

# Encoders without bearings - absolute

Magnetic sensor bore max.  $\varnothing 6$  mm

Magnetic singleturn encoders / kit 9 bit

## BMSK 42 parallel - MAGRES



BMSK 42 parallel kit

### Features

- Mini encoder / kit singleturn / parallel
- Magnetic sensing
- Resolution: 9 bit
- Housing  $\varnothing 42$  mm
- High protection standard
- High resistance to shock and vibrations
- Reset input

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 10$ %
Consumption typ.	100 mA (5 VDC, w/o load)
Sensing method	Magnetic
Initializing time typ.	170 ms after power on
Steps per turn	512 / 9 bit
Absolute accuracy	$\pm 1^\circ$
Interface	9 parallel outputs
Function	Singleturn
Code	Gray or binary
Code sequence	CW: ascending values with clockwise sense of rotation; looking at flange
Inputs	Zero setting input
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3
Approval	UL approval / E217823

### Technical data - mechanical design

Size (flange)	$\varnothing 55$ mm
Shaft type	$\varnothing 6$ mm (magnet bore)
Protection DIN EN 60529	IP 67
Gap tolerance	$\leq 0.3$ mm axial $\leq 0.1$ mm radial
Operating temperature	$-20 \dots +85^\circ\text{C}$
Operating speed	$\leq 12000$ rpm (mechanical) $\leq 6000$ rpm (electric)
Resistance	DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Materials	Housing: steel/aluminium Flange: aluminium
Relative humidity	95 %
Connection	Connector Cable
Weight approx.	50 g

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### Part number

BMSK 42L1 

	05T	09/00	06	
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Connection  
5 Cable radial, IP 67  
B Connector axial, IP40  
Solid shaft  
06  $\varnothing 6$  mm magnet bore  
Resolution  
09/00 9 bit singleturn  
Voltage supply / signals  
05T 5 VDC / parallel TTL compatible  
Code  
G Gray code  
N Binary code

### Accessories

#### Mounting accessories

10112433 Hexagon wrench 2 mm

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### Terminal significance

+Vs	Encoder supply voltage.
0 V	Encoder ground connection relating to +Vs.
Bit 1-9	9 parallel output signals.
Zero	Input for setting a zero point anywhere within the encoder resolution. The zero setting operation is triggered by a Low impulse. Connect to +Vs after setting operation for maximum interference immunity. Impulse duration >2 ms.

### Terminal assignment

#### Cable

for connection reference **-5**

Core colour	Signals	Description
brown	+Vs	Supply voltage
white	0 V	Supply voltage
green	Bit 1 LSB	Data bit
yellow	Bit 2	Data bit
grey	Bit 3	Data bit
pink	Bit 4	Data bit
blue	Bit 5	Data bit
red	Bit 6	Data bit
black	Bit 7	Data bit
purple	Bit 8	Data bit
grey/pink	Bit 9 MSB	Data bit
red/blue	Zero	Zero setting input
Screen	connected to housing	
Cable data	12 x 0.14 mm <sup>2</sup>	

#### Connector male

for connection reference **-B**

Connector	Signals	Description
Pin 1	+Vs	Supply voltage
Pin 2	0 V	Supply voltage
Pin 3	Bit 1	Data bit
Pin 4	Bit 2	Data bit
Pin 5	Bit 3	Data bit
Pin 6	Bit 4	Data bit
Pin 7	Bit 5	Data bit
Pin 8	Bit 6	Data bit
Pin 9	Bit 7	Data bit
Pin 10	Bit 8	Data bit
Pin 11	Bit 9 MSB	Data bit
Pin 12	Zero	Zero setting input

### Trigger level

#### Control inputs

	Input circuit
Zero setting	<0,4 V (>2 ms)
Off state	+Vs or open

#### Parallel outputs 05T

	Output circuit
	TTL
Output level High	>2,4 V
Output level Low	<0,4 V
Load High	<2 mA / Output
Load Low	<10 mA / Output

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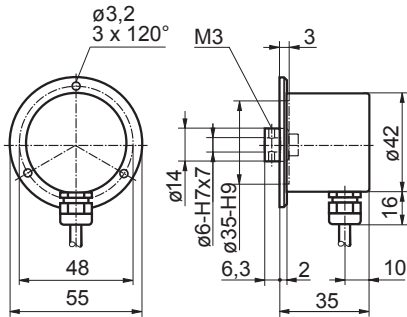
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## BMSK 42 parallel - MAGRES

### Dimensions

BMSK 42 parallel, cable radial



BMSK 42 parallel, connector output axial

