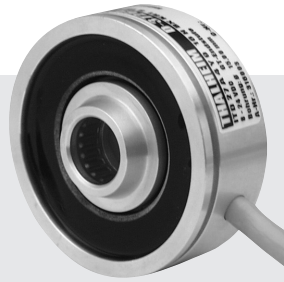
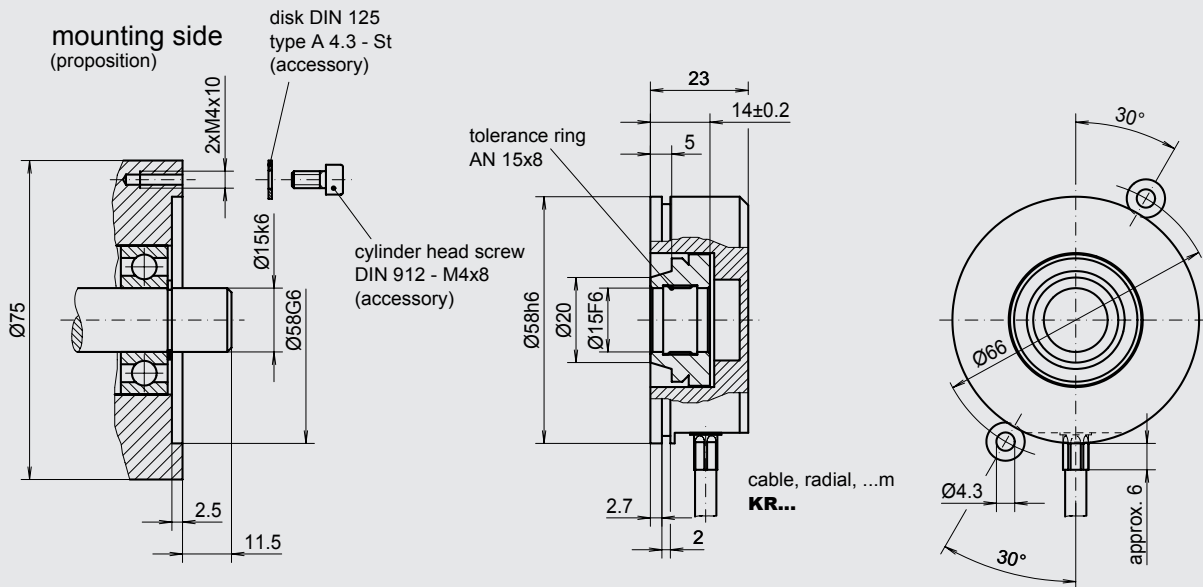


Incremental encoder with magnetic scanning



Features

- Low cost hollow shaft incremental encoder, with magnetic scanning
- Shaft fastening by tolerance ring
- HTL- output signals
- Cable outlet radial
- Sealed-in electronic



drawing-no.: 028-12 Y 9

Mechanical data

Design	A 4	A 4
Housing	aluminium, unpainted	
Protection	IP 66	(referenced to sealed-in electronic) according to DIN EN 60 529 IP66
Construction principle	pole ring with magnetic scanning	
max. revolution (mechanical)	$n_{\max} \leq 8000 \text{ min}^{-1}$	
Permissible motor-shaft play	axial $\leq 0.25 \text{ mm}$ 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 15 mm	15
Weight	approx. 300 g	

Electrical data

Number of pulses	Z 1, 4, 8, 16, 20, 32 pulses/rev.	XXXX
Electronic version (output signals)	HTL Push pull-output stage (short-circuit proof), supply voltage: $U_B = 8 - 26$ VDC (polarity protected), output amplitude: $U_{LOW} \leq 1.5$ V, $U_{HIGH} \geq U_B - 3$ V	H
Output signals	A 1 square wave train	AX
Output load current	$I_{load} \leq 20$ mA (per track)	
Current consumption (no load)	$I_{max} \leq 20$ mA	
Permissible cable length	≤ 15 m (Baumer Thalheim cable)	
Type of connection	cable, radial, 1.0 m (standard length)	KR1
Operating temperature range	-20 °C to +85 °C	S
Permissible relative humidity	≤ 90 %	

Options

Output signals	A, B 2 square wave pulse trains, electr. phase shifted 90°	BX
Type of connection	connector performed at cable, (ref. data sheet »Type of performed cables«)	...

Connection table

wire color	signals
green	A
grey	B
brown	+ U_B
white	0 V
transparent	shielding/housing

Output signal diagram



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

Ordering example:

ITD 27	A 4	Y 9	16	H	BX	KR1	S	15	IP66	
Incremental encoder ITD 27	Design A 4	Mechanical variant <i>Y 9 = look at the drawing</i>	Number of pulses 16 pulses/revolution	Electronic version $U_B = 8 - 26$ VDC HTL	Output signals A; B-track	Type of connection cable, radial, 1 m	Operating temperature range -20 °C to +85 °C	Hollow shaft diameter 15 mm	Protection IP66	Attachment kit variant

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