Datasheet of Angle Sensors

MEGATRON
Precision for your Design

Optical Miniature Encoder — Series MOT 7

- - Ø 7 mm miniature housing
- - 2 channels and index
- - Maximum lifetime due to ball bearings

The MOT7 is distinguished by the extremely small dimensions. It is especially suitable for use in miniaturized devices. Typical applications are medical robots, medical equipment and special robots.

Electrical Data	
Number of Pulses	100, 200, 400 ppr.
Output Channels	A, B, Z
Output Electronics	Open Collector
Supply Voltage	5 VDC ±10%
Current Consumption (no load)	≤ 30 mA
Output Voltage Low @ IOL	≤ 0,4 V
max. Pull-Up-Voltage	13,2 V
max. Output Current	20 mA
Limit Frequency	100 kHz
Isolation Resistance	≥ 20 MΩ @ 100 VDC
Voltage Proof	1 min @ 100 VAC

Mechanical and Environmental Data	
max. Rotational Speed	6000 rpm.
Starting Torque	≤ 0,03 Ncm
max. Axial Shaft Load	0,98 N
max. Radial Shaft Load	1,90 N
Vibration Proof	55 Hz; 1,5 mm; 2 h each in X,Y,Z
Shock Proof	490 m/s², 3 times in X,Y,Z
Operating Temperature	-10...+80 °C
Storage Temperature	-20...+80 °C
Protection Class	IP50
Humidity	90% RF no dewing
Bearing	ball bearings
Material Shaft	stainless steel
Mounting Parts (included in delivery)	hexagonal nut
Weight	5 g

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Optical Miniature Encoder — Series MOT 7

Order Code

A	B	C	D	E

A - Product Code: MOT 7	**Code:** MOT 7	**D - Output Channels:** 2 Channels + Index	**Code:** BZ
B - Number of Pulses: 100 ppr. 200 ppr. 400 ppr.	**Code:** 100 200 400	**E - Output Electronics:** Open Collector	**Code:** K
C - Supply Voltage: 5 VDC ±10%	**Code:** 5		

Please also note our stock types at www.megatron.de

On serial demand we offer these and other cutomized products

- Special cable length
- Customized shaft
- Assembling of cables connectors and mechanical parts

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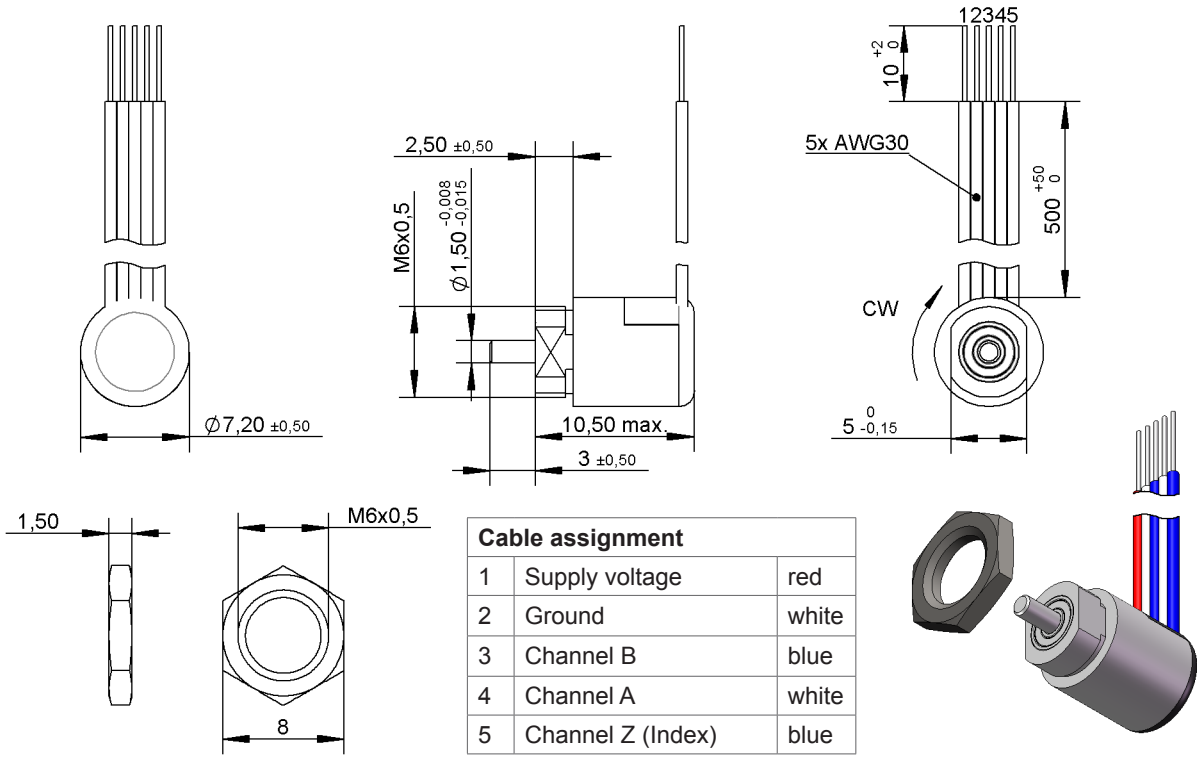
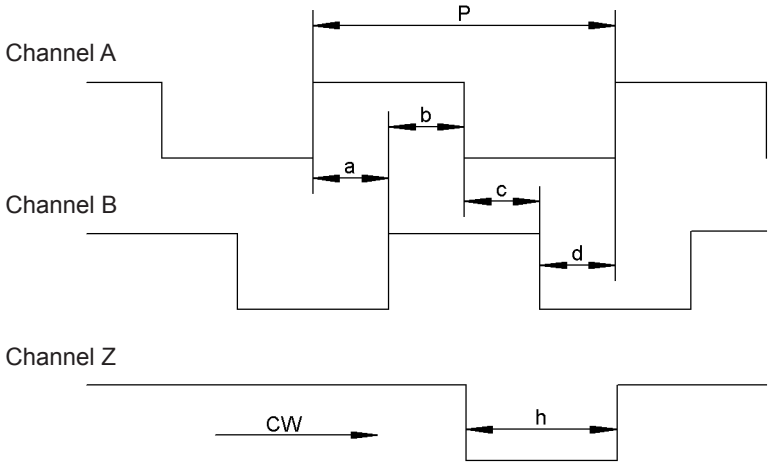
Technical Drawing



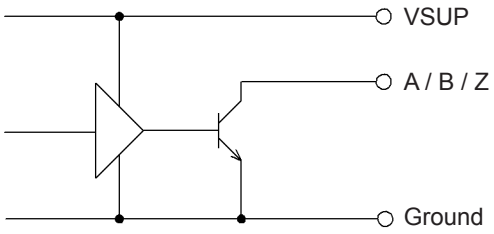
Cable assignment		
1	Supply voltage	red
2	Ground	white
3	Channel B	blue
4	Channel A	white
5	Channel Z (Index)	blue

Pulse sequence:



a, b, c, d = (P/4) ± (P/8)
P/4 ≤ h ≤ (3P/4)

Internal circuit:



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The specifications and information in this datasheet cannot consider all special damands that are caused by the application. Because of this, they are no general description of the properties of the product. All specifications have been determined at room temperature +20°C

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