

DATA SHEET

VES-ENABS-Rxx-Hxx-xxx

The absolute singleturn encoders with SSI interface and magnetic sensor technology are the specialists when space is tight. Because of their high-resolution measurement over 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 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-resolution measurement over 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/16-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)

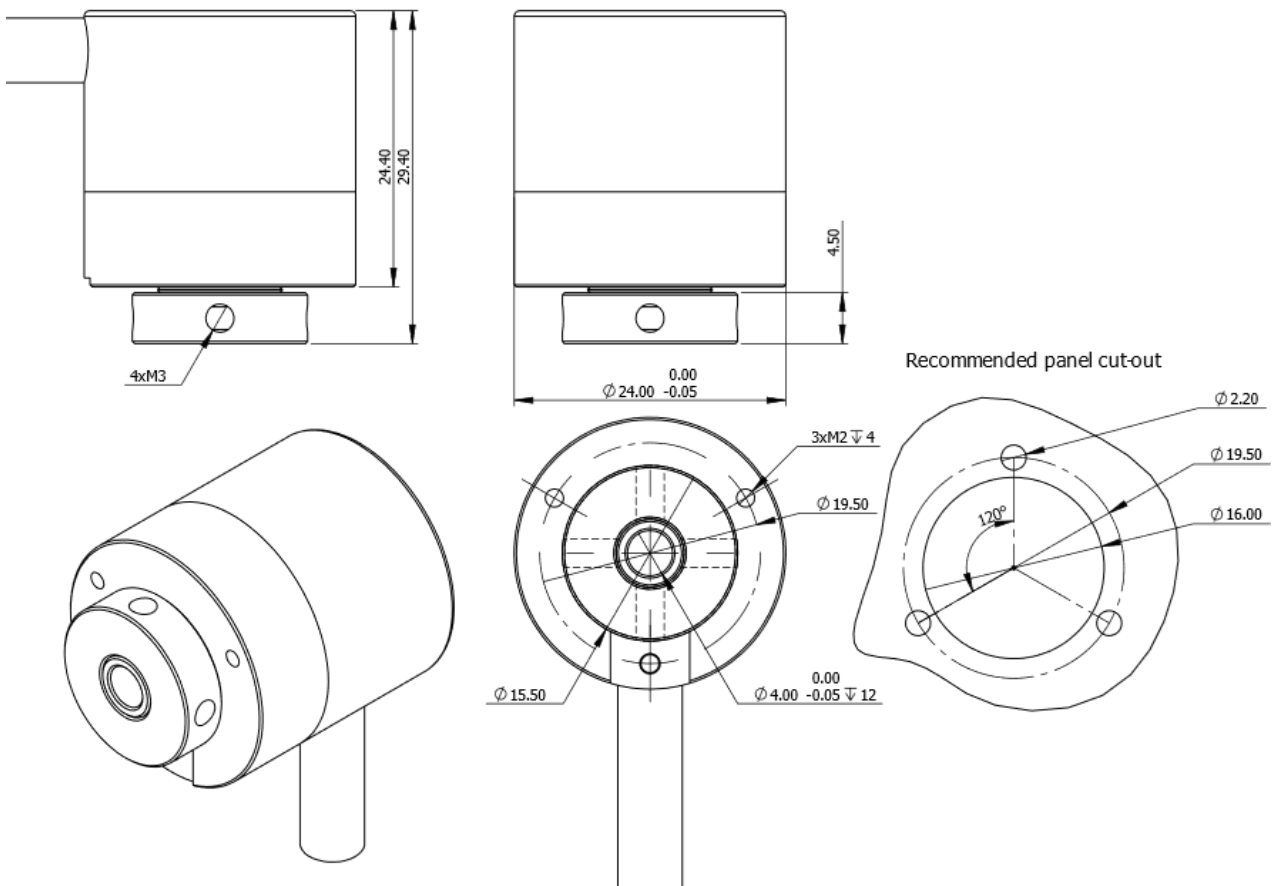
C+, C- : Clock signal

D+, D- : Data signal

