

## Type 2REXI-A

- EX-Proof Shaft Encoder -  $\varnothing$  68 mm
- Shaft :  $\varnothing$  8 mm to  $\varnothing$  16 mm
- Resolution up to 10,000 ppr
- IP 66 (IP 67 option)
- Ex Certificates



### Electrical Specifications

<b>Code:</b>	Incremental
<b>Resolution:</b>	1 to 10,000 ppr (pulses per revolution)
<b>Supply Voltage:</b>	4.5 Vdc min. to 30 Vdc max. ** (45 mA max. - no load)
<b>Output Voltage:</b>	Low: 500 mV max. at 10 mA High: ( $V_{in} - 0.6$ ) at -10 mA ( $V_{in} - 1.3$ ) at -25 mA
<b>Output Current:</b>	30 mA max. load per output channel **
<b>Frequency Response:</b>	300 kHz max. **
<b>Output Format:</b>	Two channel (A, B) quadrature with rotation detector puls (Reed contact)
<b>Phase Sense:</b>	A leads B clockwise (CW) from the mounting end of the encoder
<b>Index:</b>	rotation detector puls (Reed contact)
<b>Accuracy:</b>	+/- 0.8 arc-min.
<b>Outputs:</b>	ASIC Push-pull and Differential OL7272 Differential Line Driver 26C31 Differential Line Driver 5V output (with 5V input)
<b>Electrical Protection:</b>	Output short circuit protected Reverse polarity protected ( <i>ASIC only</i> )
<b>Noise Immunity:</b>	Tested to EN61000-6-2 : 2005 (industrial environments) Electromagnetic compatibility (EMC) and EN 61000-6-3 : 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC)

### Mechanical Specifications

<b>Material:</b>	Housing: Aluminum Cap: Aluminum Shaft: AISI 303
<b>Weight:</b>	Encoder: Approx. 1325 gr (47.44 oz) Cable: 50 gr / meter (1.76 oz / meter)
<b>Bearing Life:</b>	> $1.9 \times 10^{10}$ revolutions at rated load
<b>Shaft Speed:</b>	3,000 rpm continuous (max.) IP 66
<b>Starting Torque:</b>	< 0.1 Nm (14.16 oz-in) at 25° C IP 67
<b>Mass Moment of Inertia:</b>	30 gcm <sup>2</sup> ( $4.25 \times 10^{-4}$ oz-in-sec <sup>2</sup> )
<b>Shaft Loads:</b>	Axial 50 N (11.25 lbs) max. Radial 100 N (22.50 lbs) max.

### Environmental Specifications

<b>Operating Temp.:</b>	-40° to +70° C
<b>Storage Temp.:</b>	-40° to +85° C
<b>Shock:</b>	100 G / 11 ms
<b>Vibration:</b>	10-2000 Hz / 10 G
<b>Bump:</b>	10 G / 16 ms (1000 x 3 axis)
<b>Humidity:</b>	98 % RH without condensation
<b>Enclosure Rating:</b>	IP 66 / Nema 6 (approx.) IP 67 / Nema 6 (approx.) option

### Connection Options

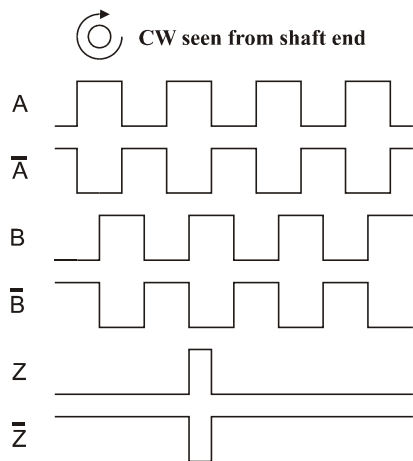
<b>Cable:</b>	8 leads (0.14 mm <sup>2</sup> , 26 AWG) twisted pairs; shielded; halogen free
<b>Cable Glands:</b>	6-position terminal block (inside cap) 1/1 NPT ANSI B1.20.1

\*\*= It is recommended user not to combine max. Value for all 3 parameters

## Certifications

<b>ATEX:</b>	Certificate No.: TÜV 10 ATEX 556306X II 2 GD Ex db IIB T5 Gb and Ex tb IIIB T100 °C Dn IP 6x -40C ≤ Tamb ≤ +70C
<b>IECEX:</b>	Certificate No.: IECEX TUN 10.0011X Ex db IIB T5 Ex tb IIIB T100 °C Db, IP65 -40C ≤ Tamb ≤ +70C
<b>EAC Ex:</b>	НАННО «ЦСВЭ» No. EAЭС RU C-DK.AA87.B.00266/19 1Ex db IIB T5 Gb X, Ex tb IIIB T100°C Db X -40°C<T.amb<+70°C

## Output waveform



Channel tolerance      180 e° +/- 36 e°  
Phase difference tolerance      90 e° +/- 18 e°  
Z channel tolerance      90 e° +/- 18 e°

