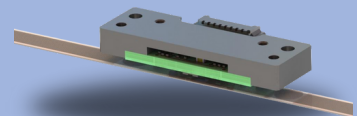
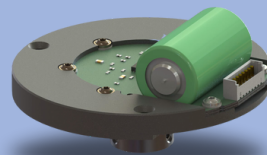
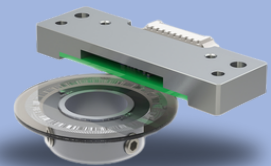
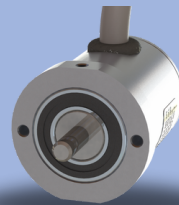
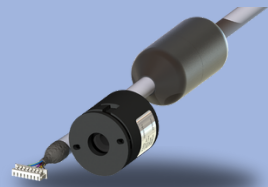




PRODUCT CATALOG



Automated motions

and precision to the point.

WE SUCCESSFULLY GET MANUFACTURING TECHNOLOGY & DIGITIZATION MOVING.

PWB encoders is a manufacturer of mini encoders, code disks, code scales and customized motor encoder systems. The products are used in many industries and application areas in millions of units – from robotics to medical technology and automotive to optoelectronics. PWB encoders GmbH is a leading, German company that can offer innovative solutions based on many years of experience and expertise with its own development and production.



The company with the main location in Eisenach/Thuringia and the development office in Berkatal/Hesse was founded in 2009. PWB encoders stands at the side of the customer. The complete know-how of a strong team expands the limits for the use of encoders and code disks. What can we currently help you with successfully?

about us:

- in-house development & production
- individualized solutions & development projects
- climate-controlled clean rooms
- owner of several patents & protected engineering processes
- collegial corporate structure

— “

New products are always successful when they offer solutions that the market has been waiting for.

— ” —

Product ranges:

- encoder
 - optical, magnetic, inductive
 - incremental or absolute
- encoder discs
- encoder scales
- KIT & Linear Encoder
- customized solutions

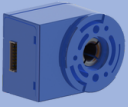
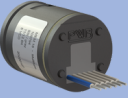

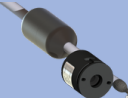
CATALOG OVERVIEW

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hollow shaft encoder - optical incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	AE 30	31	100 - 5000	2.0 - 8.0	2/3/4/6	5
	AE 30 F	31	100 - 5000	2.0 - 8.0	2/3/4/6	5
	AE 30 VX	31	100 - 5000	2.0 - 8.0	4	8 - 30
	EBG 38	38	250 - 4096	3.0 - 10.0	6	5/8 - 30
	ME 16	16	36 - 230	1.5 - 3.175	1/2	5
	ME 22	22	1 - 360	1.5 - 8.0	2/4	5
	MEC 22	22	500 - 2048	1.5 - 8.0	2/3	5
	MEC 22 HR	22	2000 - 8192	1.5 - 9.52	2/3	5
	MEHR 25 C	25	to 12000	4.0/6.0	6	5
	MEHR 25 H	25	to 12000	4.0/6.0	6	5
	MES 25 C	25	250/256	4.0 - 6.0	Sin / Cos	5
	MES 25 H	25	250/256	4.0 - 6.0	6	5



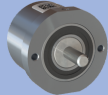
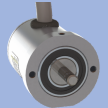
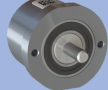
hollow shaft encoder - magnetic absolute

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	AEM 30	31	to 36 bit	4.0 - 6.35	SSI, BiSS, SPI	5 / 8 - 24
	MEM 16 M	16	to 45 bit	1.5 - 3.175	SSI, BiSS, SPI	5
	MEM 22 AE	22	12 bit	2.0 - 8.0	SSI, BiSS, SPI	5 / 8 - 30
	MEM 22 M	22	to 38 bit	2.0 - 8.0	SSI, BiSS, SPI	5


