



# elap MEM-BUS EtherNet/IP™

## GUIDA RAPIDA

EtherNet/IP™



FILE NO. 11803.01

CERTIFICATE NO. E510647

### PROFILO ENCODER MEM-BUS EtherNet IP™

- Rif IEC61784-1 Profilo del dispositivo Protocollo CIP™, profilo encoder 22H
- Livello fisico EtherNet/IP™ 100Base-TX, Fast Ethernet, ISO/IEC 8802-3
- Codifica dati in uscita: binaria
- Tempo di ciclo  $\geq 1$  ms • Velocità di trasmissione 100 Mbit/s
- Trasmissione: Cavo CAT-5, schermato (STP), ISO/IEC 11801

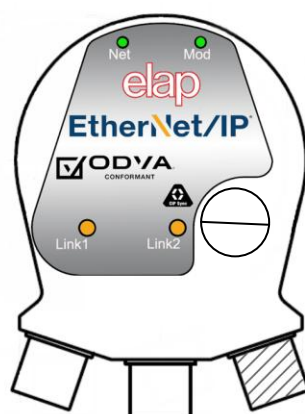
### CARATTERISTICHE MECCANICHE ED AMBIENTALI

MEM-Bus	620/520/540	440/450
• Materiali: custodia albero	Alluminio Acciaio inox	
• Peso	500 g circa	
• Diametro albero/albero cavo	6, 8, 10 mm	8, 10, 12, 14, 15 mm
• Giri/minuto	6000	
• Coppia avviamento	$\leq 0,8$ Ncm	
• Momento di inerzia	$\leq 25$ g cm <sup>2</sup>	
• Carico ammesso	80 N assiale/100 N radiale	
• Resistenza alle vibrazioni (10÷2000 Hz)	100 m/sec <sup>2</sup>	
• Resistenza all'urto (11 ms)	50 G	
• Grado di protezione	IP67 - lato albero IP65	
• Temperatura di esercizio	-30 ÷ 70°C	
• Temperatura ambiente (certificato UL)	Max 60°C	
• Temperatura di immagazzinaggio	-30 ÷ 85°C	

### CARATTERISTICHE ELETTRICHE E FUNZIONALI

• Funzionamento	Magnetico
• Risoluzione/giro	8192 posizioni/giro - 13 bit
• Numero giri multigirotto	65536 / 16 bit
• Tempo di inizializzazione	< 1 s
• Mantenimento dato	>20 anni ad albero fermo in assenza di alimentazione
• Bus di campo	EtherNet/IP™
• Alimentazione	10 ÷ 30 Vdc Protezione all'inversione di polarità
• Assorbimento	2,5 W
• Precisione	$\pm 1/2$ LSB
• Tipi di connessione	2 connettori M12 femmina D-coding +1 connettore M12 maschio
• Immunità alle interferenze	EN 61000-6-2
• Interferenze emesse	EN61000-6-4

### COLLEGAMENTI



Porta 1    Porta 2    Alimentazione

Connettore Port1 e Port2  
Tipo M12 femmina D code

Pin	Segnale
1	Tx+
2	Rx+
3	Tx-
4	Rx-



Connettore ALIMENTAZIONE  
Tipo M12 maschio A code

Pin	Segnale
1	+Valim.(10-30Vdc)
2	N.C.
3	GND (0V)
4	N.C.



Connessioni tramite 2 connettori M12 femmina D-coding + 1 connettore M12 maschio (alimentazione)

### RIFERIMENTI

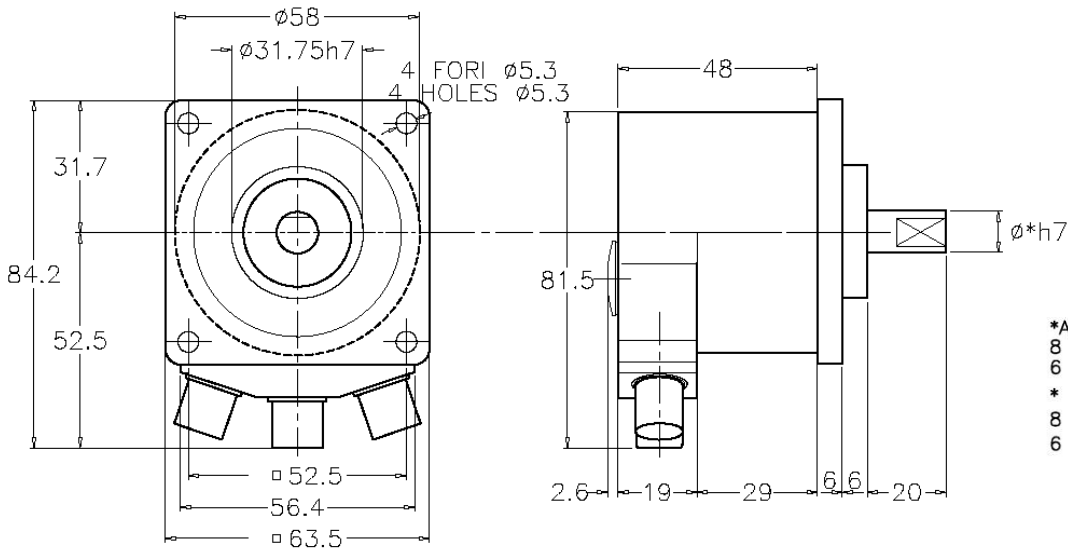
MANUALI, SOFTWARE e DISEGNI DIMENSIONALI scaricabili all'indirizzo:

