

Code <b>ST04</b>	Project <b>E06-A</b>	Release <b>B</b>	<b>TECHNICAL DATASHEET</b>
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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

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

### ORDERING CODE

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

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

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

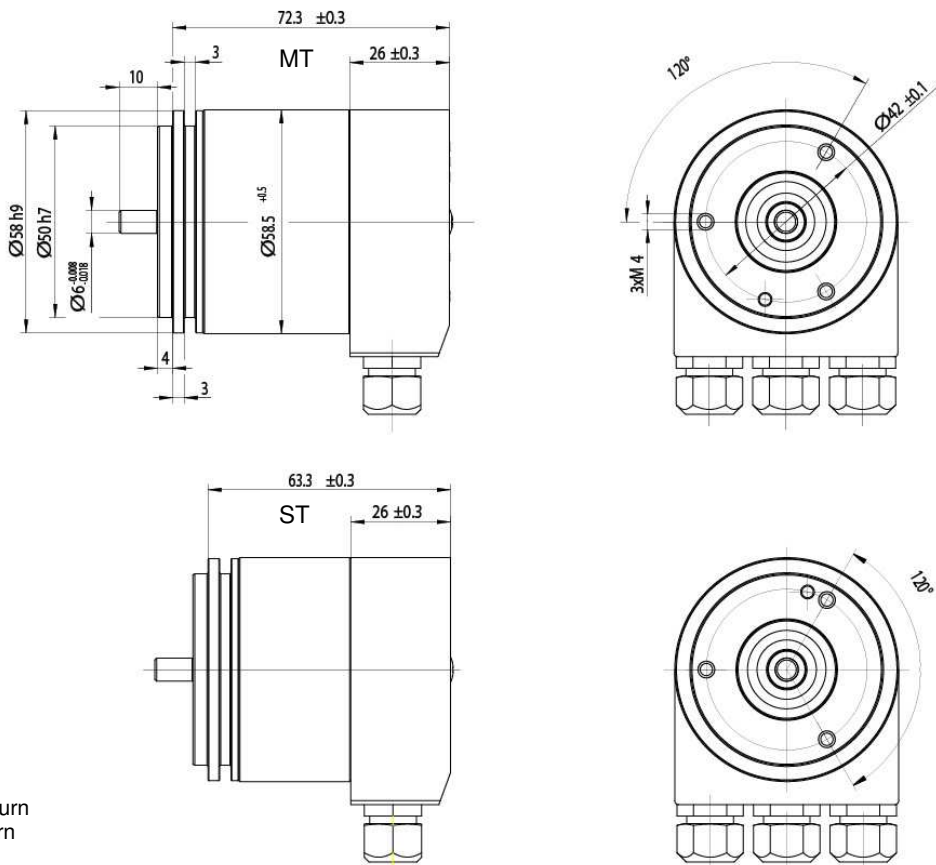
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## CABLE AND ELECTRICAL CONNECTIONS

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.

