



## 2REX-A analog 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, UKEX 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 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 (360°) or over one half revolution (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) 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: Stainless Steel (AISI 303 or 316)
<b>Weight:</b>	Encoder: Approx. 540 gr (19 oz) 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. 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 IP 65 / Nema 4 (approx.) option IP 66 / Nema 6 (approx.) IP 67 / Nema 6 (approx.) option

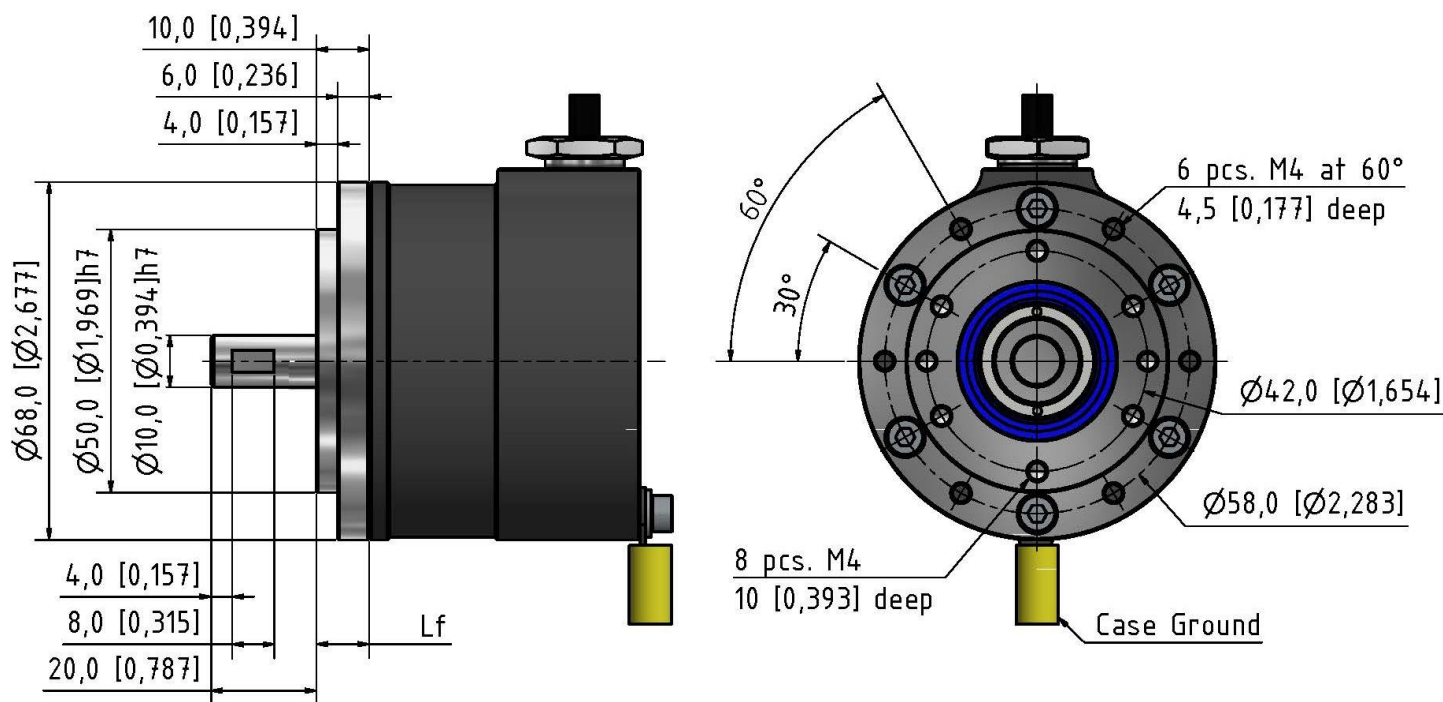
### Connection Options

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

<b>ATEX:</b>	Certificate No.: ITS 09 ATEX 16847X II 2 G Ex db IIC T5 Gb, II 2 D Ex tb IIIC T100°C Db -40°C<Tamb<+70°C
<b>IECEX:</b>	Certificate No.: IECEX ITS 10.0015X Ex db IIC T5 Gb, Ex tb IIIC T100°C Db -40°C < Tamb < +70°C
<b>UKEX</b>	Certificate No.: ITS21UKEX0407X II 2 G Ex db IIC T5 Gb, II 2 D Ex tb IIIC T100°C Db -40°C<Tamb<+70°C
<b>EAC Ex:</b>	N/A