hollow shaft encoder - magnetic incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	MEM 16 IE	16	1 - 1024	1.5 - 3.175	2 / 3	5
	MEM 20	22	64	3.0	2	5
	MEM 22 IE	22	1 - 1024	2.0 - 8.0	3 / 6	5 / 8 - 30
	MEM 25 C	25	1 - 1024	2.0 - 6.0	3	5 / 8 - 30
	MEM 25 H	25	1 - 1024	2.0 - 6.0	3	5 / 8 - 30

shaft encoder - optical incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	ME 22 S	22	4.0 - 6.0	1 - 360	2	5
	MEHR 25 K	25	to 12000	4.0 - 6.0	6	5
	MEHR 25 S	25	to 12000	4.0 - 6.0	6	5
	MES 25 K	25	250 / 256	4.0 - 6.0	6	5
	MES 25 S	25	250 / 256	4.0 - 6.0	6	5


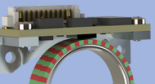
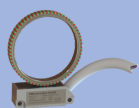
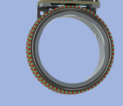
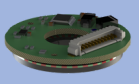
shaft encoder - magnetic incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	MEM 25 K	25	1 - 1024	2.0 - 6.0	3	5 / 8 - 30
	MEM 25 S	25	1 - 1024	2.0 - 6.0	3	5 / 8 - 30

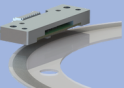
KIT systems - optical absolute

Product image	Product name	Outer diameter (mm)	Resolution	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	ABG 26	26	13 / 16 / 18	10	SSI, BiSS, SPI	5
	ABG 69	69	13 / 16 / 18	30	SSI, BiSS, SPI	5
	ABG 138	138	13 / 16 / 18	100	SSI, BiSS, SPI	5

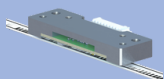
KIT systems - magnetic absolute

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	AS 25	24.5	to 65536 + 18 bit	10 / 14 / 20	SSI, BiSS, SPI	5 / 8 - 30
	AS 25 M	24.5	to 65536 + 18 bit	10 / 14 / 20	SSI, BiSS, SPI	5
	AS 50	50.7	to 65536 + 18 bit	39.5 / 44.0	SSI, BiSS, SPI	5 / 8 - 30
	AS 50 M	50.7	to 65536 + 18 bit	39.5 / 44.0	SSI, BiSS, SPI	5
	ASA 25	34.3	to 65536 + 18 bit	11	SSI, BiSS, SPI	5

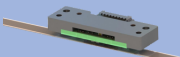
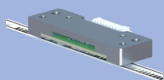
KIT systems - optical incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Supply voltage (VDC)
	EBG 30	30	to 102400	10	6	5
	EBG 132	132	to 500000	100	6	5

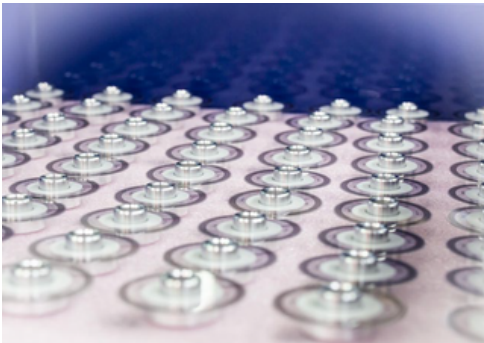
linear encoder - optical absolute

Product image	Product name	Measuring length (mm)	Step size (μm)	Channels	Supply voltage (VDC)
	ABG Head Linear	800	16	SSI, BiSS, SPI	5

linear encoder - optical incremental

Product image	Product name	Measuring length (mm)	Step size (μm)	Channels	Supply voltage (VDC)
	EBG Head Linear	500	to 0.8	6	5
	EBS Head Linear	200	20	Sin / Cos	5

encoder discs and encoder scales production



We produce transmissive and reflective encoder discs based on film and polycarbonate. We achieve resolutions of up to 1270 lpi and achieve tolerances of less than 1 μm for the bar-to-window ratio (optical) or $< 10 \mu\text{m}$ (mechanical - concentricity of inner hole to data track). These results speak for a technologically and production-wise high standard of our products.

