

Code ST04	Project E06-A	Release B	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.



MECHANICAL AND ELECTRICAL CHARACTERISTICS

MECHANICAL <ul style="list-style-type: none"> • Round flange, with centering \varnothing 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)	\varnothing 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
	Current consumption	220 mA (ST), 250 mA (MT)
	Protocol	Profibus, CANopen, DeviceNet
	Output code	Binary
Electrical connections	see related table	
Weight	350 g (ST), 400 g (MT)	

ORDERING CODE

MODEL	TYPE / OUTPUT	RESOL. Bit (MT)	RESOL. Bit (ST)	POWER SUPPLY	\varnothing SHAFT	CONNECTOR	SIGNAL	OPTIONS
AEN500	M R	12	12	1030	D06	PC	CO	V2

S = singleturn	00 = if ST	10 = 10 Bit*	1030 = 10÷30 V	D06 = \varnothing 6 mm	PC = Bus Cover with sealed cable	CO = CANopen	No cod. = standard
M = multiturn	12 = 12 Bit	12 = 12 Bit				PR = Profibus	V2 = IP 67
R = radial		13 = 13 Bit				DN = DeviceNet	
		14 = 14 Bit					
		16 = 16 Bit**					

* Only singleturn version
 ** Only CANopen version

Example ABSOLUTE OPTICAL ENCODER AEN500 MR 1212 1030 D06 PC CO V2

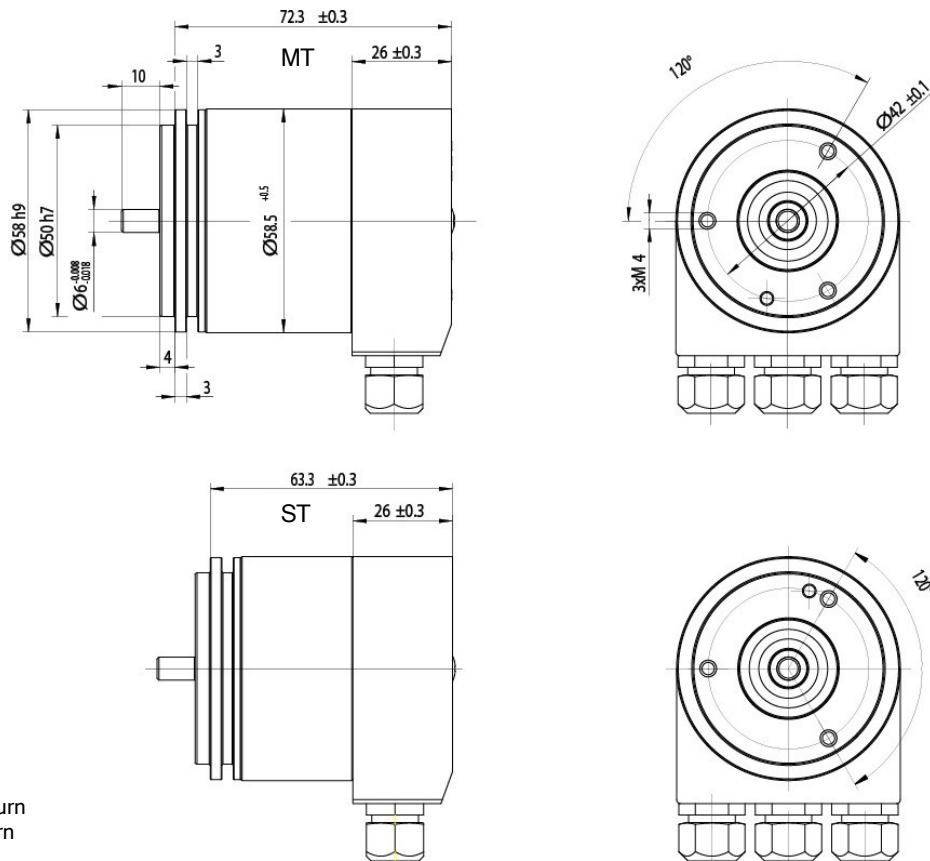
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CABLE AND ELECTRICAL CONNECTIONS

The encoder is supplied with 2 or 3 sealed cable exits.

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

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.

