Absolute encoders - parallel

Magnetic sensor bore max. ø6 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 ø42 mm**
- **High protection standard**
- **High resistance to shock and vibrations**
- **Reset input**

Technical data - electrical ratings

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

Technical data - mechanical design

Dimensions (flange)	ø55 mm
Shaft	Magnet hole 6 mm
Protection DIN EN 60529	IP 67
Operating speed	≤12000 rpm (mechanical) ≤6000 rpm (electric)
Materials	Housing: steel/aluminium Flange: aluminium
Operating temperature	-20...+85 °C
Relative humidity	95 %
Resistance	DIN EN 60068-2-6 Vibration 30 g, 10-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Weight approx.	50 g
Connection	Connector Cable
Gap tolerance	≤0.3 mm axial ≤0.1 mm radial

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Part number

BMSK 42L1		05T	09/00	06	

Code
- G Gray code
- N Binary code

Voltage supply / signals
- 05T 5 VDC / parallel TTL compatible

Resolution
- 09/00 9 bit singleturn

Shaft
- 06 Magnet hole ø6 mm

Connection
- 5 Cable radial, IP 67
- B Connector axial, IP40

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^2	

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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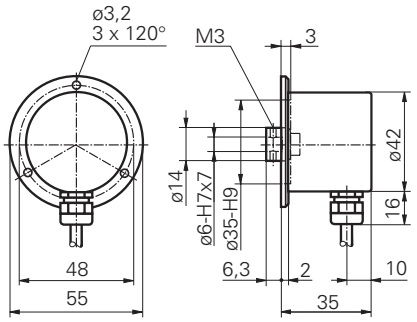
Dimensions

BMSK 42 parallel, connector output axial



BMSK 42 parallel, cable radial