



MEM620-Bus



MEM520-Bus



MEM540-Bus

# ABSOLUTE ENCODERS WITH FIELDBUS INTERFACE



- **Single & Multiturn Absolute Encoders**
- **High resolution**
- **Different configurations available**
- **Compact size**
- **Easy to program**

**Profibus-DP** is an open communication system for applications in the fields of the automation of production processes, enabling fast data exchange among control units and remote peripherals.

**PROFIBUS DP** is featured by the following characteristics:

- Short response times (1 ms with 32 users and 12 MBaud)
- Reliable transmission procedure
- Availability of a wide range of standardized system components
- Good diagnostic capability
- Simple handling and facility for upgrading
- User-oriented bus system
- Open system

## MEM-BUS PROFIBUS ENCODER PROFILE

- **Encoder Profile Profibus DP standard EN 501701 Vol. 2**
- **Application Class: 1-2**
- Parameter entering and preset functions, scaling functions

SETTABLE PARAMETERS	DIAGNOSTIC FUNCTIONS	STATE INDICATORS
<ul style="list-style-type: none"> <li>• Steps/revolution</li> <li>• Revolutions number</li> <li>• Preset</li> <li>• Rotation direction</li> </ul>	<ul style="list-style-type: none"> <li>• Position or parameter error</li> <li>• Battery alarm</li> </ul>	<ul style="list-style-type: none"> <li>• 2 signalling LEDs for:               <ul style="list-style-type: none"> <li>• Supply</li> <li>• Line</li> </ul> </li> </ul>

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS	MEM-Bus		620/520/540	410/450
	• Materials: case shaft			Aluminium
• Weight			500 g ca.	
• Shaft/joint hole Ø	6, 8, 10 mm		8, 10, 12, 14, 15 mm	
• Revolutions/minute			6000	
• Starting torque			≤0.8 Ncm	
• Inertia			≤25 g cm <sup>2</sup>	
• Max load			80 N axial/100 N radial	
• Vibrations resistance (10÷2000 Hz)			100 m/sec <sup>2</sup>	
• Shock (11 ms)			50 G	
• Protection degree	IP65 optional IP67		IP65	
• Operating temperature			-30 ÷ 70°C	
• Stacking temperature			-30 ÷ 85°C	

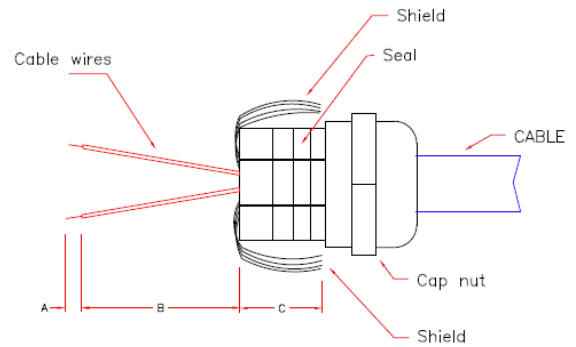
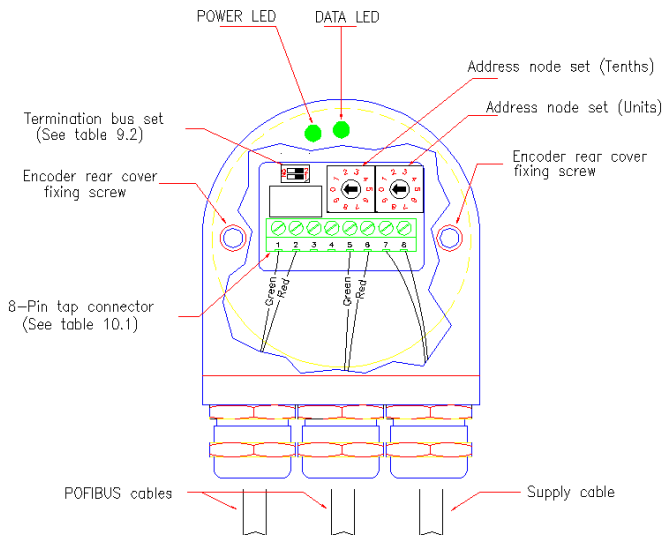
CARATTERISTICHE ELETTRICHE E FUNZIONALI	
• Operating principle	Magnetic
• Resolution/revolution	8192 steps/rev – 13 bit
• Revolutions no. (multiturn)	65536/16 bit
• Initializing time	< 1 s
• Data memory	>21 years power off
• Fieldbus	Profibus
• Supply	5 ÷ 28 Vdc Protection against polarity reversal
• Power consumption	2 W
• Accuracy	± ½ LSB
• Connection	3 cableglands or 2 cableglands
• Interference immunity	EN 61000-6-2
• Emitted interference	EN61000-6-4



## MECHANICAL VERSIONS

MEM620-Bus	MEM520-Bus	MEM540-Bus	MEM410-Bus	MEM450-Bus
Ø 58 mm body 63,5x63,5 mm square flange	Ø 58 mm body Ø 58 mm round flange	Ø 58 mm body Ø 58 mm round flange	Ø 58 mm body Blind hollow shaft for motor fixing.	Ø 58 mm body Blind hollow shaft for motor fixing.
Ø 31,75 mm centering mask	Servo coupling Ø 50 mm centering mask	Ø 36 mm centering mask- 3 holes M4 a 120° on Ø 48 mm	Joint hole Ø 8, 10, 12, 14 or 15 mm	Joint hole Ø 8, 10, 12, 14 or 15 mm
Shaft Ø 6, 8 or 10 mm	Shaft Ø 6, 8 or 10 mm	Shaft Ø 6, 8 or 10 mm		Fixing by elastic metal support

## CONNECTIONS



A: 6 mm approx.  
B: 35 mm approx.  
C: 11 mm approx.