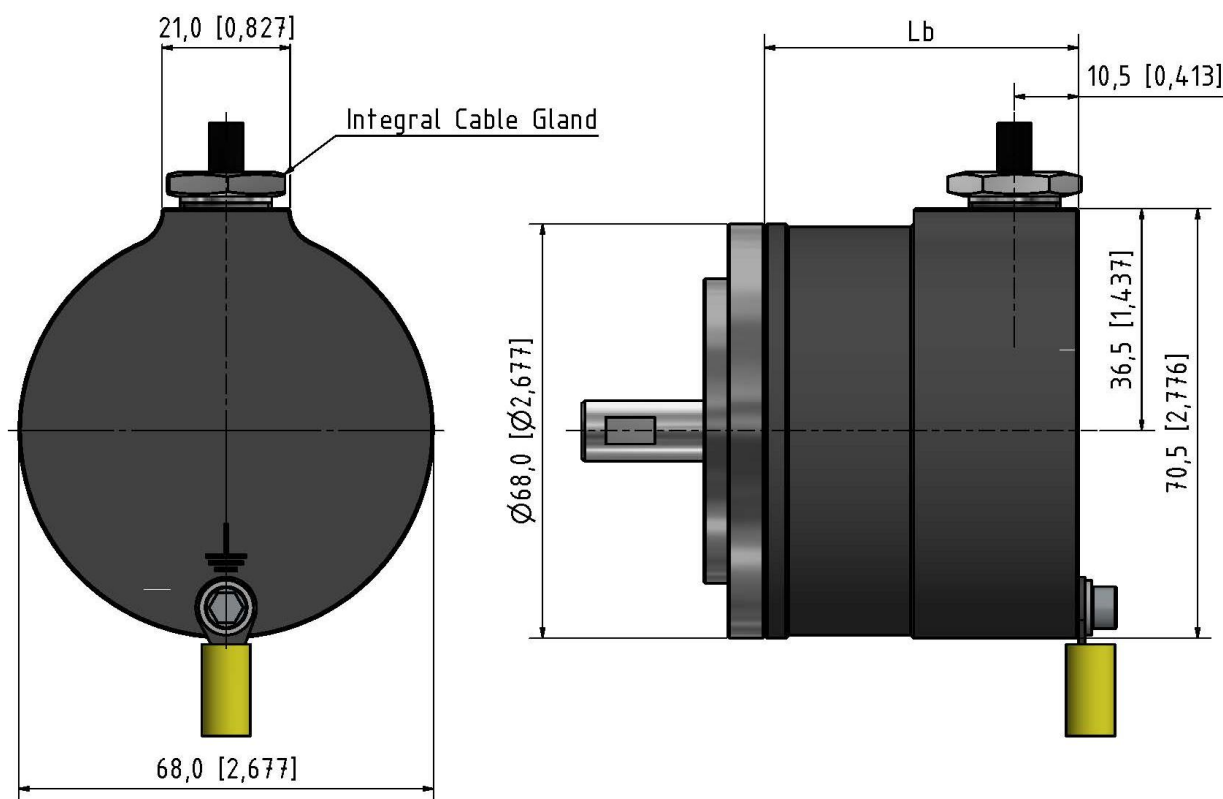
## Face mount



Face Mount A

mm (inches)

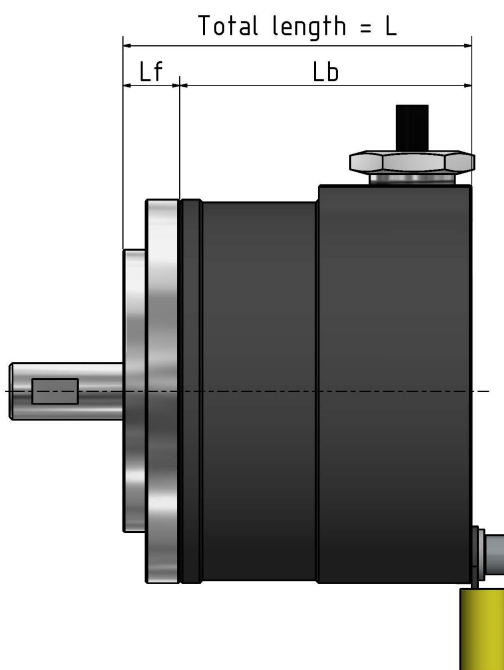
## Cap with Cable



Side Standard Cable Gland Cap (SS)

mm (inches)

