



## 2REX-A-AN with cable

- Shaft Encoder - Ø 68 mm
- Shaft: Ø 10 mm
- Current Output 0 – 20mA or 4 – 20mA
- Singelturn
- Non-removable end cap – delivered with cable
- ATEX, IECEx, EAC Ex certified

### Electrical Specifications

|                                     |                                                                                                                                                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Encoder Type:</b>                | Absolute Magnetic                                                                                                                                                                                          |
| <b>Resolution:</b>                  | 2 <sup>10</sup> (1024) points per revolution                                                                                                                                                               |
| <b>Supply Voltage:</b>              | 12 Vdc min. to 18 Vdc max. or<br>20 Vdc min. to 28 Vdc max.                                                                                                                                                |
| <b>Typical Current Consumption:</b> | 40 mA @ 20mA output current                                                                                                                                                                                |
| <b>Output Current:</b>              | 0 – 20 mA or 4 – 20 mA                                                                                                                                                                                     |
| <b>Accuracy:</b>                    | +/- 0,2% of full scale                                                                                                                                                                                     |
| <b>Output Format:</b>               | Full range output over one revolution<br>(360°) or over one half revolution<br>(180°)                                                                                                                      |
| <b>Current Sense Resistor:</b>      | Max. 400Ω – recommended 250Ω                                                                                                                                                                               |
| <b>Output Update Rate:</b>          | 2610 updates/sec. ~ 383μsec. per update                                                                                                                                                                    |
| <b>Electrical Protection:</b>       | Reverse polarity and output short circuit protected                                                                                                                                                        |
| <b>Noise Immunity:</b>              | EN61000-6-2: 2005 (industrial environments) Electromagnetic compatibility (EMC)<br>EN 61000-6-3: 2007 (residential, commercial, and light-industrial environments) for Electromagnetic compatibility (EMC) |

### Mechanical Specifications

|                                |                                                                                |
|--------------------------------|--------------------------------------------------------------------------------|
| <b>Material:</b>               | Housing: Aluminum<br>Cap: Aluminum<br>Shaft: Stainless Steel (AISI 303 or 316) |
| <b>Weight:</b>                 | Encoder: Approx. 540 gr (19 oz)<br>Cable: 50 gr / meter (1.76 oz / meter)      |
| <b>Bearing Life:</b>           | > 1.9 x 10 <sup>10</sup> revolutions at rated load                             |
| <b>Shaft Speed:</b>            | 3000 rpm continuous (max.) IP 67 T4                                            |
| <b>Starting Torque:</b>        | < 0.1 Nm (14.16 oz-in) at 25° C IP 67                                          |
| <b>Mass Moment of Inertia:</b> | 50 gcm <sup>2</sup> (7.08 x 10 <sup>-4</sup> oz-in-sec <sup>2</sup> )          |
| <b>Shaft Loads:</b>            | Axial 50 N (11.25 lbs) max.<br>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 64 / Nema 6 (approx.) option<br>IP 65 / Nema 4 (approx.) option<br>IP 66 / Nema 6 (approx.)<br>IP 67 / Nema 6 (approx.) option |