Whether as a prototype, in small series or in mass production - we manufacture according to your requirements. By using double-sided adhesive foils, stabilizer discs and hubs, we expand the use of our encoder discs and thus enable our customers to install them more easily.

General key data of our encoder discs:

Resolution (lpi) max.: 1270
concentricity (mm): 0.0150
Eccentricity (mm): 0.0075
Bar/window (mm): ± 0.002
Pitch (mm): ± 0.001

Our products are produced according to current environmental standards and are also RoHS and REACH compliant.



customized solutions

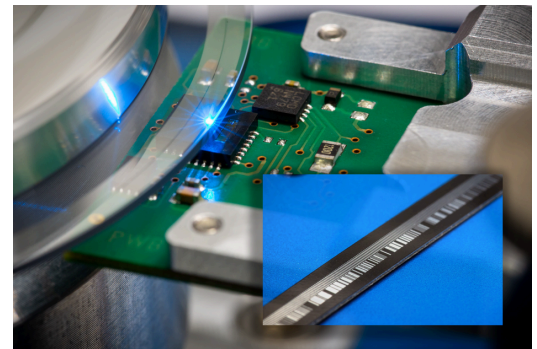
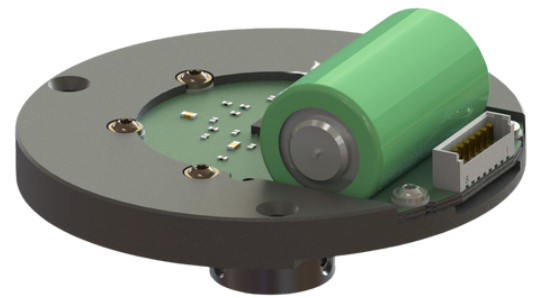
Customized encoders - individual solutions & developments

Committed support in the concrete implementation of successful encoder solutions and concepts and close, dedicated dialog with you as our customer: For PWB encoders GmbH, this is competent customer service.

Our integral service concept:



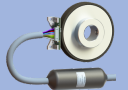
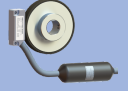
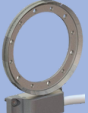
- Needs analysis & analysis of the problem
- Solution concepts and product development
- Worldwide logistics
- After-sales & technical support
- Permanent consistent optimization & innovation

PWB encoders GmbH - your competent and reliable partner in the world of motion control



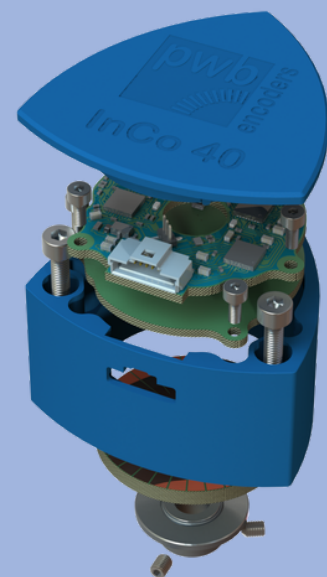


our product innovations

Product image	Product name	Technology	Scanning	Channels	Resolution	Outer diameter (mm)	Shaft diameter (mm)	Supply voltage (VDC)
	InCo 40 I	inductive	incremental	6	8192 ppr	47	6	5
	InCo 40 A	inductive	absolute singleturn	SSI, BiSS, SPI	18 bit	47	6	5
	IMEA 64	magnetic	absolute multiturn	SSI, BiSS	18 bit	64	57,4	5
	IMEA 64	magnetic	absolute multiturn	SSI, BiSS	18 bit	64	57,4	5
	OREA 74	optical	absolute singleturn	SSI, BiSS, SPI	18 bit	74	55	5

In December 2023, we added an inductive encoder to our portfolio. You too can benefit from inductive technology:

- No susceptibility to foreign bodies and dirt
- Insensitive to magnetic interference (e.g. brakes)
- Reliable and precise
- Robust
- High resolution
- Application in machine tools, medical equipment, aerospace technology, gimbal systems and defense technology



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