## Encoder Length



$$\text{Total Encoder Length } L = L_b + L_f$$

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	N/C*
Green	N/C*
Yellow	N/C*
White	N/C*
Brown	N/C*
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*

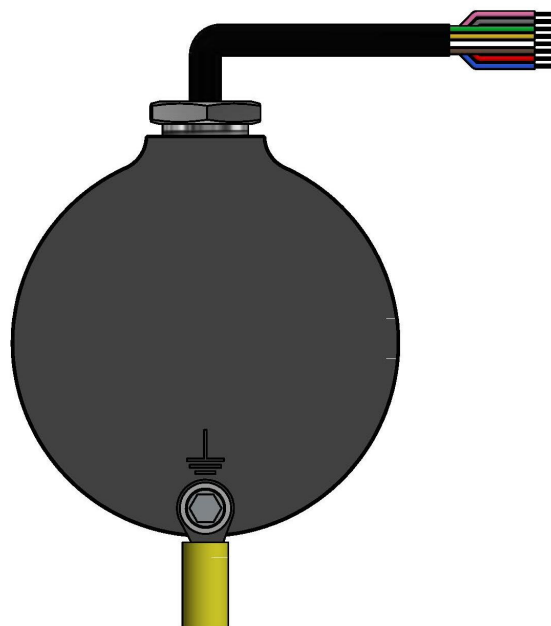
*Iout = Current Output*

*Vsup= Positive Supply Voltage*

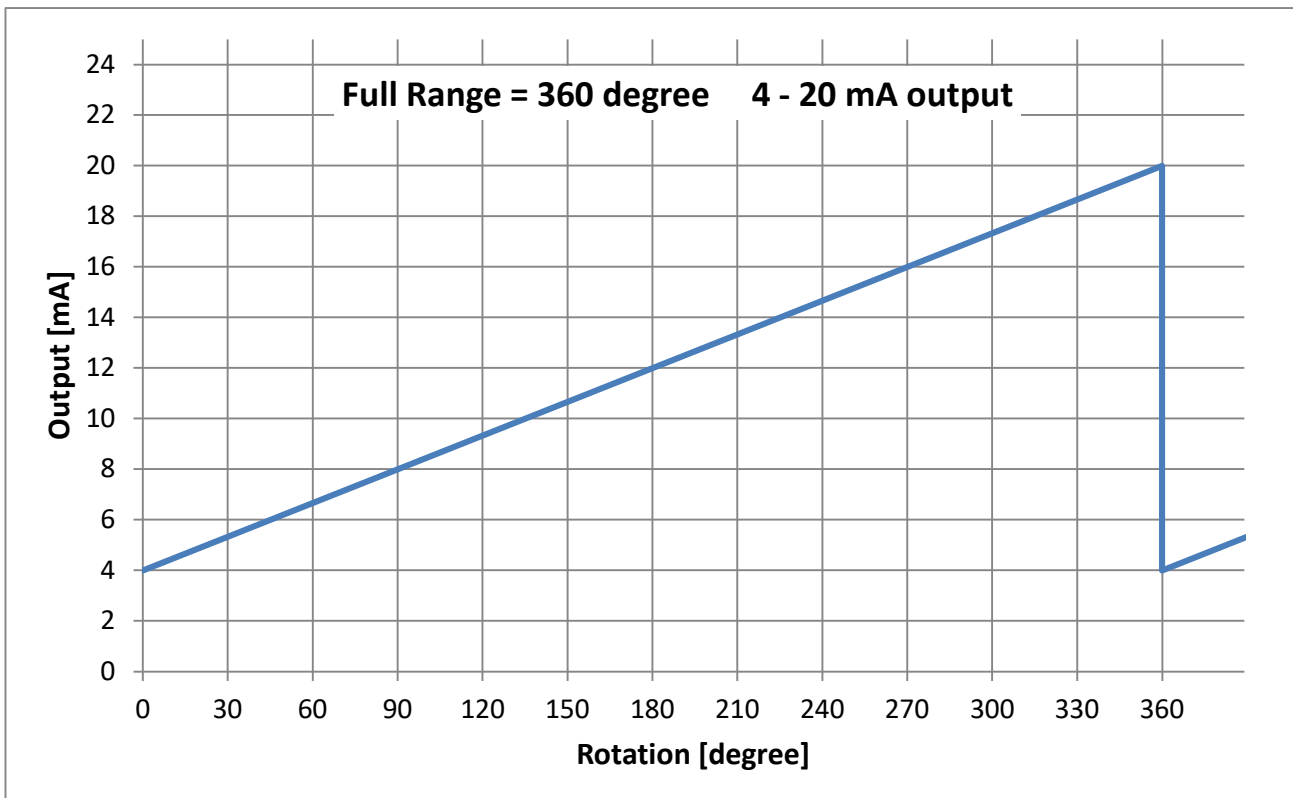
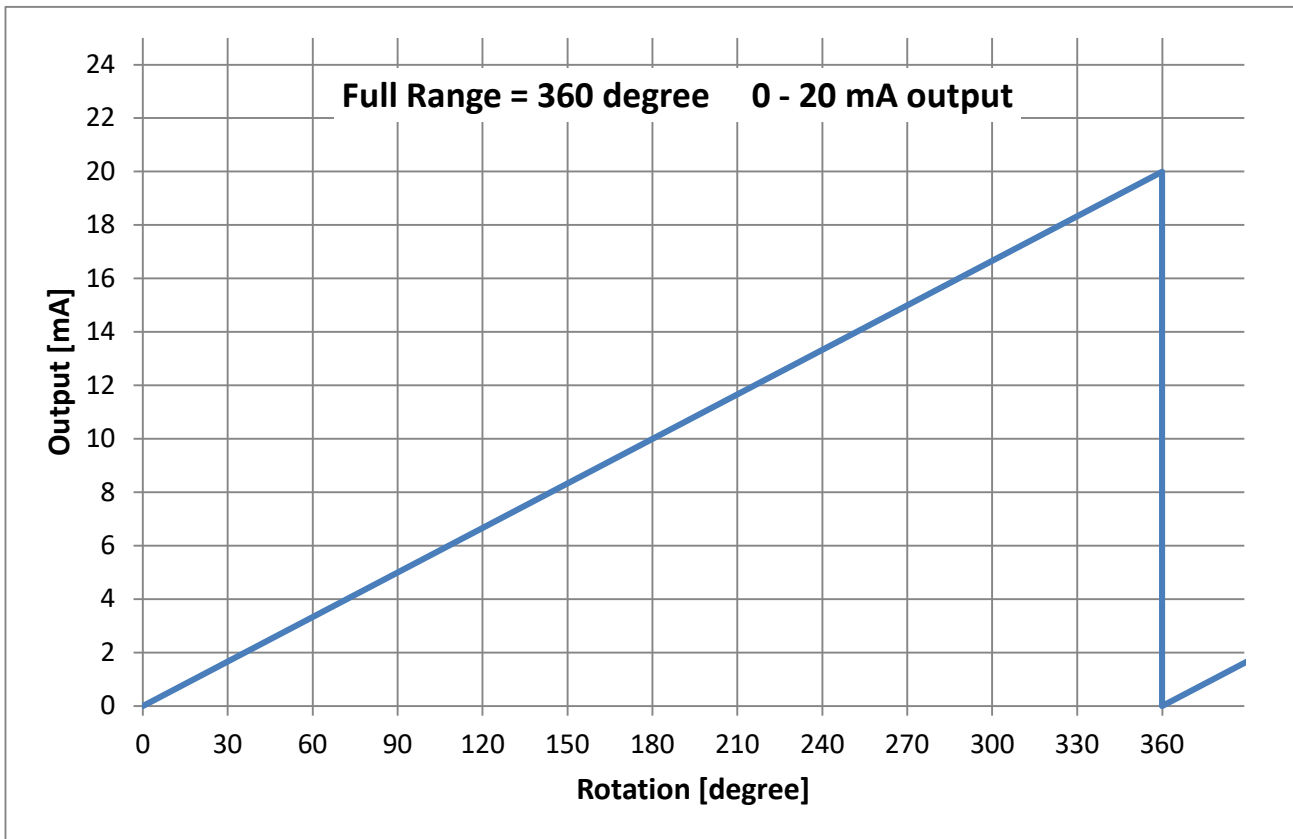
*GND = Circuit Ground*