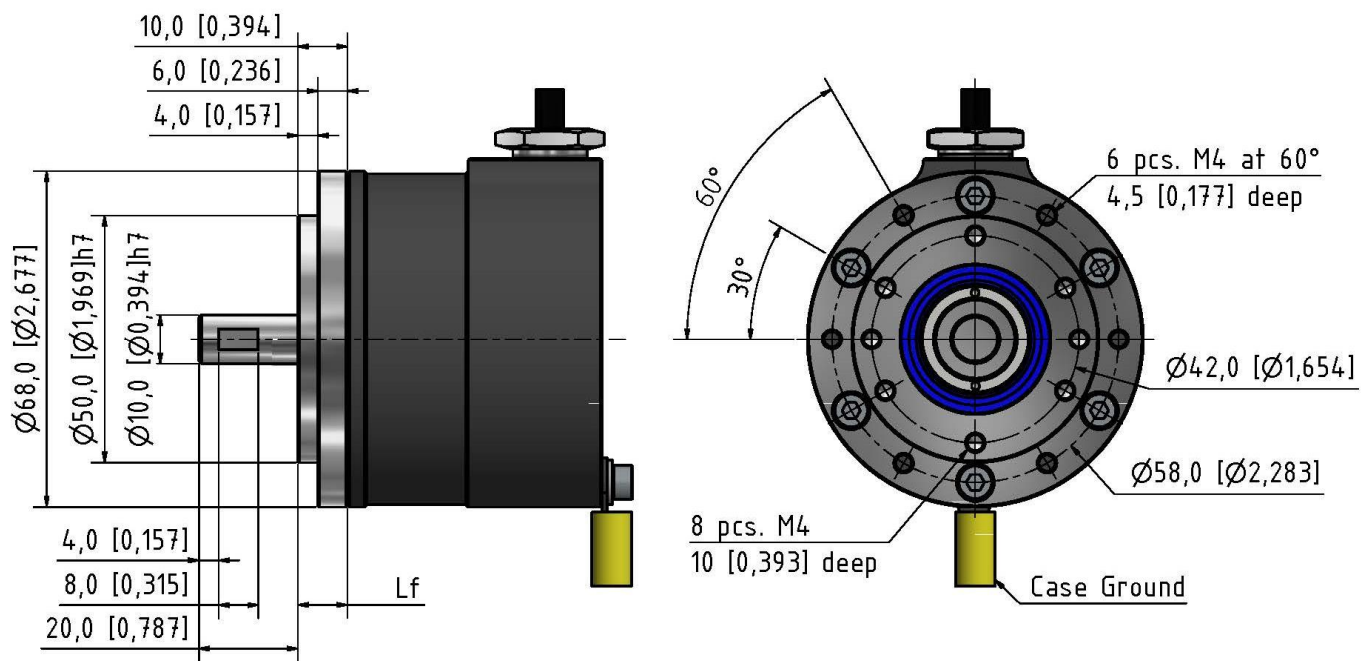
### Connection Options

|               |                                                                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cable:</b> | <b>MUD resistant (NEK 606) &amp; halogen free, shielded, OD Ø6.6 +/- 0.2 mm</b><br>4x2x0.14 mm <sup>2</sup> , 26 AWG, 4 twisted pairs;<br>See Table 1 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|

## Certifications

|                |                                                                                                                |
|----------------|----------------------------------------------------------------------------------------------------------------|
| <b>ATEX:</b>   | Certificate No.: ITS 09 ATEX 16847X<br>II 2 G Ex db IIC T5 II 2 D Ex tb IIIC T100°C Db -40°C<Tamb<+70°C        |
| <b>IECEX:</b>  | Certificate No.: IECEX ITS 10.0015X<br>Ex db IIC T5 Gb Ex tb IIIC T100°C Db -40°C < Tamb < +70°C               |
| <b>EAC Ex:</b> | НАННО «ІСВЭ» No. EAЭC RU C-DK.AA87.B.00266/19<br>1Ex db IIC T5 Gb X, Ex tb IIIC T100°C Db X, -40°C<T.amb<+70°C |

