



PRODUCT CATALOGUE



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We successfully set production technology & innovation in motion.



Our team



Our encoders

PWB encoders GmbH is a German company specialising in the development, manufacture and sale of high-quality miniature encoders, encoder discs, encoder rulers and customised motor encoder systems.

Encoders from PWB encoders are used as measurement sensors for rotational speed and speed, motor feedback and linear movements. The main areas of application are electric drives for medical technology, robotics, packaging technology, measurement technology and automation of all kinds.

Our strength lies in the professional development of our own and customised products as well as in our excellent service for our customers.

In case our standard products do not optimally cover an application, PWB encoders is happy to work with its customers to develop customised solutions that optimally meet their requirements and wishes.



Our clean room

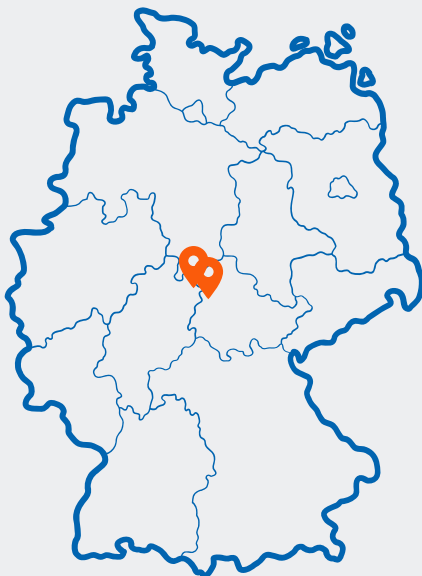


Our production

PWB - precision works better

Our motivation is to integrate the latest technologies into the functionality of our products and to give them a perfect design for a wide range of industries and applications. In this way, we want to make a contribution to the success of our customers. Because we can only be sustainably successful if our customers are. Competent, personalised advice from person to person and collegial cooperation with our business partners are the cornerstones of our continuous growth.

Made in Germany and therefore compliance with the highest quality standards is a high priority at PWB encoders. Our products are developed and manufactured in Germany and are used successfully all over the world. Our processes are continuously reviewed and optimised to ensure first-class product quality and excellent customer service. Certification in accordance with DIN ISO 9001:2015 is a fundamental requirement for us.



Our locations

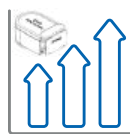
The company, which is based in Eisenach/Thuringia and has a development office in Berkatal/Hesse, was founded in 2009. PWB encoders provides customers with advice and support. With the entire know-how of a strong team, the limits for the use of encoders and encoder discs are extended.

In which areas can we currently support you successfully?

About us:



Competent encoder manufacturer for customised solutions



Leading mini encoder manufacturer in Europe



European market leader for polyester film encoder discs



Privately run company



Specialist for high-end technological products


Hollow shaft encoders

optical incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Power supply (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	up to 12000	4.0 / 6.0	6	5
	MEHR 25 H	25	up to 12000	4.0 / 6.0	6	5
	MEHR 25 Y01	25	up to 1024	6.0	3	5 / 8 - 30
	MES 25 C	25	250 / 256	4.0 / 6.0	6 Sin / Cos	5
	MES 25 H	25	250 / 256	4.0 - 6.0	6 Sin / Cos	5





Hollow shaft encoders

magnetic absolute

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



Hollow shaft encoders

magnetic incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Power supply (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 encoders

optical incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Power supply (VDC)
	GEO 24	24	360	4.0	2	8 - 24
	ME 22 S	22	1 - 360	4.0 - 6.0	2	5
	MEHR 25 K	25	up to 12000	4.0 - 6.0	6	5
	MEHR 25 S	25	up to 12000	4.0 - 6.0	6	5
	MES 25 K	25	250 / 256	4.0 - 6.0	6 Sin / Cos	5
	MES 25 S	25	250 / 256	4.0 - 6.0	6 Sin / Cos	5

Shaft encoders

magnetic incremental

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Power supply (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






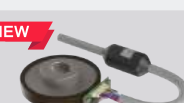
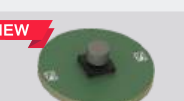
KIT encoder systems

optical absolute

Product image	Product name	Outer diameter (mm)	Resolution (Bit)	Shaft diameter (mm)	Channels	Power supply (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 encoder systems