## Disk Resolutions (pluses per revolution)

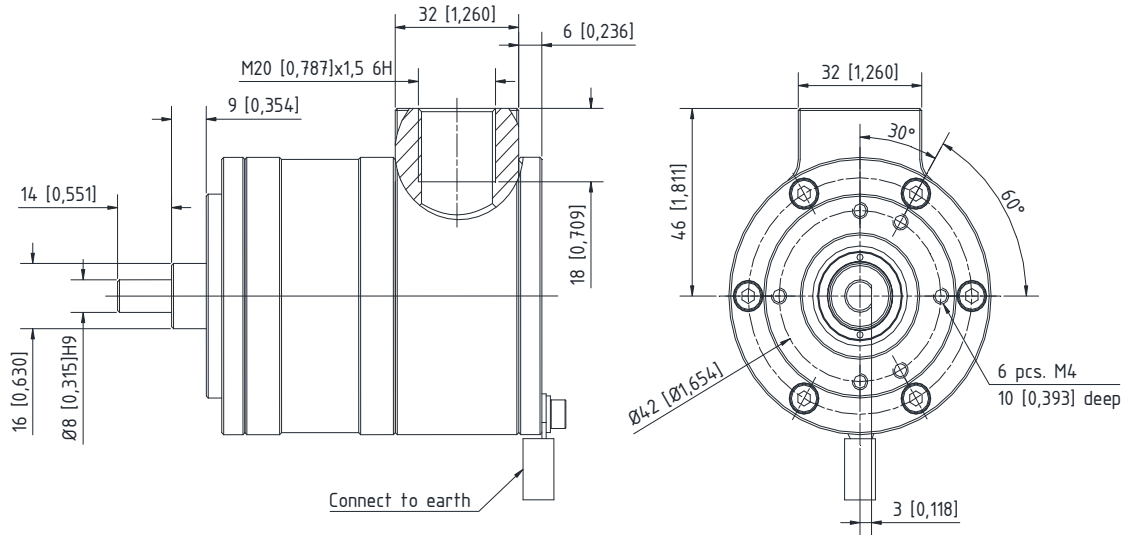
1	32	125	720	3000
2	36	150	800	3072
5	40	180	1000	3600
6	45	200	1000	4000
7	47	250	1024	4096
8	50	256	1131	5000
10	60	300	1200	8192
12	64	360	1250	9000*
15	70	400	1270	10000*
16	75	455	1500	
18	80	500	2000	
20	90	512	2048	
25	100	600	2400	
30	120	635	2500	

### Other options on request

Pulses per revolution,  
min. 1 – max. 10.000

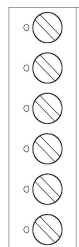
\* Operating temperature: -20° C to 50° C

## Mechanical Dimensions



## Output Terminations

Connection clamps on PCB

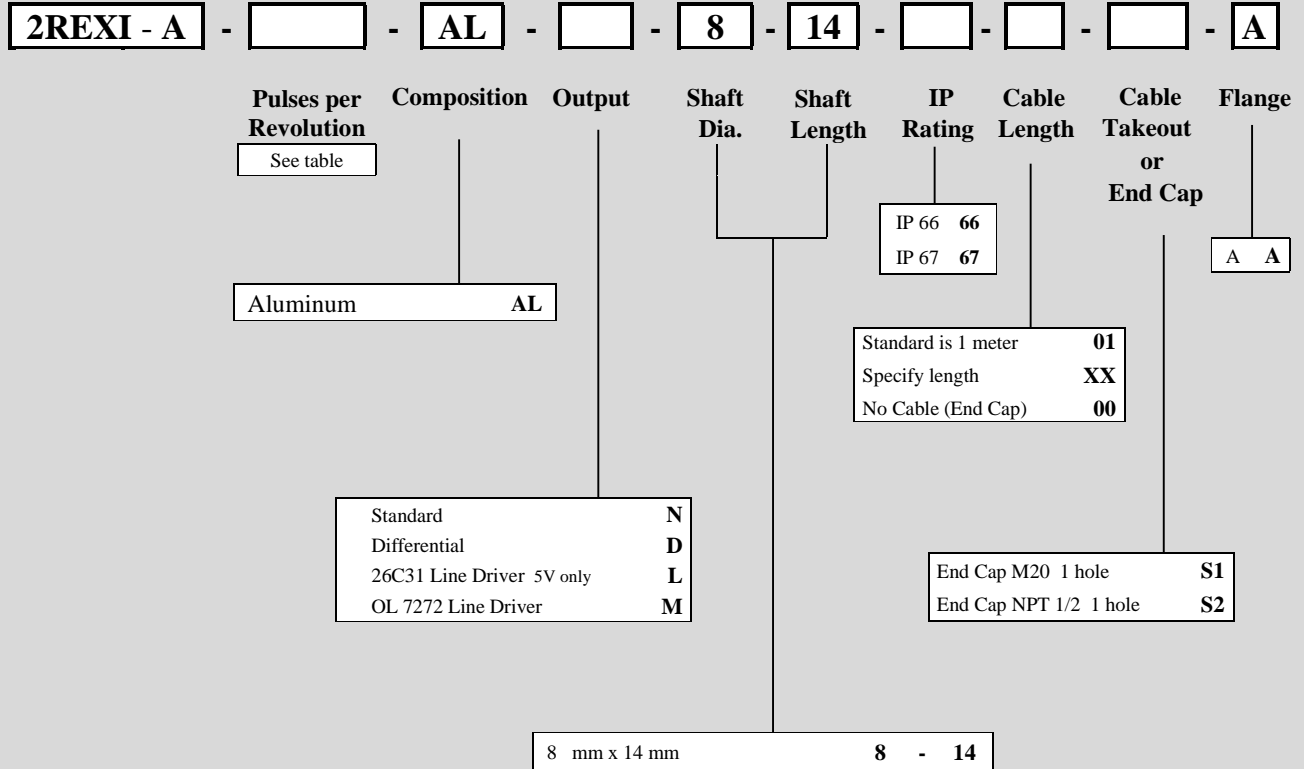


- 1 VDD
- 2 Channel A
- 3 Channel B
- 4 GND
- 5 REED 1
- 6 REED 2

## Ordering Code

Example: 2REXI - A - 1024 - AL - D - 8 - 14 - 67 - 01 - S1 - A

### Type



Other options on request:  
Please contact Scancon A/S