

DATA SHEET

VES-ENABS1206/1210 (SHAFT/HOLLOW SHAFT)

The absolute singleturn encoders with SSI interface and magnetic sensor technology are the specialists when space is tight. Because of their high 12 bitresolution with 4096 different positions for 360° they offer exceptional repeat accuracy.



MINIMAL SPACE REQUIREMENT

- The outer diameter measures 24 mm; the shaft diameter up to max 10 mm.
- Flexible connection with radial or axial cable outlet.

DURABLE AND ACCURATE

- Long service life and freedom from wear due to non-contact measuring system.
- Wide temperature range from -20 °C up to +85 °C.
- High 12 bitresolution with 4096 different positions for 360°.



1. TECHNICAL DATA

MECHANICAL CHARACTERISTICS

Maximum speed		10000 rpm
Mass moment of inertia		approx. $0.1 \times 10^{-6} \text{ kgm}^2$
Starting torque - at 20 °C [68 °F]		< 0.01 Nm
Shaft load capacity	radial	20 N
	axial	10 N
Weight		approx. 0.03 kg [1.06 oz]
Protection	housing side	IP65
	flange side	IP50 (IP64 on request)
Working temperature range		-20 °C ... +85 °C [-4 °F ... +185 °F]
Material	clamping ring	Brass

ELECTRICAL CHARACTERISTICS

Supply voltage		5 (± 0.4)V DC
Power consumption (no load)		< 50 mA
Reverse polarity protection of the supply voltage		yes
Short circuit proof output		yes
Measuring range		360°
Linearity, 25 °C [77 °F]		< 0.2°
Repeat accuracy		$\leq 0.1^\circ$

SSI INTERFACE

Output driver		RS422
Permissible load / channel		typ. 60 Ohm (acc. to RS422)
Resolution		12 bit ... 18 bit
Code		gray
SSI clock speed		100 kHz ... 750 kHz
Monoflop time	typ. / max.	16 μs / 20 μs
Data refresh rate		typ. 100 μs

TERMINAL ASSIGNMENT

Interface	Type of connection	Cable (isolate unused cores individually before initial start-up)						
		1	1, 2, A, B	Signal:	0 V	+V	C+	C-
		Core color:	BR	WH	GN	GR	PK	YE