magnetic absolute

Product image	Product name	Outer diameter (mm)	Resolution (ppr)	Shaft diameter (mm)	Channels	Power supply (VDC)
	AS 25	24.5	up to 65536 + 18 Bit	10 / 14 / 20	SSI, BiSS, SPI + 6 incr.	5 / 8 - 30
	AS 25 M	24.5	up to 65536 + 18 Bit	10 / 14 / 20	SSI, BiSS, SPI + 6 incr.	5
	AS 50	50.7	up to 65536 + 18 Bit	39.5 / 44.0	SSI, BiSS, SPI + 6 incr.	5 / 8 - 30
	AS 50 M	50.7	up to 65536 + 18 Bit	39.5 / 44.0	SSI, BiSS, SPI + 6 incr.	5
	ASA 25	34.3	up to 65536 + 18 Bit	11	SSI, BiSS, SPI + 6 incr.	5
 NEW	IMEA 64	64	up to 42 Bit	17,0 / 50,0 / 57,8	SSI, BiSS	5
 NEW	WEM 20	20	14 Bit	6	SSI, BiSS	5

KIT encoder systems

optical incremental

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

Linear encoders

optical absolute

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


Linear encoders

optical incremental

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

Linear encoders

magnetic absolute

Product image	Product name	Measuring length (mm)	Step size (µm)	Channels	Power supply (VDC)
	PALM Head	80	312	SSI, BiSS, SPI	5

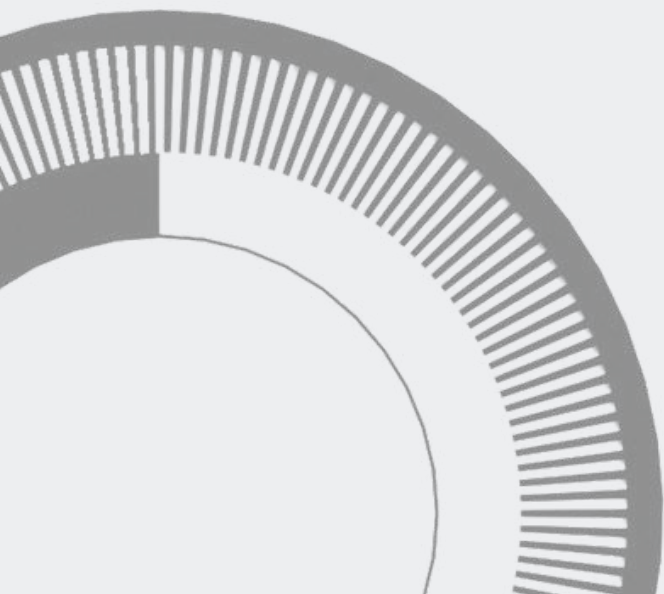
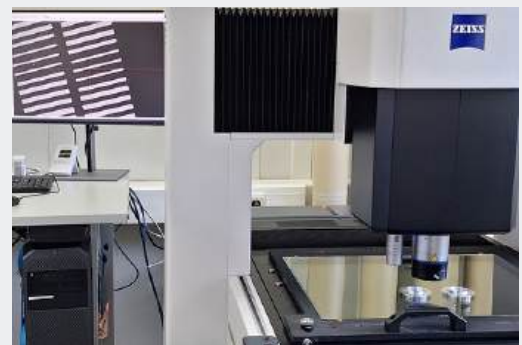
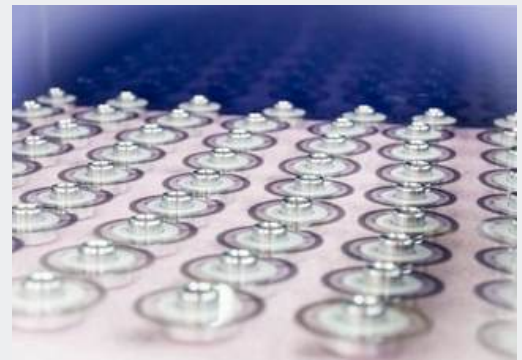
Production of encoder discs and encoder scales

We manufacture transmissive and reflective encoder discs based on polyester film and polycarbonate. Resolutions of up to 1,270 lpi and tolerances of less than 1 μm for the bar-to-window ratio (optical) and $< 10 \mu\text{m}$ (mechanical - concentricity from inner hole to data track) are achieved. These results are proof of the high standard of our products in terms of technology and production.

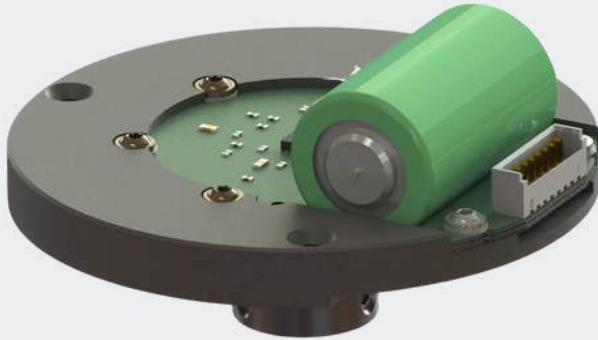
We manufacture according to your requirements - whether prototype, small series or large series. We extend the application possibilities of our encoder discs by using double-sided adhesive foils, stabilising discs and hubs, thus making assembly easier for our customers.