<https://www.elap.it/it/encoder-assoluti/encoder-mem-bus-ethernet-ip/>



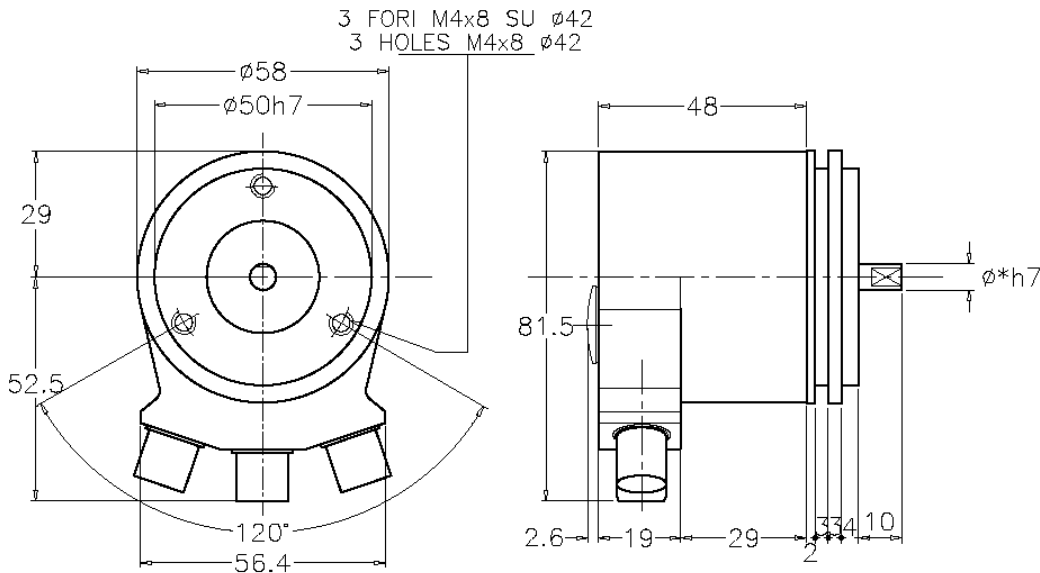
**MEM620-BUS EtherNet/IP™**

Ref.M2079



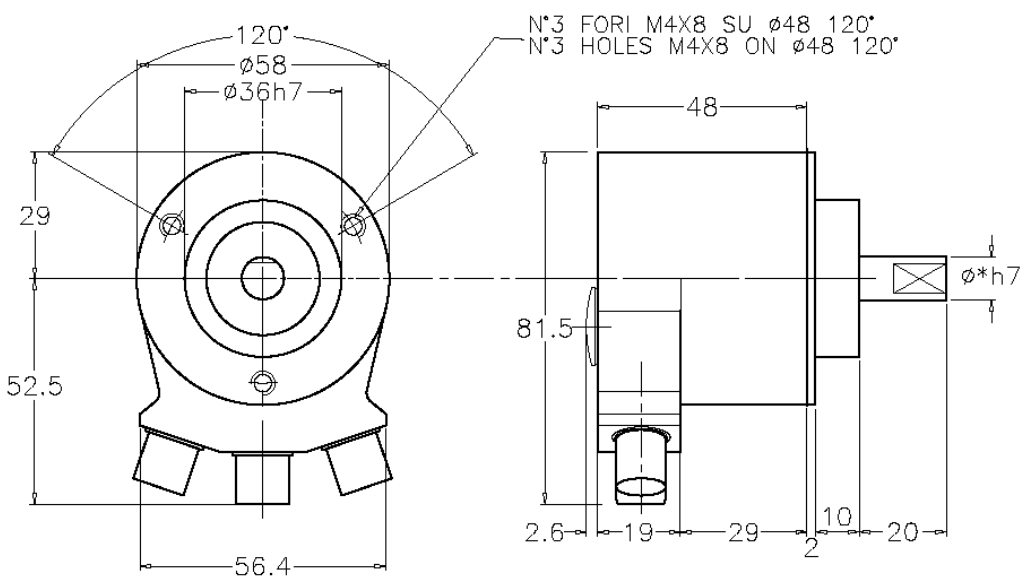
\*ALBERO DISPONIBILE NEI  $\phi$   
 8 – 10 lunghezza 20mm  
 6 lunghezza 10mm  
 \* AVAILABLE SHAFT DIAMETERS  
 8 – 10 length 20mm  
 6 length 10mm

