

Code ST04	Project E06-A	Release A	TECHNICAL DATASHEET
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ABSOLUTE OPTICAL ENCODER AEN500 (Fieldbus)

GENERAL FEATURES

- Absolute optical encoder (singleturn or multiturn).
- Output protocol: **CANopen, Profibus, DeviceNet.**
- Aluminium flange and housing.
- Radial output with sealed cable exit or connector M12 8 Pin.



MECHANICAL AND ELECTRICAL CHARACTERISTICS

MECHANICAL <ul style="list-style-type: none"> • Round flange, with centering Ø 50 mm. • Aluminium housing. • Stainless steel shaft. • Ball bearings with special high-sealed screens. • High protection even in harsh environmental conditions. ELECTRICAL <ul style="list-style-type: none"> • Diagnostic LED. • Programmable (resolution, offset, preset, direction). • Output data: speed, acceleration. 	Cod. AEN500	
	Resolution	10-16 Bit Singleturn 12 Bit Multiturn
	Max. rotating speed	continuous 10000 rpm momentary 12000 rpm
	Max. shaft load	40 N (axial) - 60 N (radial)
	Shaft diameter (mm)	Ø 6
	Operating temperature	-40 °C + 85 °C
	Storage temperature	-40 °C + 85 °C
	Vibration resistance (EN 60068-2-6)	100 m/s ² (10 ÷ 500 Hz)
	Shock resistance (EN 60068-2-27)	1000 m/s ² (6 ms)
	Protection class (EN 60529)	IP 64 standard IP 67 optional
	Torque	0.5 Ncm
	Moment of inertia	3.8 x 10 ⁻⁶ kgm ²
	Power supply	10 ÷ 30 V ± 5%
	Current consumption	220 mA (SG), 250 mA (MG)
	Protocol	Profibus, CANopen, DeviceNet
	Output code	Binary
	Electrical connections	see related table
	Weight	350 g (SG), 400 g (MG)

ORDERING CODE

MODEL	TYPE / OUTPUT	RESOL. Bit (MG)	RESOL. Bit (SG)	POWER SUPPLY	Ø SHAFT	CABLE / CONNECTOR	SIGNAL	CONNECTION	OPTIONS
AEN500	M R	12	12	1030	D06	M01	CO	C	V2
	S = singleturn M = multiturn R = radial	00 = if SG 12 = 12 Bit	10 = 10 Bit 12 = 12 Bit 13 = 13 Bit 14 = 14 Bit 16 = 16 Bit*	1030 = 10÷30 V	D06 = ø 6 mm	PC = sealed cable only Mnn = cable length in m CT = M12 8 Pin	CO = CANopen PR = Profibus DN = DeviceNet	No cod.= sealed cable only C = cable n = connection number	No cod.= standard V2 = IP 67

*Only CANopen

Example **ABSOLUTE OPTICAL ENCODER AEN500 MR 1212 1030 D06 M01 CO C V2**

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CABLE AND ELECTRICAL CONNECTIONS

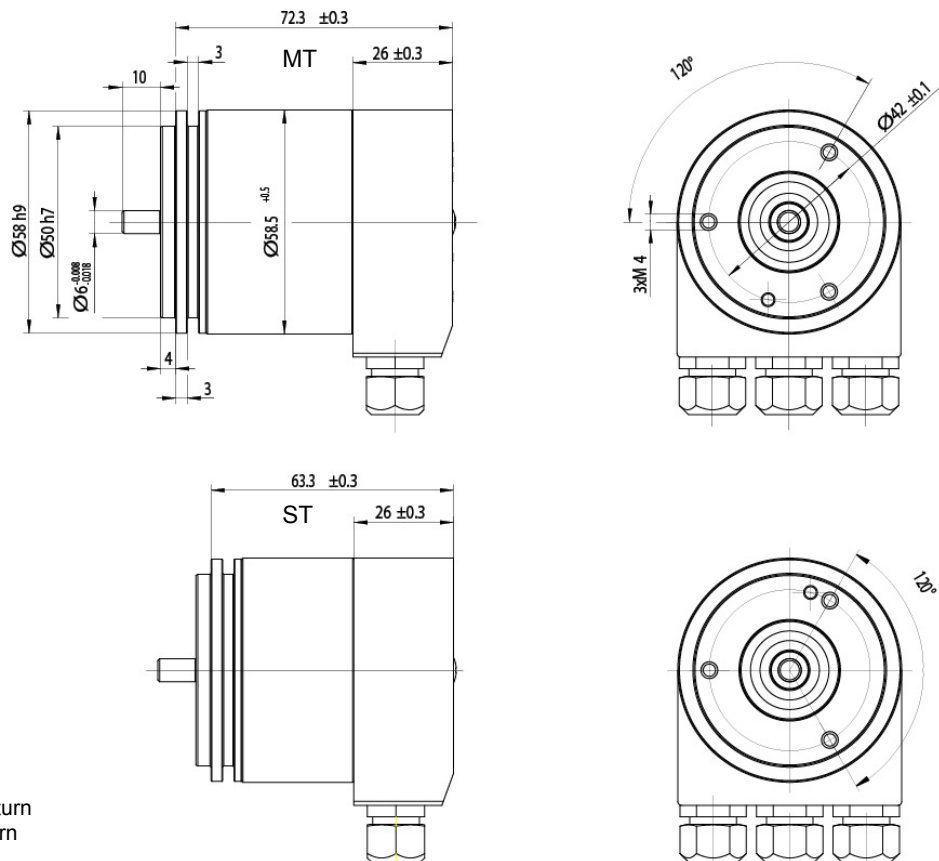
The encoder is supplied with 3 sealed cable exits or, alternatively, with 3 connectors M12 (8 Pin)

CONNECTION (TERMINAL BLOCK) sealed cable output			
N. Pin	CANopen	Profibus	DeviceNet
1	+V in	+V in	+V in
2	0V in	0V in	0V in
3	CAN in -	+V out	CAN-L
4	CAN in +	0V out	CAN-H
5	CAN GND in	B in	DRAIN
6	CAN GND out	A in	DRAIN
7	CAN out +	B out	DRAIN
8	CAN out -	A out	CAN-L
9	0V out		0V out
10	+V out		+V out

CONNECTOR M12 8 PIN (only Profibus)			
N. Pin	Bus In	Power supply	Bus Out
1		+V in	+V out *
2	A in		A out
3		0V in	0V out *
4	B in		B out
5	⊥	⊥	⊥

* The output can be used as power supply for an external bus termination resistor.

DIMENSIONS



WHAT TO AVOID

- Any mechanical working (cutting, drilling, milling, etc.).
- Any modification of the encoder body or shaft.
- Any improper use, not complying with the technical instructions provided by the Manufacturer.
- External shocks or stresses.

