Absolute encoders - parallel

Shaft max. ø10 mm
Magnetic singleturn encoders 9 bit

BMSV 42 parallel - *MAGRES*

BMSV 42 parallel with shaft

Features

– **Mini encoder singleturn / parallel**
– **Magnetic sensing**
– **Resolution: 9 bit**
– **Housing ø42 mm**
– **High resistance to shock and vibrations**
– **Reset input**
– **Shaft ø10 mm or ø6 mm**

Technical data - electrical ratings

Voltage supply	5 VDC ±10 %
Consumption w/o load (typ.)	100 mA (24 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)	ø42 mm
Shaft	ø6 mm ø10 mm
Protection DIN EN 60529	IP 65
Operating speed	≤12000 rpm (mechanical) ≤6000 rpm (electric)
Operating torque typ.	0.0093 Nm
Shaft loading	≤10 N axial ≤25 N radial
Materials	Housing: steel 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.	120 g
Connection	Cable 1 m

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Part number

BMSV 42S1 | **05T** | **09/00** | **5**

Connection
5 Cable radial

Shaft
C6 ø6 mm, IP 65
C0 ø10 mm, IP 65

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

10110616	Clamp set
11053277	Bellows coupling aluminium/stainless steel 10 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	14 x 0.14 mm^2	

Trigger level

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

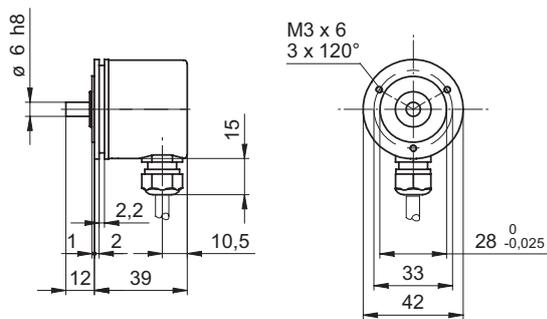| Parallel outputs 05T	Output circuit TTL
Output level High	>2,4 V
Output level Low	<0,4 V
Load High	<2 mA / Output
Load Low	<10 mA / Output

Baumer

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Dimensions

BMSV 42 parallel shaft 6 mm, cable

BMSV 42 parallel shaft 10 mm, cable