**MEM520-BUS EtherNet/IP™**



\*ALBERO DISPONIBILE NEI  $\phi$   
 8 – 10 lunghezza 20mm  
 6 lunghezza 10mm  
 \* AVAILABLE SHAFT DIAMETERS  
 8 – 10 length 20mm  
 6 length 10mm

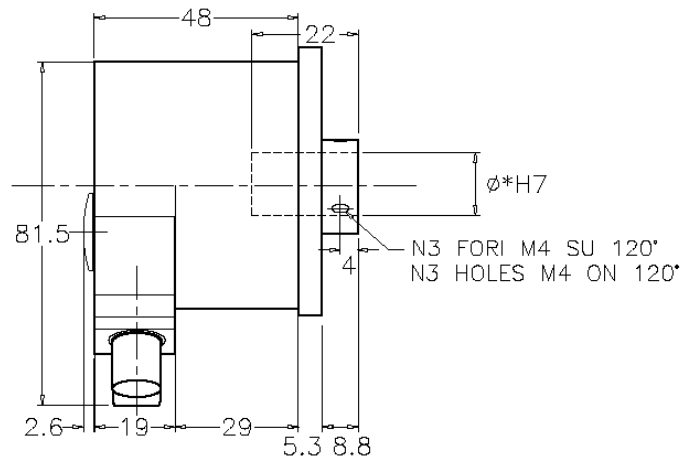
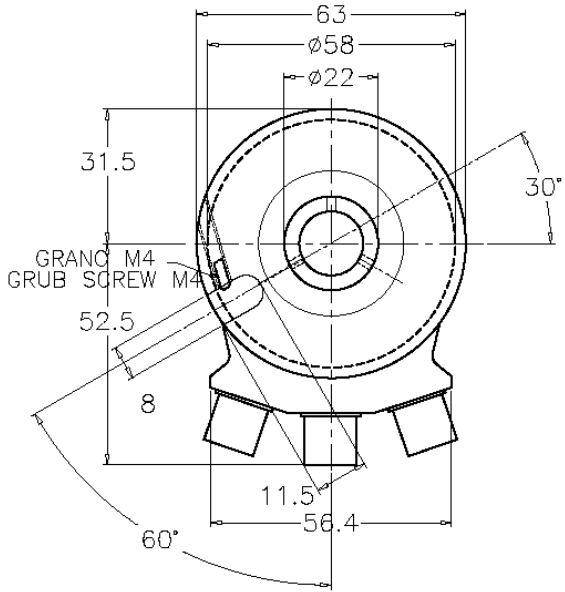
**MEM540-BUS EtherNet/IP™**



\*ALBERO DISPONIBILE NEI  $\phi$   
 8 – 10 lunghezza 20mm  
 6 lunghezza 10mm  
 \* AVAILABLE SHAFT DIAMETERS  
 8 – 10 length 20mm  
 6 length 10mm