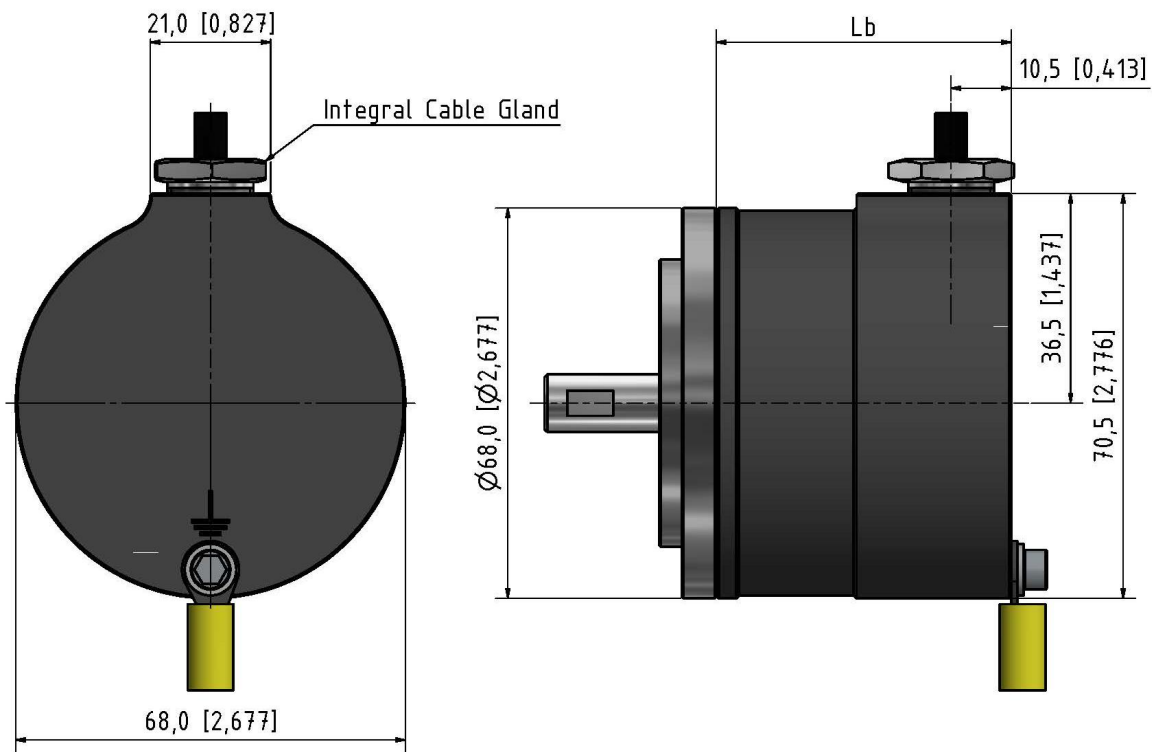
## Face mount



Face Mount A

mm (inches)

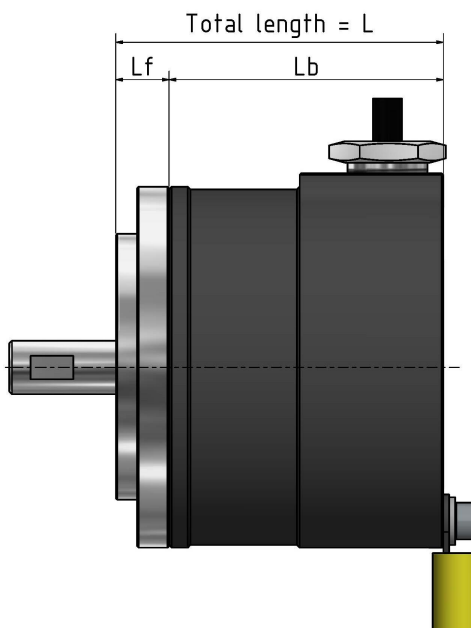
## Cap with Cable



Side Standard Cable Gland Cap (SS)

mm (inches)

## Encoder Length



**Total Encoder Length  $L = L_b + L_f$**

| Cap | Face mount A      |
|-----|-------------------|
| SS  | 61,5 mm (2,42 in) |

Cap + Face Mount = Total Encoder Length

**Table 1. Cable Output**

| Cable Connections |        |
|-------------------|--------|
| Wire Color        | Signal |
| Pink              | Iout   |
| Gray              | NC     |
| Green             | NC     |
| Yellow            | NC     |
| White             | NC     |
| Brown             | NC     |
| Red               | Vsup   |
| Blue              | GND    |

