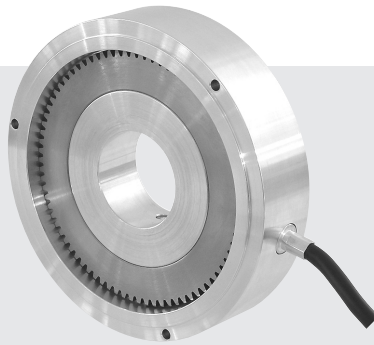
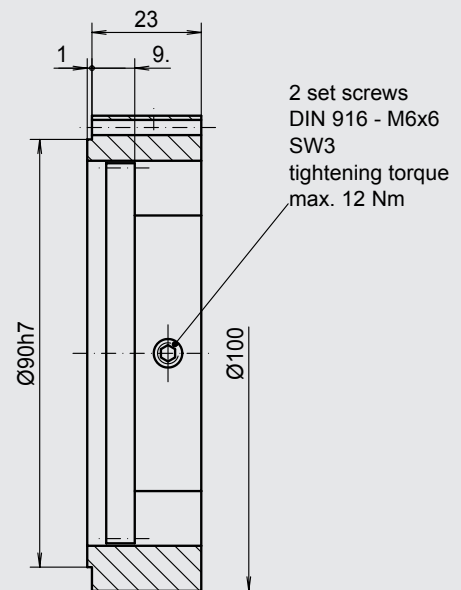
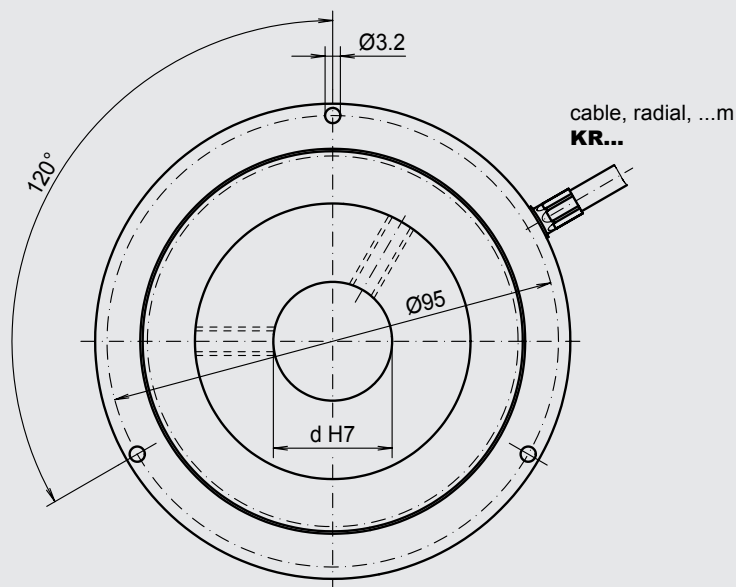


Incremental encoder Kit



Features

- Low-cost incremental encoder-kit
- Hollow shaft diameter up to $\varnothing 50$ mm
- flange design
- Centering seat $\varnothing 90$ mm, mounting punch circle $\varnothing 95$ mm
- Cable outlet radial



drawing-no.: 026-14

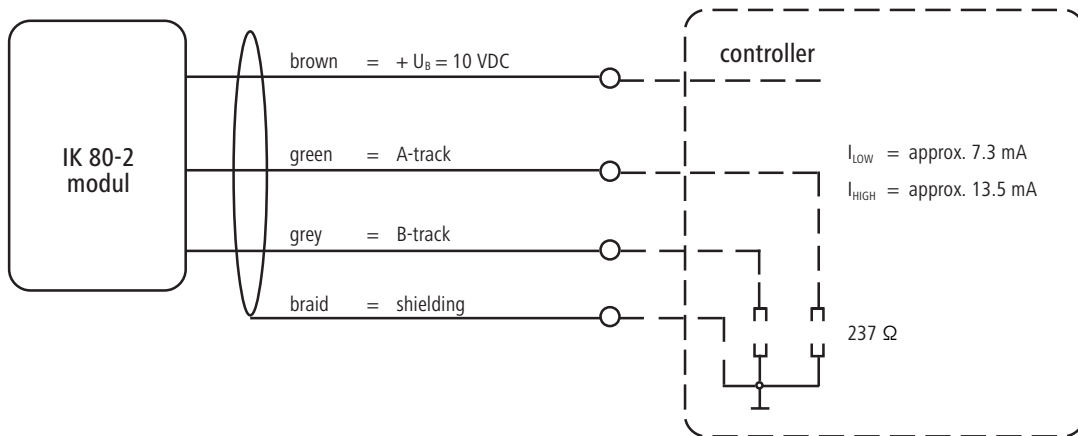
Mechanical data

Design	A 4	without bearings	A 4
Housing	aluminium, unpainted		
Protection	IP 66	(referenced to sealed-in electronic) according to DIN EN 60 529	IP66
Construction principle	magnetical system with tooth wheel		
max. revolution (mechanical)	$n_{\max} \leq 10\,000 \text{ min}^{-1}$	(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 mm	(standard), 15 mm to 50 mm possible	30
Weight	housing approx. 270 g rotor approx. 210 g		

Electrical data

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

Schematic circuit diagram

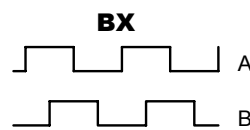


Connection table

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

Old wire color until July 2009

Output signal diagram



Pulse trains:
Clockwise rotation when
looking at the end of the
shaft (mounting side)

Ordering example:

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

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