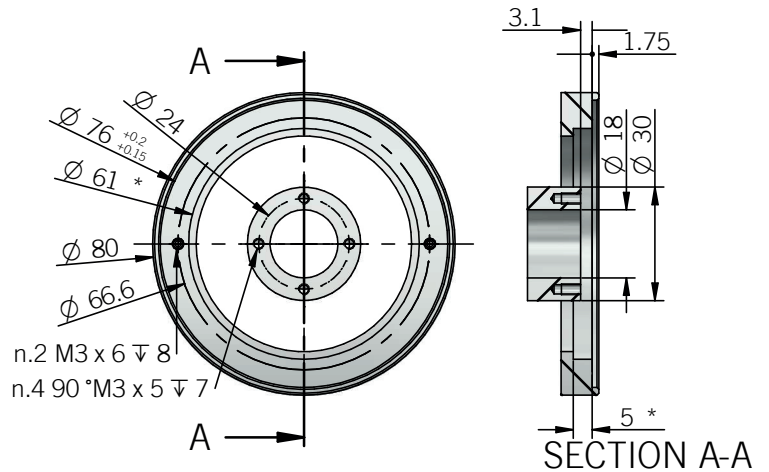
SIGNAL DIAGRAM



CONNECTIONS

Function	Connector
+V DC	1
0 V	2
COS-	3
COS+	4
SIN-	5
SIN+	6

RECOMMENDED INTERFACE FLANGE DESIGN



INSTALLATION NOTE

Each sensor board is associated with its own target board and cannot be swapped between each other

* no metallic parts inside

ELECTRICAL SPECIFICATIONS

Resolution	1 sin/cos turn (360° mech)
Power supply¹	4,5 ... 5,5 V DC
Corrente assorbita senza carico	30 mA typical
Max load current	5 mA / channel
Electrical interface²	analogue sin/cos offset +2,5 V DC / amplitude 3 Vpp (2,6 ... 3,4 Vpp)
Latency	< 5 µs
Max output frequency	10 kHz
Accuracy at max airgap	± 1° max
Counting direction	see signal diagram (CCW, shaft view)
Output type	Molex® Picoblade connector 6 pin 53261-0671 Molex® Picoblade 510210600 with 150 mm cable ext (AWG28)
Electromagnetic compatibility	according to 2014/30/EU directive
RoHS	according to 2011/65/EU directive

MECHANICAL SPECIFICATIONS

Bore diameter	ø 18 mm
Enclosure rating	IP 00 (IEC 60529)
Airgap	1,5 ± 0,5 mm
Max rotation speed	> 20'000 rpm
Operating temperature^{3,4}	-40° ... +105 °C (-40° ... +221°F)
Storage temperature⁴	-40° ... +105 °C (-40° ... +221°F)
Weight	< 100g (3,53 oz)

¹ as measured at the transducer without cable influences

² for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

³ measured on the transducer flange

⁴ condensation not allowed

Connector (6 pin)
Molex® 53261-0671
front view

