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
- ± 45° mechanical adjustment for easy alignment
- Operating temperature -40° ... +105°C

ORDERING CODE

EAI 76M - EVALKIT

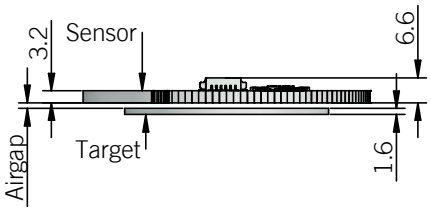
SERIES
inductive absolute EAI

MODEL
kit ø 76mm 76M

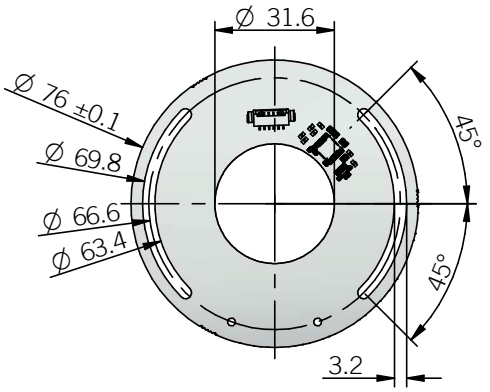
TYPE
evaluation kit -EVALKIT

eltra.it@broadcom.com

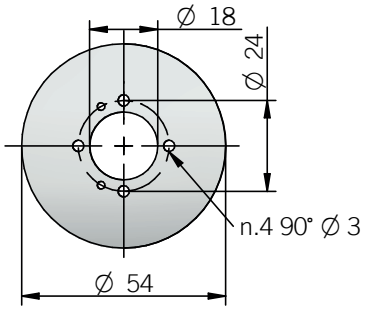
76M EVAL KIT



SENSOR BOARD

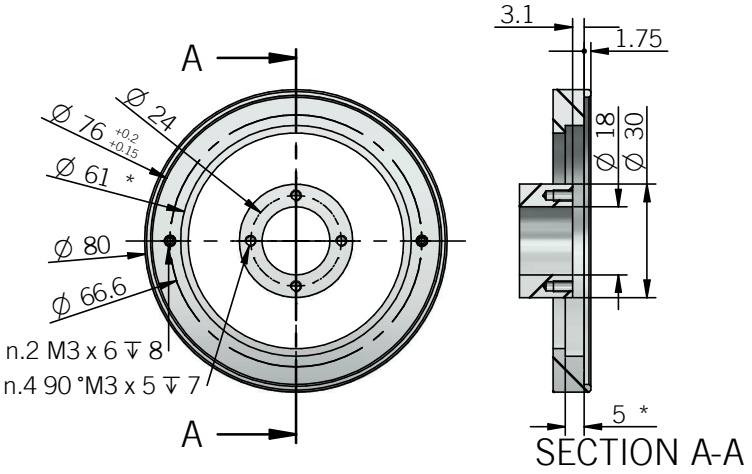


TARGET BOARD



dimensions in mm

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

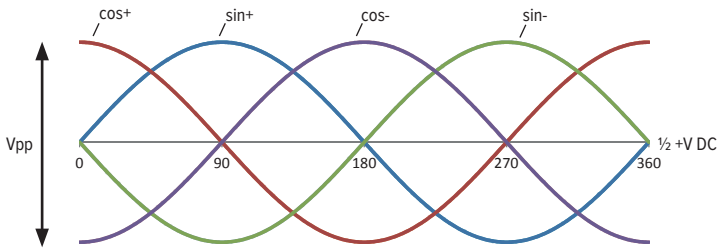
Resolution	1 sin/cos turn (360° mech)
Power supply[1]	4,5 ... 5,5 V DC
Corrente assorbita **senza carico**	30 mA typical
Max load current	5 mA / channel
Electrical interface[2]	analogue sin/cos offset +2,5 V DC / amplitude 3 Vpp (2,6 ... 3,4 Vpp)
Latency	< 5 µs
Max output frequency	10 kHz
Accuracy	< 0,5°
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 temperature[4]	-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

SIGNAL DIAGRAM



CONNECTIONS

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

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