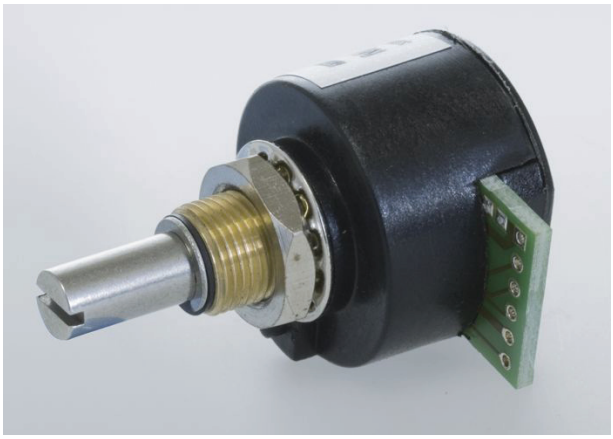
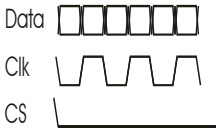
SENSORS & JOYSTICKS & ENGINEERING

Datasheet

Infiniturn® Encoder
mab25 SER



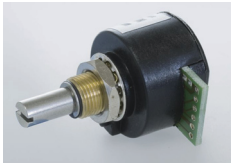
- Synchonous serial interface
- Resolution 10 Bit or 12 Bit
- Programmable zero point setting



The absolute control encoder MAB25 SER is used as a high resolution device or a rotary encoder for universal applications.

MegaMotive GmbH & Co. KG
Hermann-Oberth-Str. 7
85640 Putzbrunn / Munich
Germany
Tel.: +49 (0) 89 460 94 - 132
Fax: +48 (0) 89 460 94 - 287
www.megamotive.de
sales@megamotive.de

All specifications are subject to change



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Possible combinations

Series	Resolution speed	Supply Voltage	Interface
MAB25 SER	10 Bit High Speed	3.3V; 5V	SER
	12 Bit High Speed	3.3V; 5V	SER

Our speciality are customs solutions, economically priced on small series.
Mechanical: Special shaft, mounting of gear wheels and other mechanical parts.
Electrical: For the detailed information of all possibilities please refer to the **configuration sheet.**

Standard Options and Order Description

Type	Resolution speed	Supply Voltage	Output Signal	Order description
MAB25 SER	10 Bit High Speed	5V	SER	MAB25 10HS 5V SER
	12 Bit High Speed	5V	SER	MAB25 12HS 5V SER

All Standard Versions are with 5V.

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(*) For more Options, please refer to our configuration sheet

October 2008

Please note
The specifications and informations in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product. Please find the exact specifications of the output signals in the datasheets of application notes (AS5040) of Austria Microsystems: www.austriamicrosystems.com

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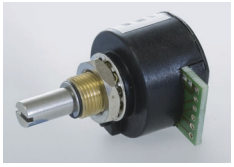

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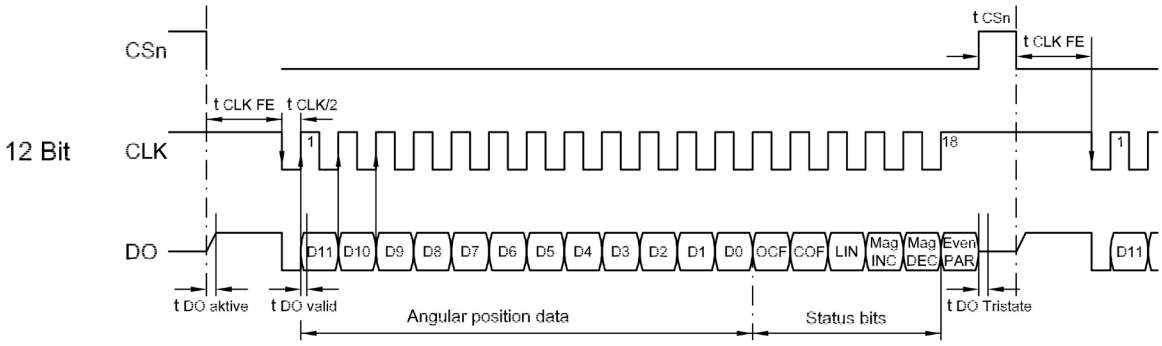
Electrical Specifications

Electrical angle	360°	(*)
Independent Linearity tolerance	± 0,2%	
Output Signal	SER = Synchronus serial interface (like SSI but with status signal)	
Resolution	4096 (12 Bit) 1024 (10 Bit)	
Updaterate positions	0,1 ms	
Supply voltage	4,5V ms ≤ UB ≤ 5,5V	



Synchronous serial interface with absolute position data

Falling edge of CS triggers a measurement value
Signal-timing:

tCSN	>500 ns
tCLKFE	>500 ns
CLK	<1 MHz

Remark: Above signal timing apply to 10 Bit and 12 Bit version.
Please find the exact specifications of the output signals in the datasheets of application notes (AS5040, AS5045) of Austria Microsystems.
www.austriamicrosystems.com

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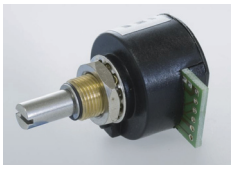

