| MEM40B | MEM41B | MEM40-B |

MEM40Bus · MEM41Bus CANopen

ABSOLUTE ENCODERS WITH FIELDBUS INTERFACE

CAN (Controller Area Network) is a fast data transmission protocol, suitable to applications in industrial automation. Through the **CANbus** actuators and sensors, even by different manufacturers, can easily communicate.

CANopen fieldbus ensures:

- **Data rate of** 1 MBaud with network expansion up to 40
- **Real Time** operation
- **Data consistency across the network**
- **Brodcasting, Multicasting**

c **UL** US

MEM40 CANOPEN ENCODER PROFILE

- Complying with standards **CiA DS 301** "Application Layer and Communication Profile" and **DS 406** "Device Profile for Encoders"
- Class **C2**

SETTABLE PARAMETERS	DIAGNOSTIC FUNCTIONS	STATE INDICATORS
• Steps/revolution • Revolutions number • Preset • Rotation direction	• Position or parameter error • Battery alarm • Temperature alarm	3 signalling LEDs for: • Supply • Data • Error
•**MEM40B - MEM41B: Node and baud rate selection** by LSS protocol or dip-switches		

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

	MEM40B	MEM41B
• Materials: housing shaft	Aluminium Stainless steel	
• Weight	100 g ca	
• Shaft/hollow shaft Ø	10 mm	10 mm
• Revolutions/minute	6000	
• Starting torque	≤0,2 Ncm	
• Intertia	≤5 g cm^2	
• Max load	10 N axial/20 N radial	
• Vibrations resistance (10÷2000 Hz)	10 G	
• Shock (11 ms)	30 G	
• Protection degree	IP65	IP65
• Operating temperature	-10 ÷ 80°C	
• Stocking temperature	-20 ÷ 80°C	

ELECTRICAL & OPERATING SPECIFICATIONS

• Operating principle	Magnetic
• Resolution/revoltution	8192 steps/rev – 13 bit
• Revolutions no.	65536/16 bit
• Initializing time	< 1 s
• Data memory	>30 years power off
• Fieldbus	CANopen
• Supply	10 ÷ 30 Vdc Protection against polarity reversal
• Power consumption	2 W
• Accuracy	± 0.2°
• Connection	M12 5 5 pin radial connector
• Interference immunity	EN 61000-6-2
• Emitted interference	EN61000-6-4
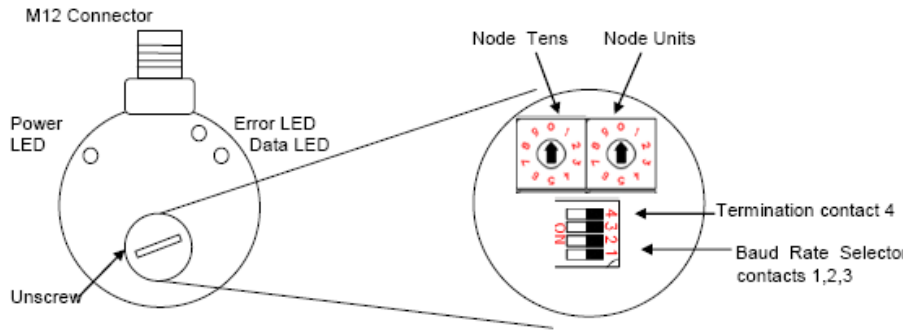
The **node ID** (user address) can be set via LSS in object 2101H or by using the dip-switches of the encoder.
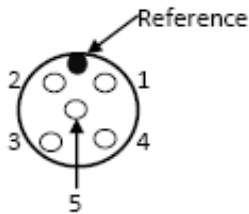
The **baud rate** can be defined/modified in object 2100H or by means of contacts 1, 2 and 3 of the encoder DIP switch.

Inserting the termination resistor
When the encoder is connected to one end of the bus, the bus must be properly terminated by a resistor. The resistor can be inserted by means of the dip-switch contact 4.

CONNECTIONS

Plug connector M12 – Insertion side view

PIN	Name	Description
1	Shield	Shield connection
2	+V	Supply 10-30 Vdc Positive pole
3	0V	0 V Supply 10-30 Vdc
4	CAN-H	CAN bus high signal
5	CAN-L	CAN bus low signal

MECHANICAL VERSIONS

MEM40-Bus	MEM41-Bus
Body Ø 41 mm Servo coupling Ø 36 mm Shaft Ø 10 mm	Body Ø 41 mm Hollow shaft flange for motor coupling, hole Ø 10 mm Fixing by elastic support

