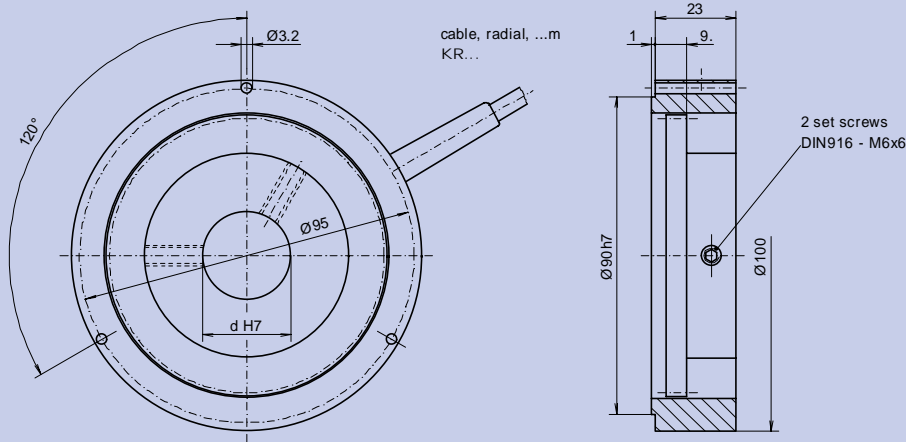
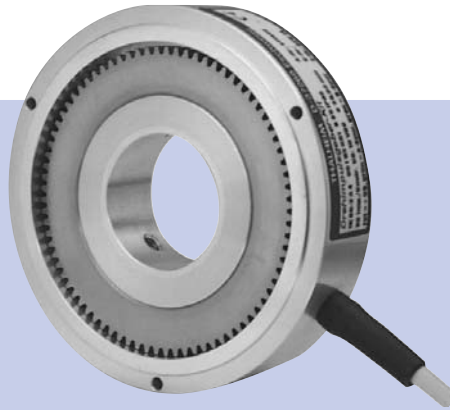


# Incremental encoder *Kit*

## IK 80-2 A 4

### Features

- Low-Cost incremental encoder-kit
- Hollow shaft diameter up to 50 mm
- flate design
- Centering seat Ø90, mounting punch circle Ø95
- Cable outlet radial



drawing-no.: 026-14

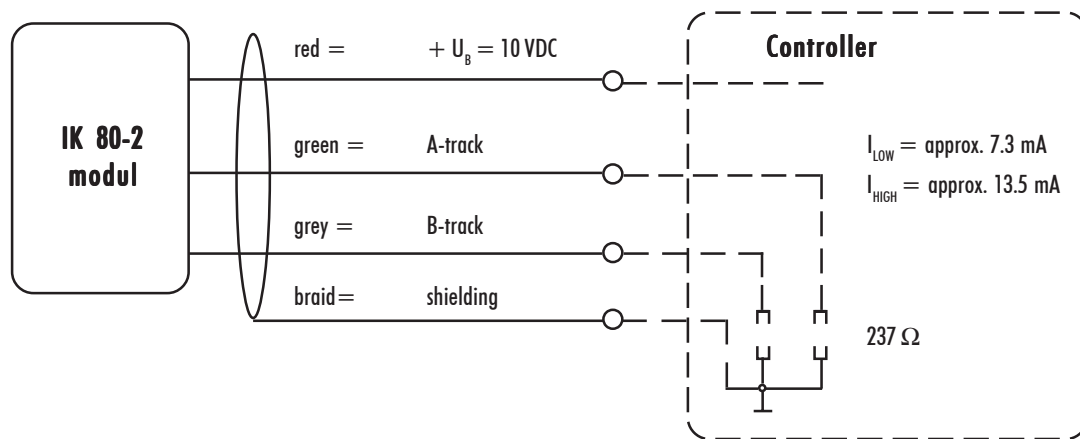
### Mechanical data

Design	A 4	A 4
Housing	aluminium, unpainted	
Protection	IP 66	(referenced to sealed-in electronic) according to DIN EN 60 529 <b>IP 66</b>
Construction principle	magnetical system with tooth wheel	
max. revolution (mechanical)	$n_{max} \leq 10000 \text{ rpm}$	(observe limit frequency)
Permissible motor-shaft play	axial $\leq 1.0 \text{ mm}$ radial $\leq 0.1 \text{ mm}$	
Vibration	55... 2000 Hz $\leq 100 \text{ m/s}^2$	according to DIN IEC 60 068, part 2-6
Shock	11 ms $\leq 1000 \text{ m/s}^2$	according to DIN IEC 60 068, part 2-27
Hollow shaft diameter	d 30	(standard) 15 mm to 50 mm possible <b>30</b>
Weight	housing ca. 270 g rotor ca. 210 g	

## Electrical data

Number of pulses	Z	80 pulses/revolution	XXXX
Electronic version (output signals)	current	supply voltage: $U_B = 10 \text{ VDC}$ (not polarity protected) output load current: $I_{\text{LOW}} = \text{ca. } 7.3 \text{ mA at } R_L = 237 \Omega$ $I_{\text{HIGH}} = \text{ca. } 13.5 \text{ mA at } R_L = 237 \Omega$	I
Output signals	A, B	2 square wave pulse trains, electr. phase shifted $90^\circ$ *	BX
Pulse ratio		pulse : pause = 1 : 1	
Limit frequency	$f_G$	25 kHz	
Output load current	$I_{\text{Load}}$	$\leq 16 \text{ mA}$ (per track)	
Type of connection		cable, radial, 1.0 m (standard length)	KR1
Operating temperature		$-20^\circ \text{C}$ to $+85^\circ \text{C}$	S
Permissible relativ humidity		$\leq 90 \%$ (condensation not permitted)	

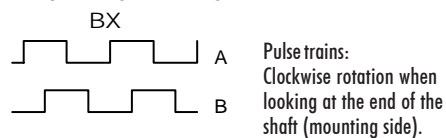
## Schematic circuit diagram



## Connection table

wire color	signals
green	A
grey	B
red	+ $U_B$
transparent	shielding (not connected with housing)

## Output signal diagram



## Ordering example

<b>IK 80-2</b>	<b>A 4</b>	<b>80</b>	<b>I</b>	<b>BX</b>	<b>KR1</b>	<b>S</b>	<b>30</b>	<b>IP66</b>	
Incremental encoder IK 80-2	Design A 4	Number of pulses 80 pulses/revolution	Electronic version $U_B = 10 \text{ VDC}$ /current signals	Output signals A-, B-track	Type of connection cable, radial, 1 m	Operating temperature $-20^\circ \text{C}$ to $+85^\circ \text{C}$	Hollow shaft diameter 30 mm	Protection IP66	Attachment kit variant

\* ref. output signal diagram