**MEM440-BUS EtherNet/IP™**

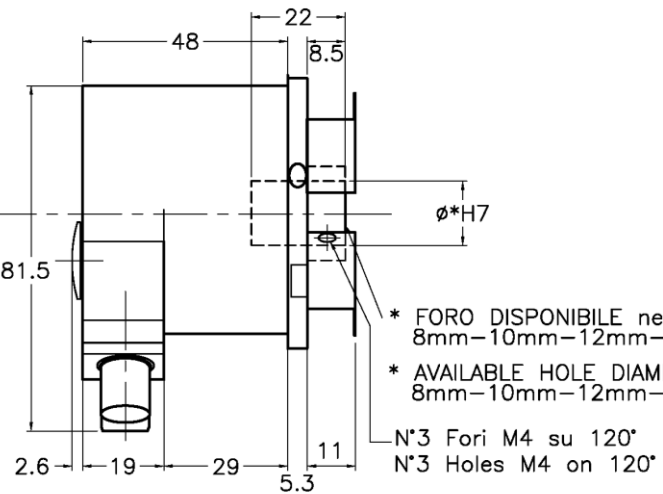
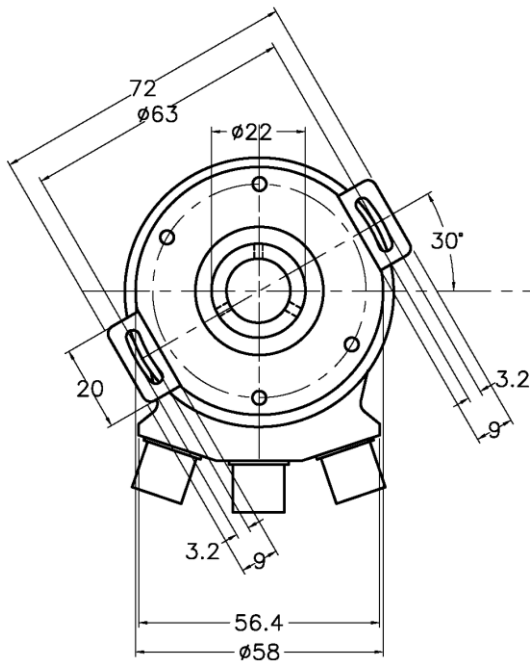
Ref.M2079



\*FORO DISPONIBILE NEI  $\varnothing$   
 8 - 10 - 12 - 14 - 15mm  
 \* AVAILABLE HOLES DIAMETER  
 8 - 10 - 12 - 14 - 15mm

**MEM450-BUS EtherNet/IP™**

Ref.M2080



\* FORO DISPONIBILE nei diametri  
 8mm-10mm-12mm-14mm-15mm  
 \* AVAILABLE HOLE DIAMETERS  
 8mm-10mm-12mm-14mm-15mm  
 N°3 Fori M4 su 120°  
 N°3 Holes M4 on 120°



# elap MEM-BUS EtherNet/IP™

## QUICK REFERENCE GUIDE

EtherNet/IP™



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### MEM-BUS EtherNet IP ENCODER PROFILE

- Ref IEC61784-1 Device profile: **CIP™ Protocol, encoder profile 22H**
- Physical layer: EtherNet/IP® 100Base-TX, Fast Ethernet, ISO/IEC 8802-3
- Output code: Binary
- Cycle time ≥ 1 ms • Transmission rate: 100 Mbit/s
- Transmission: Cable CAT-5, shielded (STP), ISO/IEC 11801

### MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

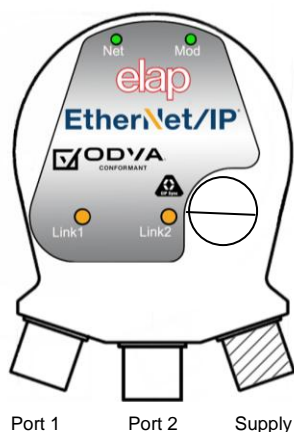
MEM-Bus 620/520/540 440/450

• Materials: case shaft	Aluminium	Stainless steel
• Weight	500 g ca.	
• Shaft/Hollow shaft 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	IP67 – IP65 shaft side	
• Operating temperature	-30 ÷ 70°C	
• Ambient Temperature (UL certification)	Max. 60°C	
• Stocking temperature	-30 ÷ 85°C	

### ELECTRICAL & OPERATING SPECIFICATIONS

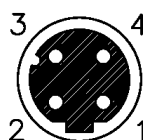
• Operating principle	Magnetic
• Resolution/revolution	8192 steps/rev – 13 bit
• Revolutions no. (multiturn)	65536 - 16 bit
• Initializing time	< 1 s
• Data memory	>20 years No motion – power off
• Fieldbus	EtherNet/IP™
• Supply	10 ÷ 30 Vdc Protection against polarity reversal
• Power consumption	2 W
• Accuracy	± ½ LSB
• Connection	2 M12 female connectors +1 M12 male connector
• Interference immunity	EN 61000-6-2
• Emitted interference	EN61000-6-4

### CONNECTIONS



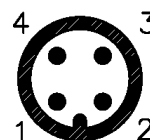
Connector Port1 and Port2  
D-code female M12 connector

Pin	Signal
1	Tx+
2	Rx+
3	Tx-
4	Rx-



Supply connector  
A-code male M12 connector

Pin	Signal
1	+Vsupply (10–30Vdc)
2	N.C.
3	GND (0V)
4	N.C.



Connection by 2 M12 D-coding female connectors + 1 M12 male (supply)

### REFERENCES

MANUALS, SOFTWARE and DIMENSIONAL DRAWINGS DOWNLOAD AT:

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



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