PIN N.	NOME
1	A
2	B
3	+V
4	GND
5	A
6	B
7	+V
8	GND

TABLE 9.2 DIP SWITCH SET (Termination enable/disable)	
	Contacts 1 and 2 = ON : Termination enable
	Contacts 1 and 2 = OFF : Termination disable

## ORDERING INFORMATION

<b>MEM520B</b>	<b>PDP</b>	<b>M</b>	<b>10</b>	<b>3P</b>
				<b>CONNECTIONS</b> 3P 3 pressacavi 2P 2 pressacavi
				<b>SHAFT/JOINT HOLE Ø</b> 6 - 8 - 10- 12 - 14 - 15 mm
		<b>No. of TURNS</b> M = Multiturn S = Singleturn		
	<b>INTERFACE</b> PDP = Profibus DP			

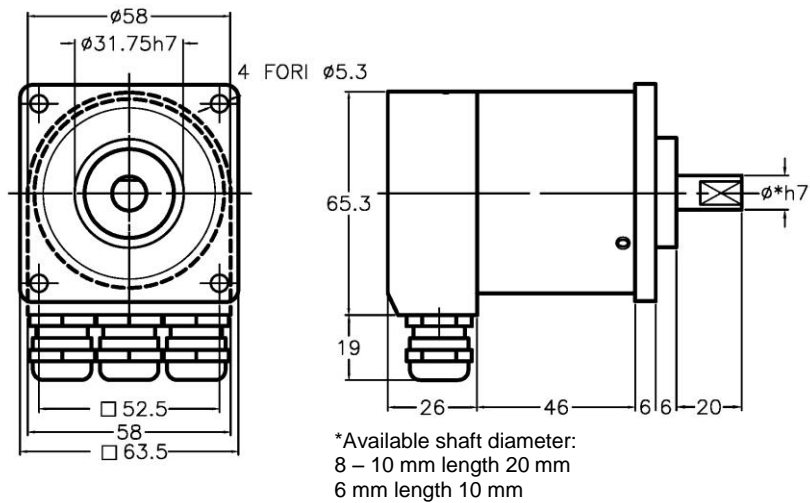
### TYPE

MEM520-Bus = Round flange Ø 58 mm  
MEM540-Bus = Round flange Ø 58 mm  
MEM620-Bus = Square flange 63.5x63.5 mm  
MEM410-Bus = Blind hollow shaft for motor coupling  
MEM450-Bus = Blind hollow shaft, fixing by elastic support

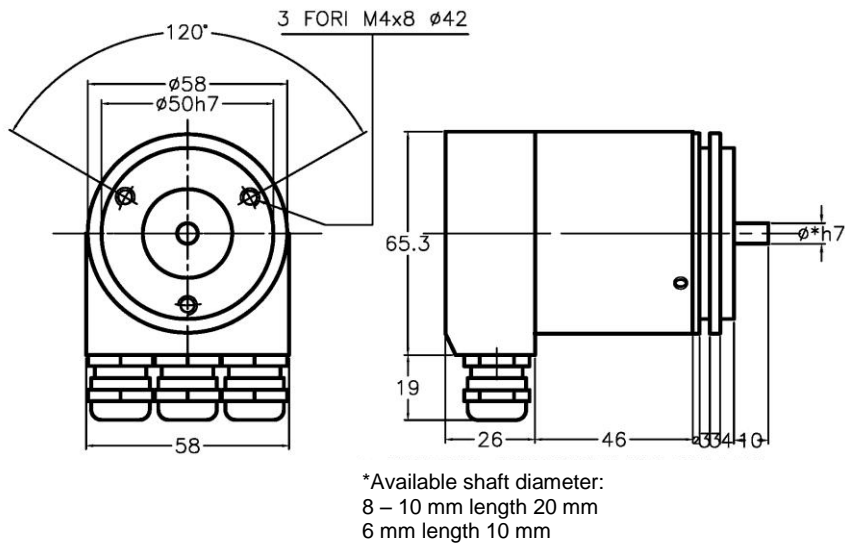
ELAP reserves the right to update the product without notice