*Shield connected to Case Ground*

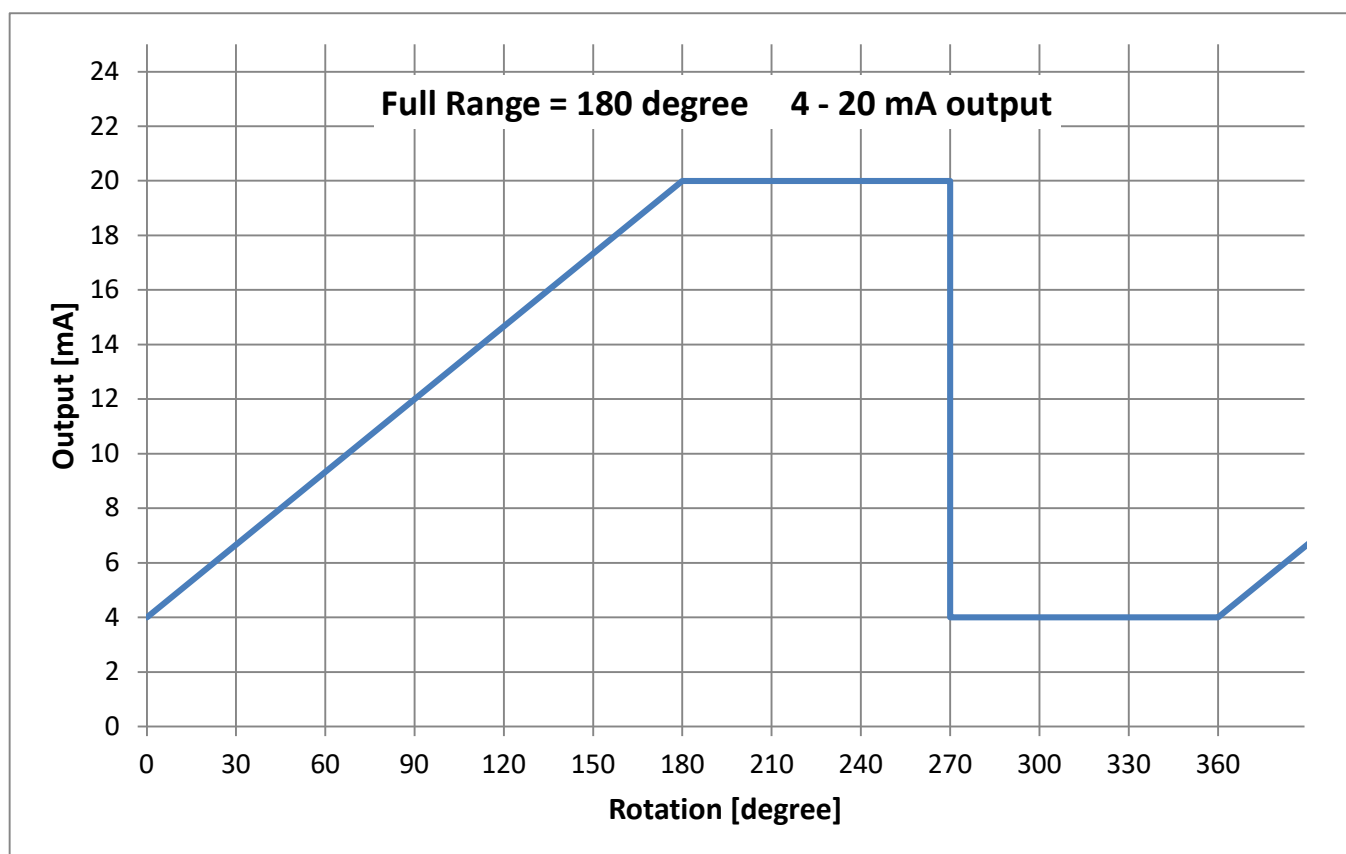
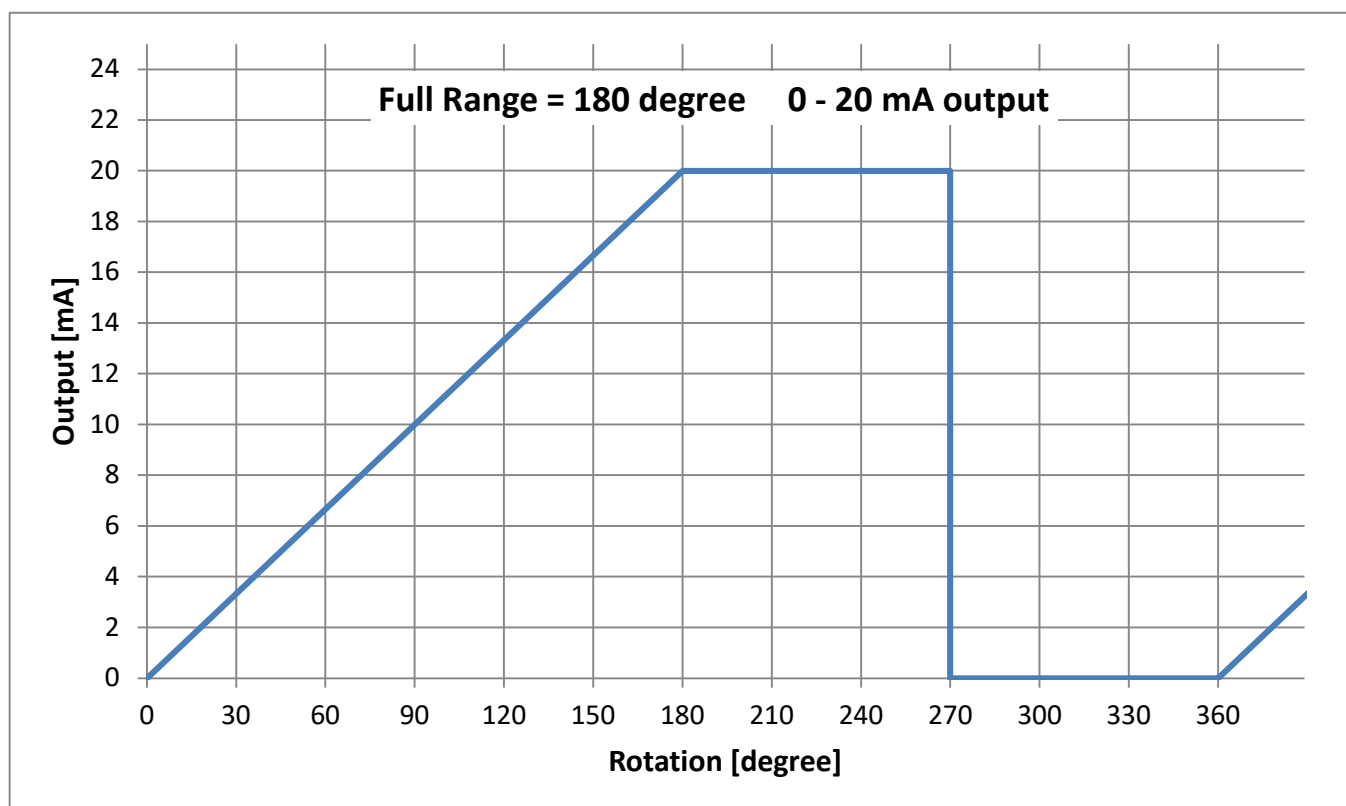
Cable: **MUD resistant (NEK 606) & halogen free, shielded**  
 4x2x0.14 mm<sup>2</sup>, 26 AWG, 4 twisted pairs, OD Ø6.6 +/- 0.2 mm;  
 Yellow cable shoe: AWG 12-10



## Output Wave forms



## Output Wave forms



## Ordering Code

Example: 2REX-A – 01C-180 – AL – 12C4 – 10 – 20 – 67 – 01 – SS – A – 00

-  -  -  -  -  -  -  -  -  -

### 1. Pulse per revolution

Full range over 360°..... **01C-360**

Full range over 180°..... **01C-180**

### 2. Material

Aluminium.....**Al**

### 3. Output

Current 0 – 20mA 12V.....**12C0**

Current 0 – 20mA 24V.....**24C0**

Current 4 – 20mA 12V.....**12C4**

Current 4 – 20mA 24V..... **24C4**

### 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**