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Mechanical Specifications

Housing	glas fiber reinforced polyamid	
Material Shaft	stainless steel	
Bearing	Polymet sleeve bearing	
Protection Class	Front IP65	
Operating temperature	-30 ... +80° C	
Storage temperature	-40 ... +80° C	
Dimensions	pls. find drawing at page 5	
Ø Shaft	Ø 6mm	(*1)
Max. rotational speed	6.000 turn/min	
Life expectancy	>50 Mio. turns	
max. clamping torque of mounting nut	1 Nm	
weight	approx. 25g	

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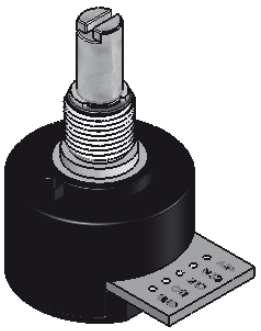
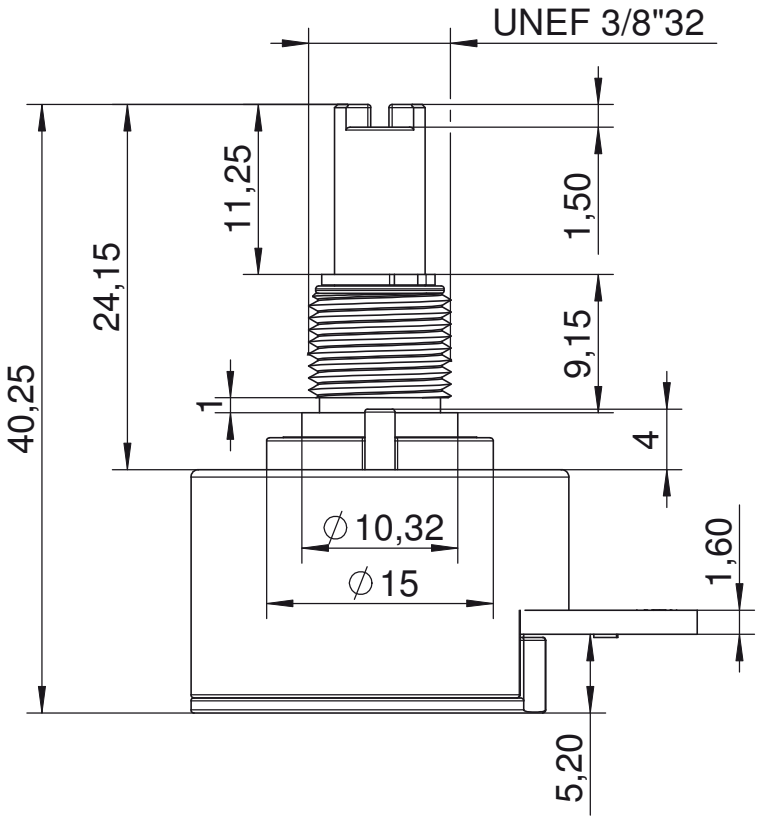
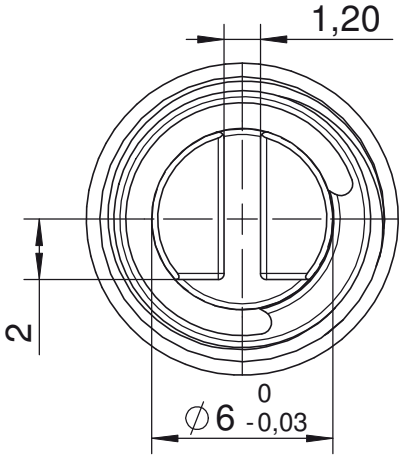
(*1) Other specifications on request

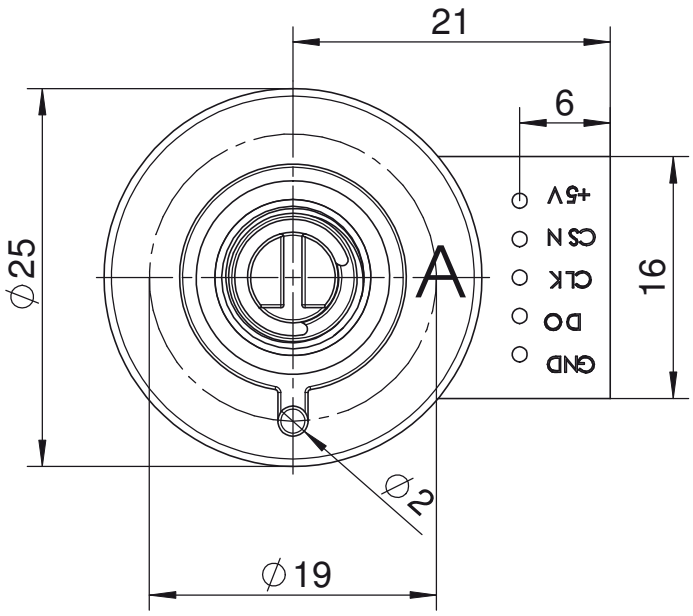
All specifications are subject to change







VIEW A
SCALE 4 : 1



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General Tolerances DIN 7168mH	Form and Coat Tolerances DIN/ISO 1101	Edges Dimension DIN 6784	Surface DIN/ISO 1302
	◎ 0,1	+0 -0,1 / -0 +0,1	w
	▱ 0,05		

Index	Modification	Date	Name

	Date	Name
Drw.	16.12.2008	Bahr
Chkd..	16.12.2008	Bahr
Norm		

Weight [g]	
Material	
Surface	

Title

R25 D

00068_R25_komplett_4_00_00

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MEGA MOTIVE

Project Number	Sheet 1
00068	of 1
Format DINA4	Scale: 1:1