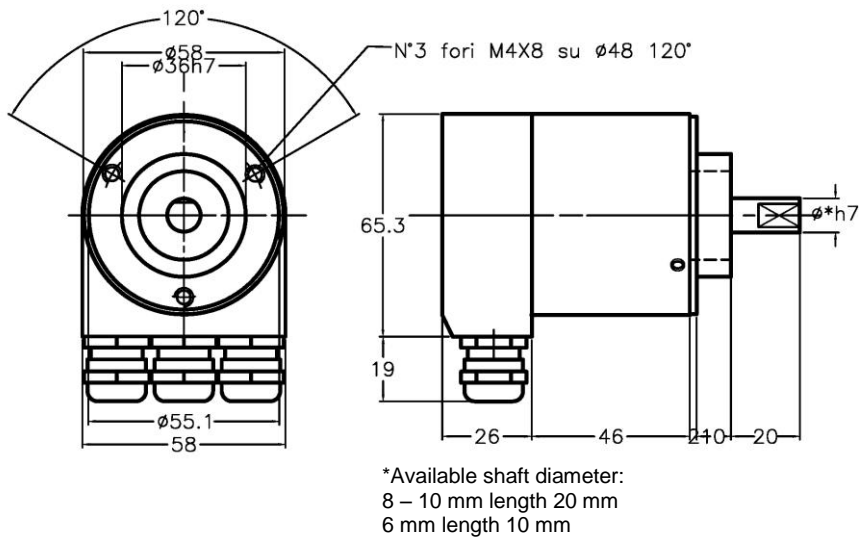
**MEM620Bus**



**MEM520Bus**



**MEM540Bus**





MEM620-Bus

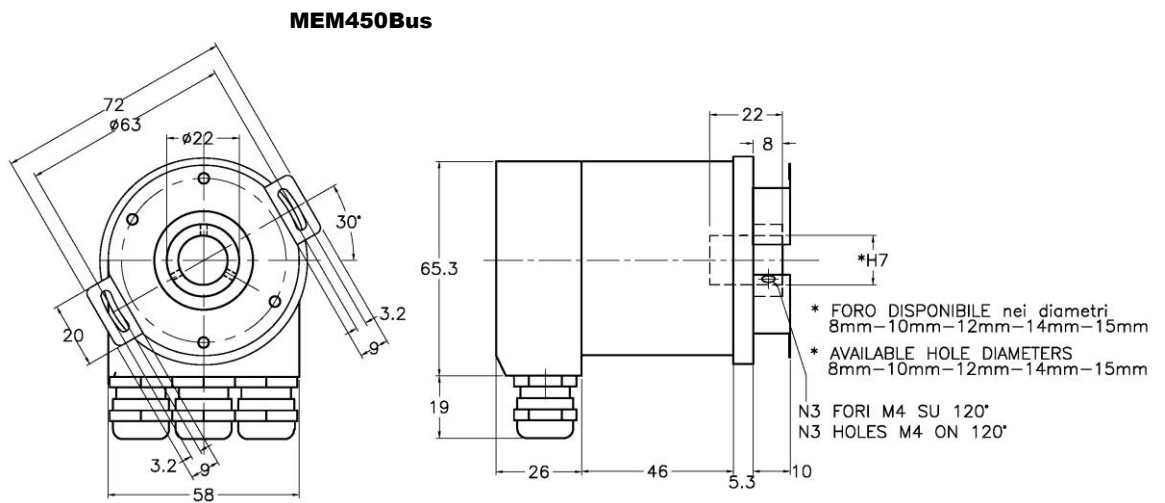
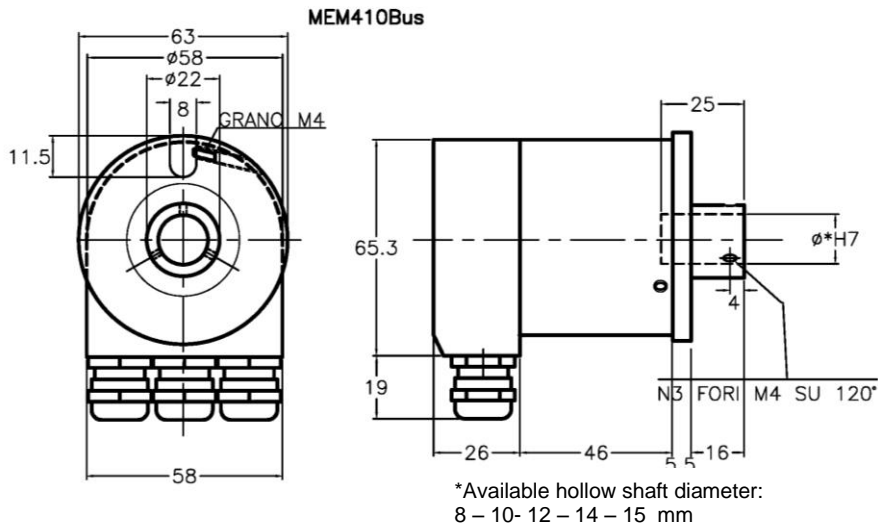


MEM410-Bus



MEM450-Bus

## DIMENSIONS



Ref M2048

## REFERENCES

MANUALS, SOFTWARE and DIMENSIONAL DRAWING DOWNLOAD AT:

<https://www.elap.it/absolute-encoders/encoder-mem-bus-profibus/>



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