ORDERING INFORMATION

MEM40B	CAN	M	10

CERTIFICATE NO. E510647

SHAFT/HOLLOW SHAFT DIAMETER
Shaft 10 mm
Hollow shaft 10 mm

TURNS
M = Multiturn

BUS INTERFACE
CAN = CANopen

TYPE
MEM40B = Round flange, solid shaft
MEM41B = Hollow shaft + elastic support fixing

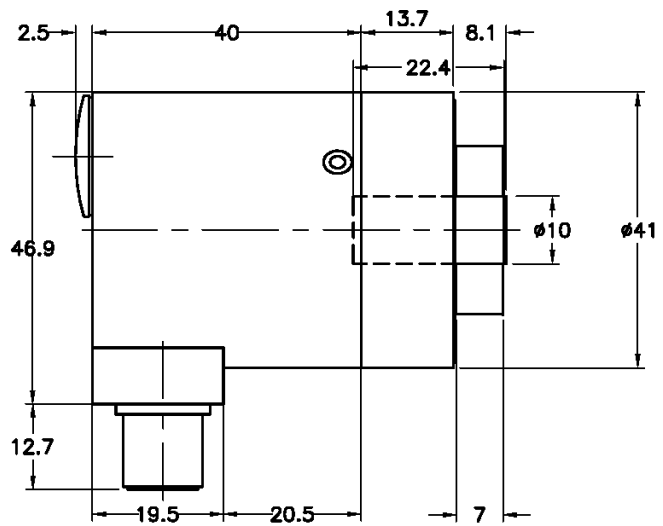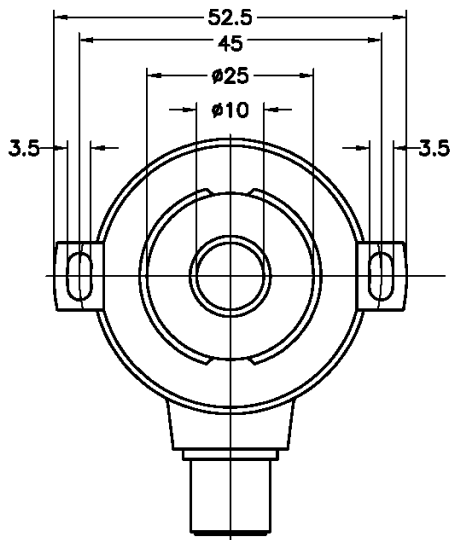*ELAP reserves the right to upgrade the product without notice*

Type **MEM40B**

Ref. M2081

N° 4 Fori M3x8
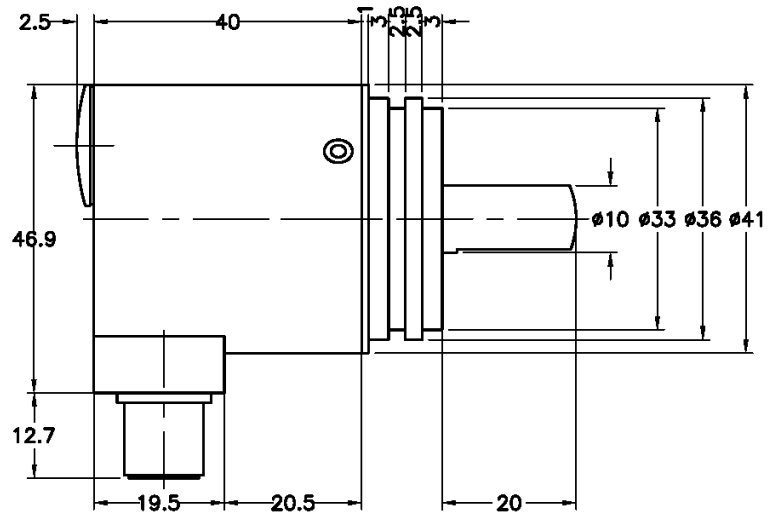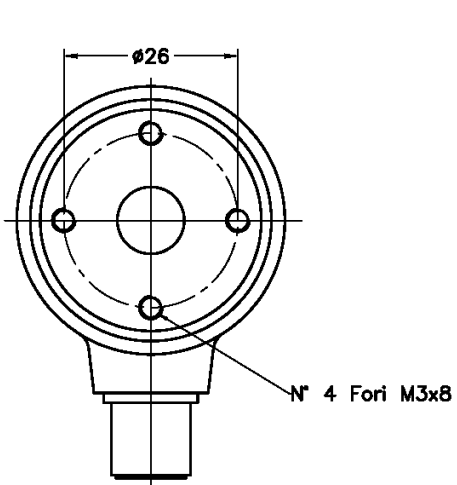
Type **MEM41B**

Ref. M2116

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Componenti ideali per
INDUSTRIA 4.0

REFERENCES

Manuals, dimensional drawings, software available at

https://www.elap.it/absolute-encoders/encoder-mem40-canopen/