General key figures for our encoder discs:

- Resolution (lpi) max.: 1,270
- Concentricity (mm): 0.015
- Eccentricity (mm): 0.0075
- Bar/window (mm): ± 0.002
- Pitch (mm): ± 0.001

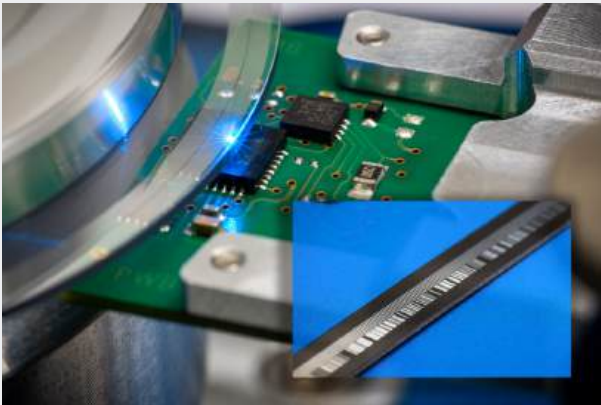


Customised solutions



Customised encoders: Individual solutions & development

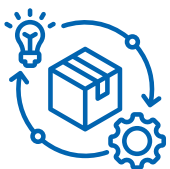
PWB encoders GmbH understands competent customer service to mean dedicated support in the concrete implementation of successful encoder solutions and concepts and close, committed dialogue with you as a customer.



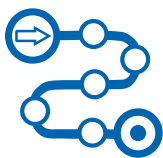
Our holistic service concept:

- Needs & problem analysis
- Solution concepts & product development
- Worldwide logistics
- After-sales & technical support
- Constant, consistent optimisation & innovation

Our advantages:



In-house development and production



Customised solutions and development projects



Production in air-conditioned clean rooms



Owner of several patents and technical processes



Collegial company structure



REACH and RoHS compliant

Areas of application

Benefit from our comprehensive industry expertise

Our products are used millions of times in many industrial and application areas - from robotics and medical technology to optoelectronics. Our products are particularly suitable for applications in handling technology, in electric drives and in general plant and mechanical engineering. Among other things, our encoders are used for the precise acquisition of position and speed data and for the exact control of motion sequences.

Many years of experience in these demanding areas of application are the reason for the high performance and reliability of PWB products.

We currently offer solutions for the following sectors (a selection):



AGVs



Industrial robots



Gripping systems



Printing machines



Welding machines



Measuring systems



Winding machines



Surveying



Storage systems



Hexapod








Medical technology



Fully autonomous scrubber dryer robot

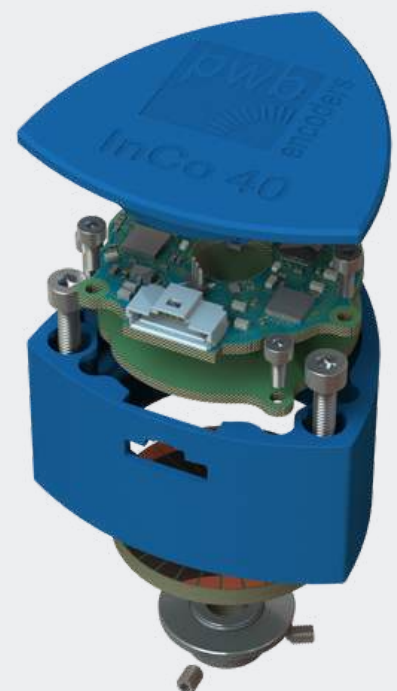


Our trade fair highlights - SPS 2024

Product image	Product name	Technology	Interface	Channels	Resolution	Outer diameter (mm)	Shaft diameter (mm)	Power supply (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
	MEM 10 HR	magnetic	absolute singleturn	SSI, BiSS	21 Bit	11	up to 8	3.3
	ASA 42 Y01	magnetic	absolute	SSI, BiSS + ABI, UVW	18 Bit	42	up to 11	5
	OREA 74	optical	absolute singleturn	SSI, BiSS, SPI	18 Bit	74	55	5

Benefit from inductive technology:

- no susceptibility to foreign particles and dirt
- insensitive to magnetic interference (e.g. brakes)
- reliable and precise
- robust
- high resolution
- application in machine tools, medical devices, aerospace technology, cardan systems and defence technology



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Business card

Notes:
