



CERTIFICATION NO. Z10989

MEM620-BUS



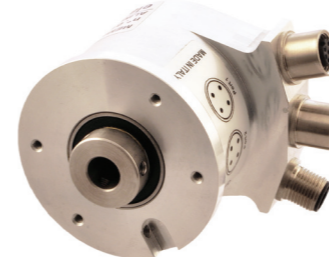
MEM540-BUS



MEM520-BUS



MEM440-BUS



MEM450-BUS



ORDERING INFORMATION

TYPE

- MEM620-Bus - Square flange 63.5 x 63.5 mm
- MEM540-Bus - Round flange Ø 58 mm CLAMPING FLANGE
- MEM520-Bus - Round flange Ø 58 mm SYNCHRO FLANGE
- MEM440-Bus - Blind hollow shaft for motor coupling
- MEM450-Bus - Blind hollow shaft, fixing by elastic support

INTERFACE

- PNT - PROFINET

NO. OF TURNS

- M - Multiturn

SHAFT/JOINT HOLE Ø

- 6 mm
- 8 mm
- 10 mm
- 12 mm
- 14 mm
- 15 mm

MEM540-BUS_PNT_M_10

PROFINET COMMUNICATION PROTOCOL

Ethernet-based communication underwent a huge development in recent years. **PROFINET communication protocol**, in particular, has become the **leading standard in industrial field**, thanks to its high performance in **safety, accuracy and data transmission speed**.

MEM-BUS PROFINET encoders grant:

- Rapid data transfer
- System state diagnostic
- Early error detection
- Network topology configuration
- Easy operation through user telegram 860
- Easy cabling and installation
- Compact size

ELECTRICAL & OPERATING SPECIFICATIONS

Operating principle	Magnetic
Resolution/revolution	8192 steps/rev – 13 bit
Revolutions no.	65536 - 16 bit
Initializing time	< 1s
Data memory	> 20 years (No motion – power off)
Fieldbus	PROFINET
Supply	10 ÷ 30 Vdc Protection against polarity reversal
Power consumption	2,5 W
Accuracy	± ½ LSB
Connection	2 M12 D-coding female connectors + 1 M12 A-coding male connector
Interference immunity	EN 61000-6-2
Emitted interference	EN61000-6-4

MECHANICAL & ENVIRONMENTAL SPECIFICATIONS

Type:	520 - 540 - 620	440 - 450
Materials: case shaft	Aluminium / Stainless steel	
Weight	500 g ca.	
Shaft/joint hole Ø (mm)	6, 8, 10	8, 10, 12, 14, 15
Revolutions/minute	6000	
Starting torque	≤ 0,8 Ncm	
Inertia	≤ 25 g cm ²	
Max load	80 N axial/100 N radial	
Vibrations resistance (10÷2000 Hz)	100 m/sec ²	
Shock (11 ms)	50 G	
Protection degree	IP67 – IP65 shaft side	
Operating temperature	-30 ÷ 70°C	
Stocking temperature	-30 ÷ 85°C	

ENCODER PROFILE

- Encoder Profile V4.1 version 3.162
- Application class 3 – 4
- RT real-time & IRT real-time isochronous transmission mode
- Parameter entering via TCP/IP
- Standard Telegrams 81, 82, 83, 84 –User Telegram 860

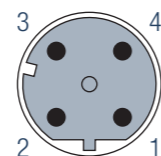
SETTABLE PARAMETERS

- Steps/revolution
- Preset
- Revolutions number
- Rotation direction

CONNECTIONS

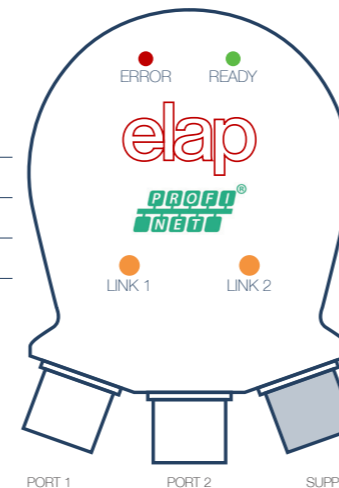
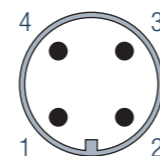
PROFINET connectors (port 1 and 2)
M12 female type, D code

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



SUPPLY CONNECTOR
M12 male type, A code

Pin	Signal
1	+ Supply voltage (10-30 Vdc)
2	N.C.
3	GND (0V)
4	N.C.



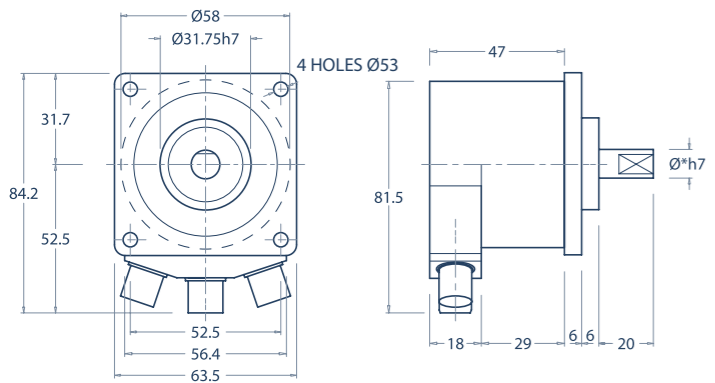
OPERATION & PROGRAMMING

The encoder **MEM-BUS PROFINET** can be software run by means of **standard telegrams 81, 82, 83 and 84**, or by means of the **simplified telegram 860**.

- **Simplified telegram 860:** Perfectly similar to PROFIBUS telegrams, it provides the **position (32 bit)** and enables to manage the **absolute preset**.
- **Telegram 81:** It provides the **absolute position**, the **factorized preset position** the **position value** or the **possible error**; it allows to **manage the main commands**.
- **Telegram 82:** equivalent to telegram 81, it provides the **16-bit instant speed value**, too.
- **Telegram 83:** equivalent to telegram 82, it provides the **32-bit instant speed value**.
- **Telegram 84:** equivalent to telegram 83, it provides the **64-bit factorized absolute position**

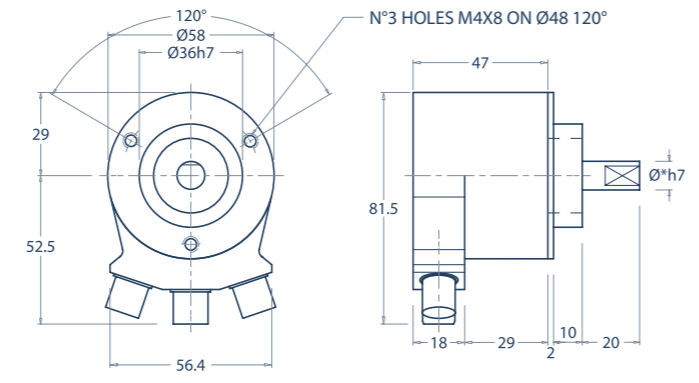
The speed measuring unit (step/s, step/100ms, step/10ms, RPM), selected in the starting parameter entering phase, can be modified run-time.

► MEM620-BUS ref. M1551



*AVAILABLE SHAFT DIAMETERS
8 - 10 mm length 20 mm
6 mm length 10 mm

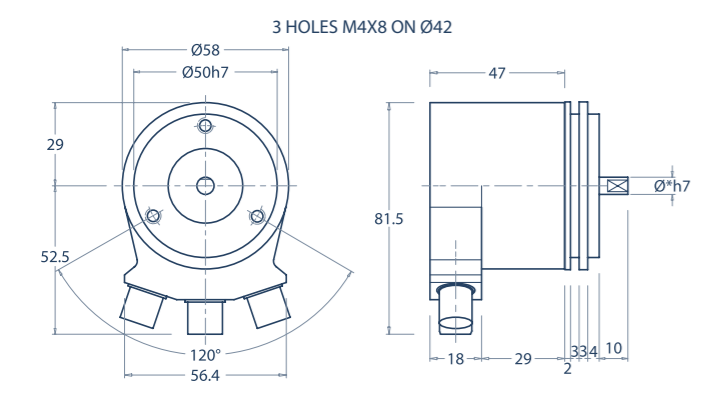
► MEM540-BUS ref. M1551



*AVAILABLE SHAFT DIAMETERS
8 - 10 mm length 20 mm
6 mm length 10 mm

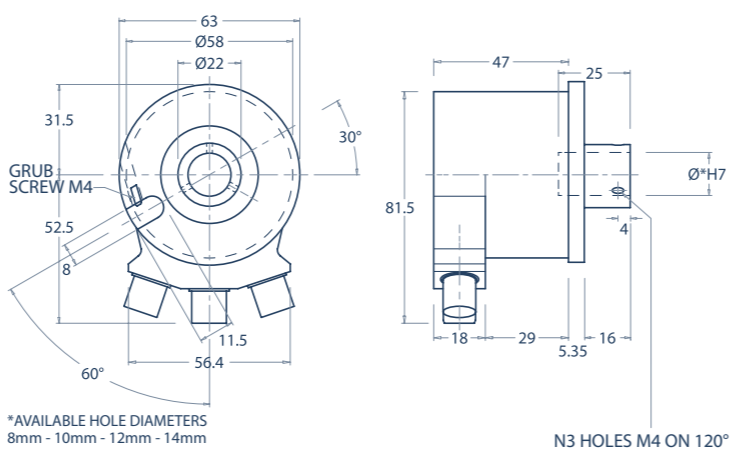


► MEM520-BUS ref. M1551



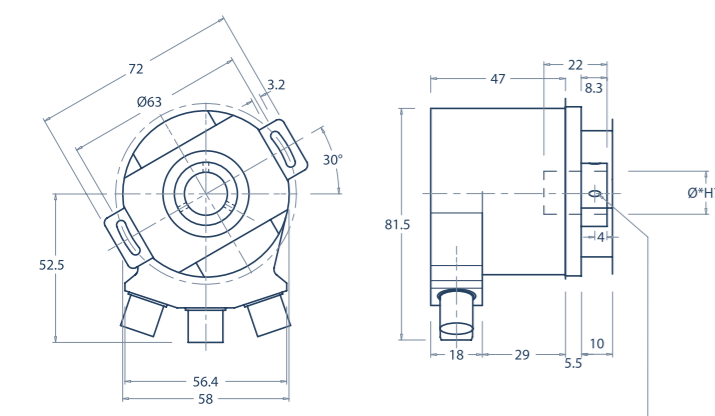
*AVAILABLE SHAFT DIAMETERS
8 - 10 mm length 20 mm
6 mm length 10 mm

► MEM440-BUS ref. M1551



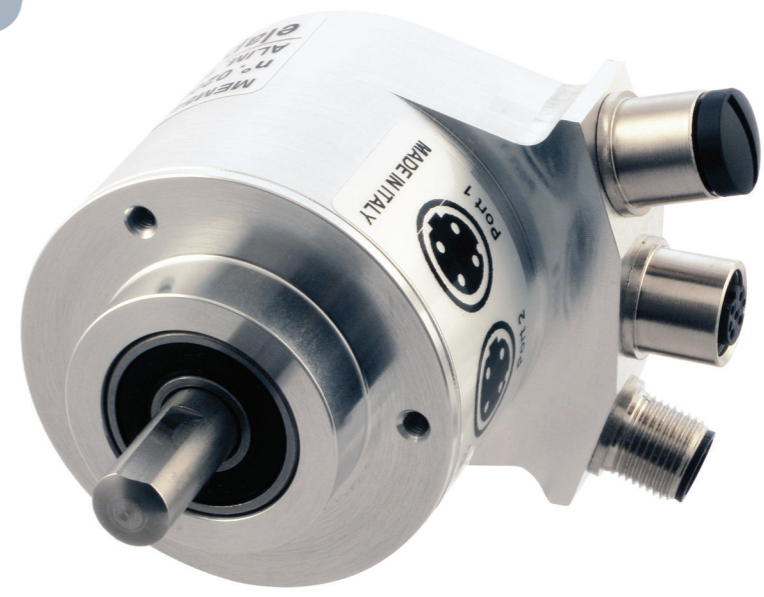
*AVAILABLE HOLE DIAMETERS
8mm - 10mm - 12mm - 14mm

► MEM450-BUS ref. M1553



*AVAILABLE HOLE DIAMETERS
8mm - 10mm - 12mm - 14mm - 15mm

N3 HOLES M4 ON 120°



ABSOLUTE ENCODERS WITH FIELDBUS INTERFACE



ELAP srl
Via Vittorio Veneto, 4 - 20094 Corsico (Mi)
tel. +39 02 451.95.61 - fax +39 02 45.10.34.06
info@elap.it - www.elap.it