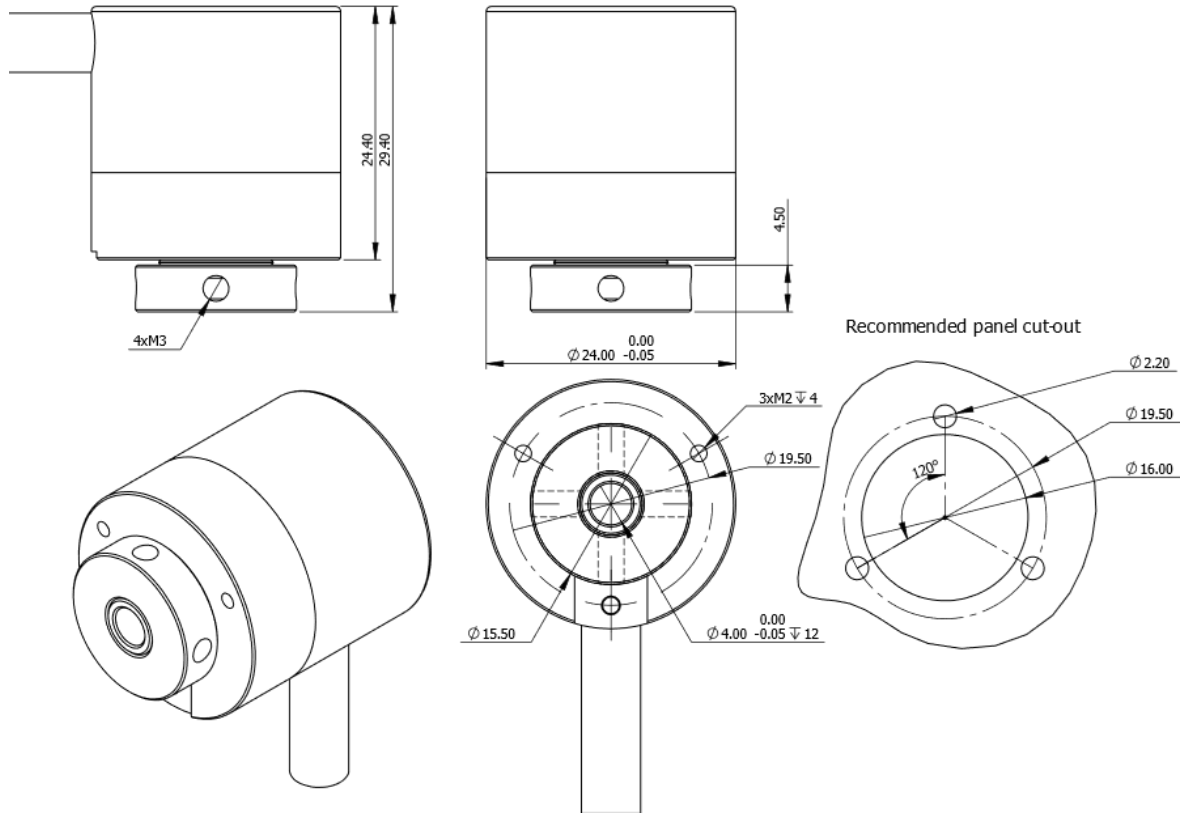
2. DIMENSIONS

(Dimensions in mm)

VES-ENABS-Rxx-H06-HOL (Hollow shaft version)

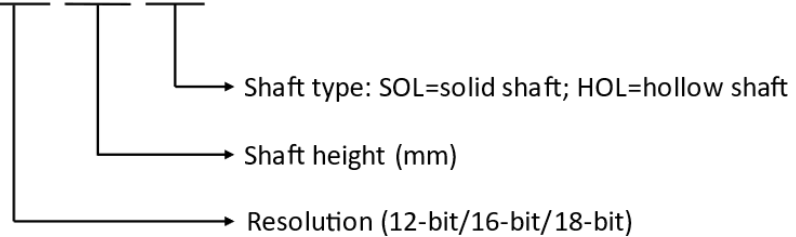


VES-ENABS-Rxx-H10-SOL (Solid shaft version)



3. ORDERING INFORMATION

VES-ENABS-Rxx-Hxx-xxx



Resolution Option

Code	Description
R12	12-bit
R16	16-bit
R18	18-bit

Shaft Height Option

Code	Description
H06	6mm
H10	10mm

Shaft Type Option

Code	Description
SOL	Solid Shaft
HOL	Hollow Shaft

4. CONTACT US

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