*Note: Ends of Unused Cores (N/C) are insulated by heat-shrink tubing acc. to EN 60079-14:2014, Section 16.2.2.5.3*

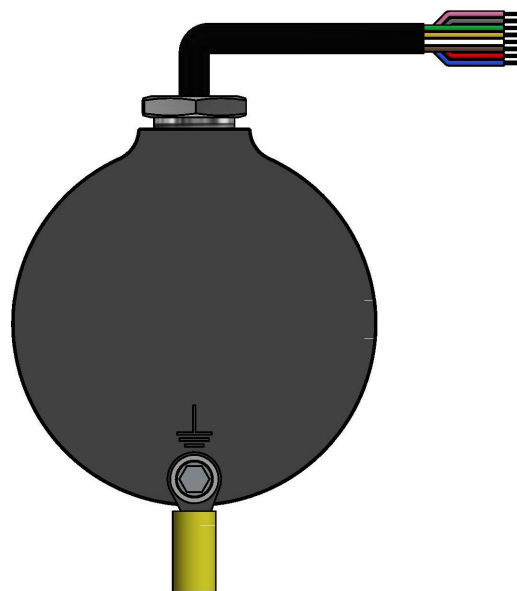
*Iout = Current Output*

*Vsup= Positive Supply Voltage*

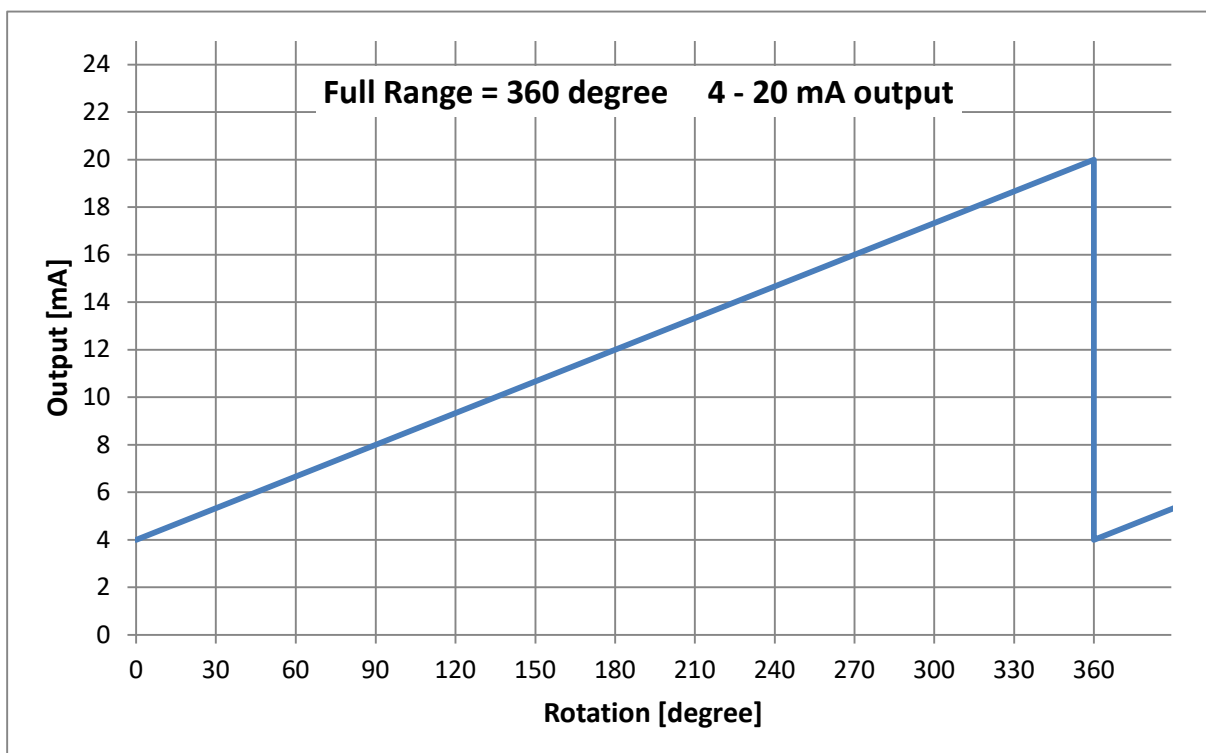
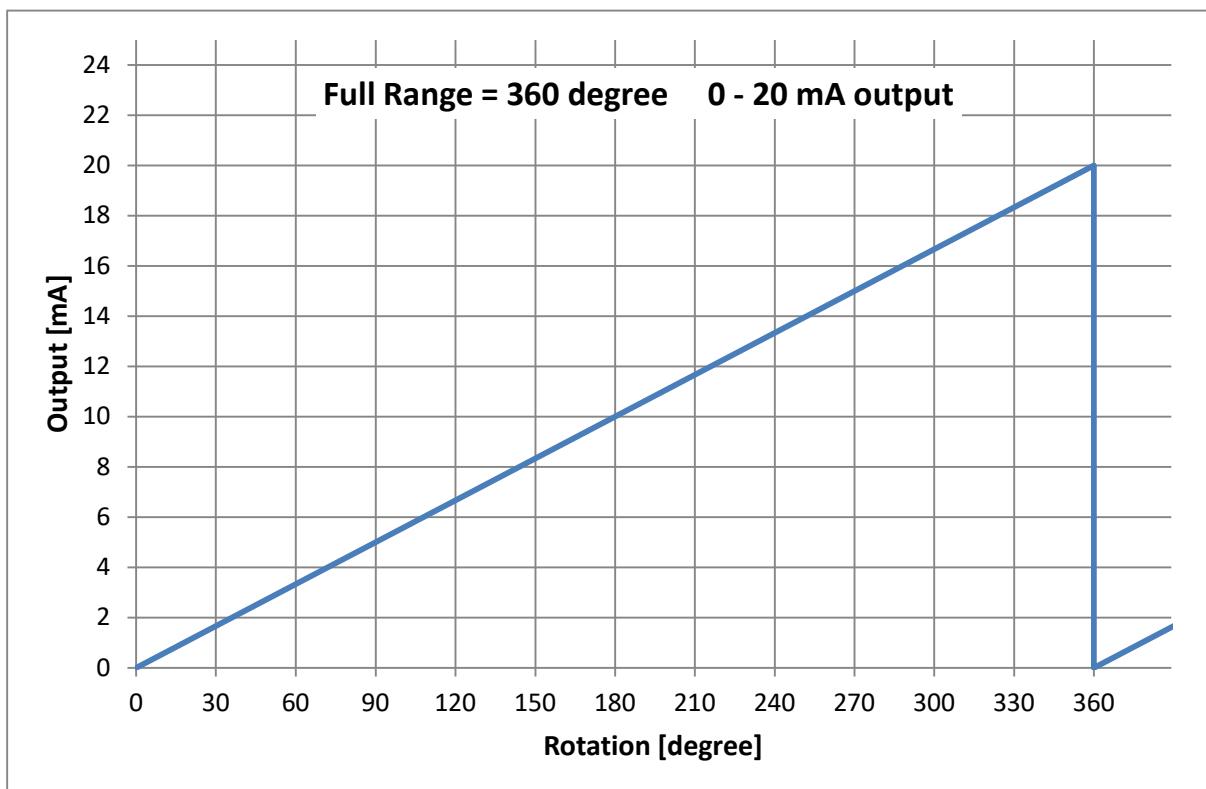
*GND = Circuit Ground*