+V : Supply voltage encoder +V DC

0 V : Supply voltage encoder ground GND (0 V)

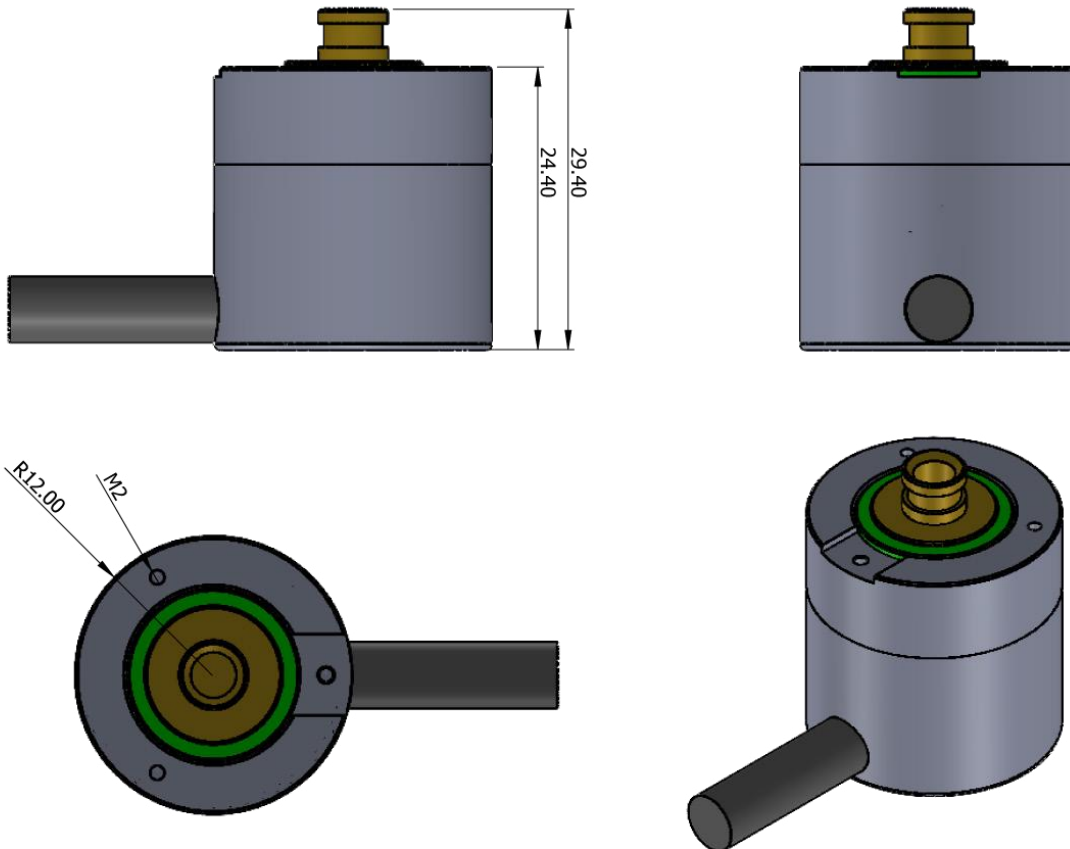
C+, C- : Clock signal

D+, D- : Data signal

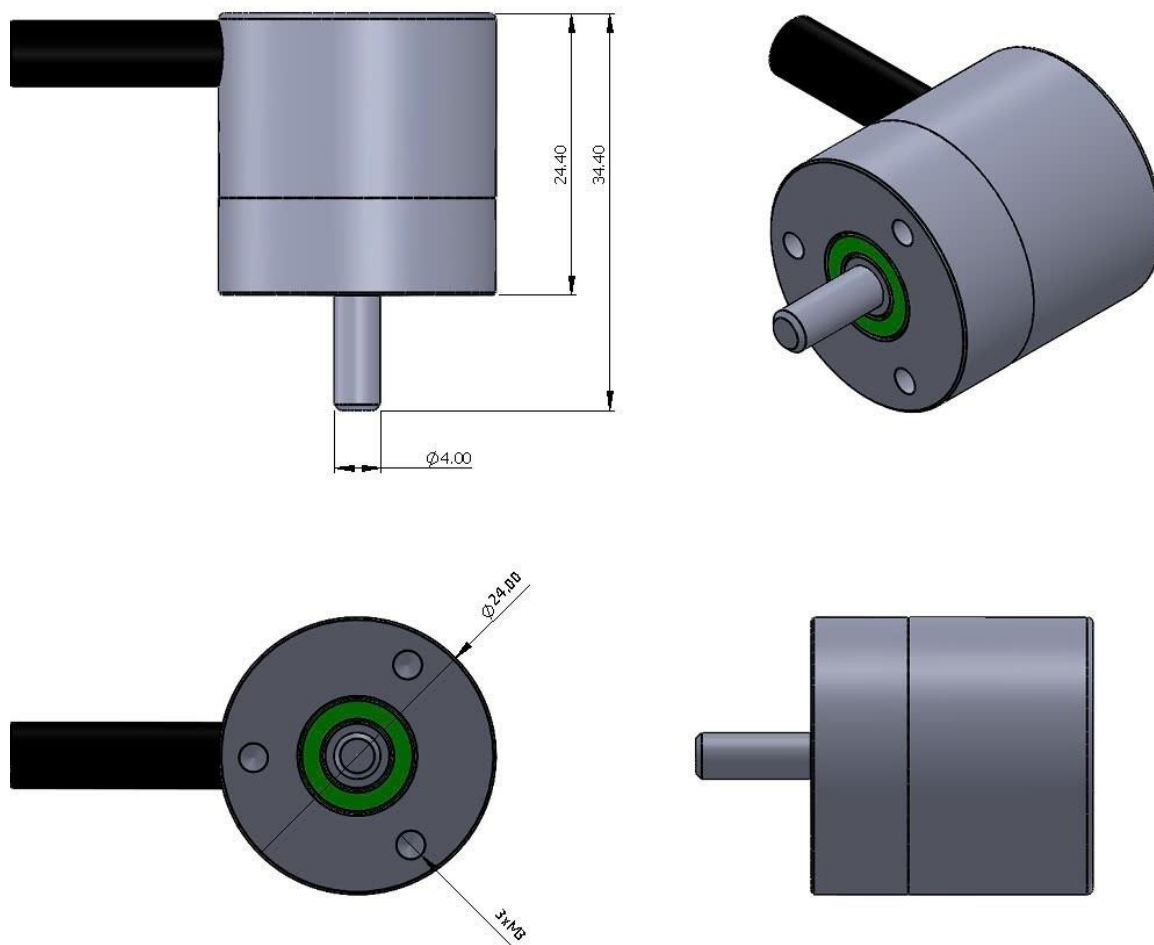
2. DIMENSIONS

Dimensions in mm

VES-ENABS1206 HOLLOW SHAFT



VES-ENABS1210 SHAFT



3. CONTACT US

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