*Shield connected to Case Ground*

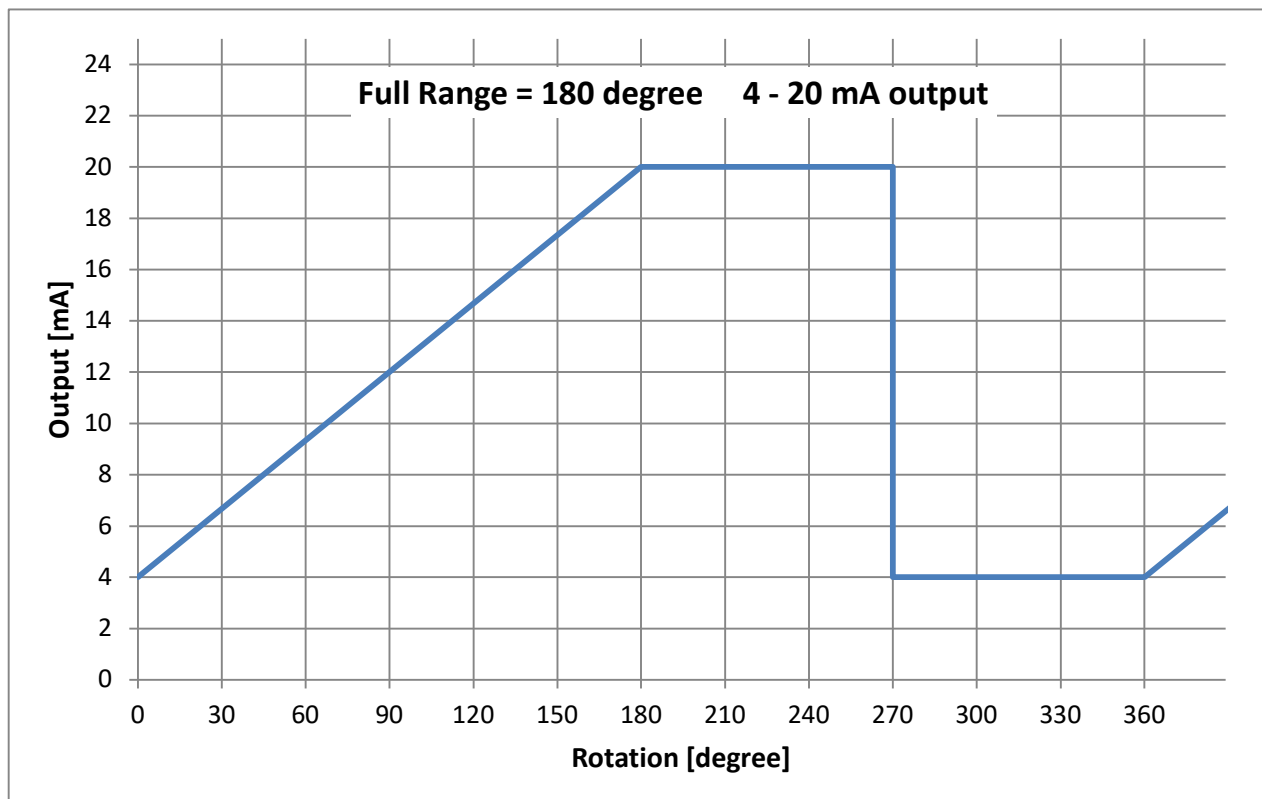
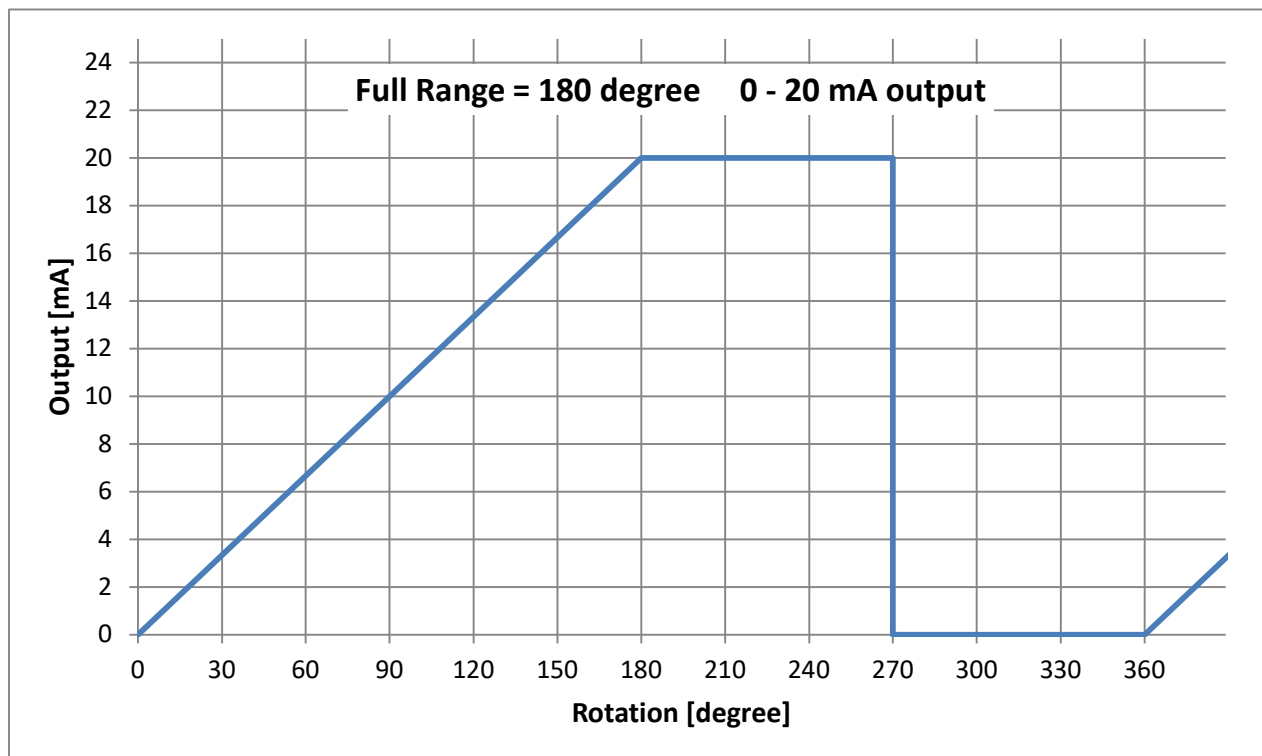
Cable: **MUD resistant (NEK 606) & halogen free, shielded**  
 4x2x0.14 mm<sup>2</sup>, 26 AWG, 4 twisted pairs, OD Ø6.6 +/- 0.2 mm;  
 Yellow cable shoe: AWG 12-10



## Output Wave forms



## Output Wave forms



### Ordering Code

**Example: 2REX-A-AN180-AL-C4-10-20-67-01-SS-A-00**

2REX-A -  - Al -  -  -  -  -  -  -  -  -

1                      2                      3                      4                      5                      6                      7                      8                      9                      10

### 1. Pulse per revolution

Full range over 36..... **AN360**

Full range over 180°..... **AN180**

## 2. Material

Aluminium.....Al

### 3. Output

Current 0 – 20mA..... **C0**

Current 4 – 20mA..... **C4**

#### 4 & 5. Shaft diameter

10 mm x 20 mm

4.

10

5.

20

## 6. IP Rating

IP 64..... **64**

IP 65..... 65

IP 66..... 66

|            |    |
|------------|----|
| IP 67..... | 67 |
|------------|----|

## 7. Cable Length

Standard cable is 1m..... 01

Specify length..... XX

## 8. Cable Takeout

Side (Standard)..... SS

## 9. Flange

Flange A ..... **A**

## 10. Accessory

No accessory..... 00