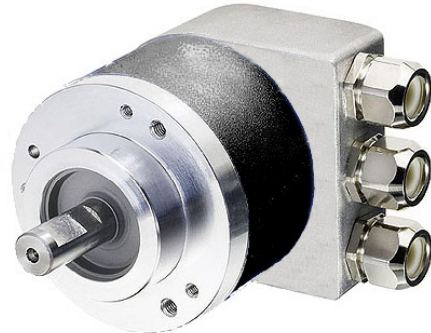


Code <b>ST04</b>	Project <b>E04-A</b>	Release <b>A</b>	<b>TECHNICAL DATASHEET</b>
---------------------	-------------------------	---------------------	----------------------------

## ABSOLUTE OPTICAL ENCODER AEN536 (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

<b>MECHANICAL</b> <ul style="list-style-type: none"> <li>• Round flange, with centering <math>\varnothing</math> 36 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. AEN536</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>	$\varnothing$ 9.52 – $\varnothing$ 10
	<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>	$3.8 \times 10^{-6}$ kgm <sup>2</sup>
	<b>Power supply</b>	10 ÷ 30 V ± 5%
	<b>Current consumption</b>	220 mA (SG), 250 mA (MG)
	<b>Protocol</b>	Profibus, CANopen, DeviceNet
	<b>Output code</b>	Binary
	<b>Electrical connections</b>	see related table
	<b>Weight</b>	350 g (SG), 400 g (MG)

### ORDERING CODE

MODEL	TYPE / OUTPUT	RESOL. Bit (MG)	RESOL. Bit (SG)	POWER SUPPLY	$\varnothing$ SHAFT	CABLE / CONNECTOR	SIGNAL	CONNECTION	OPTIONS
<b>AEN536</b>	<b>M R</b>	<b>12</b>	<b>12</b>	<b>1030</b>	<b>D10</b>	<b>M01</b>	<b>CO</b>	<b>C</b>	<b>V2</b>

**S** = singleturn    **00** = if SG    **10** = 10 Bit    **1030** = 10÷30 V    **952** =  $\varnothing$ 9.52 mm    **PC** = sealed cable only    **CO** = CANopen    **No cod.** = sealed cable only    **No cod.** = standard  
**M** = multiturn    **12** = 12 Bit    **12** = 12 Bit    **D10** =  $\varnothing$ 10 mm    **Mnn** = cable length in m    **PR** = Profibus    **PR** = Profibus    **V2** = IP 67  
**R** = radial    **13** = 13 Bit    **14** = 14 Bit    **CT** = M12 8 Pin    **DN** = DeviceNet    **C** = cable    **n** = connection number  
**16** = 16 Bit\*  
 \*Only CANopen

Example  **ABSOLUTE OPTICAL ENCODER AEN536 MR 1212 1030 D10 M01 CO C V2**

Code <b>ST04</b>	Project <b>E04-A</b>	Release <b>A</b>	<b>TECHNICAL DATASHEET</b>
---------------------	-------------------------	---------------------	----------------------------

## CABLE AND ELECTRICAL CONNECTIONS

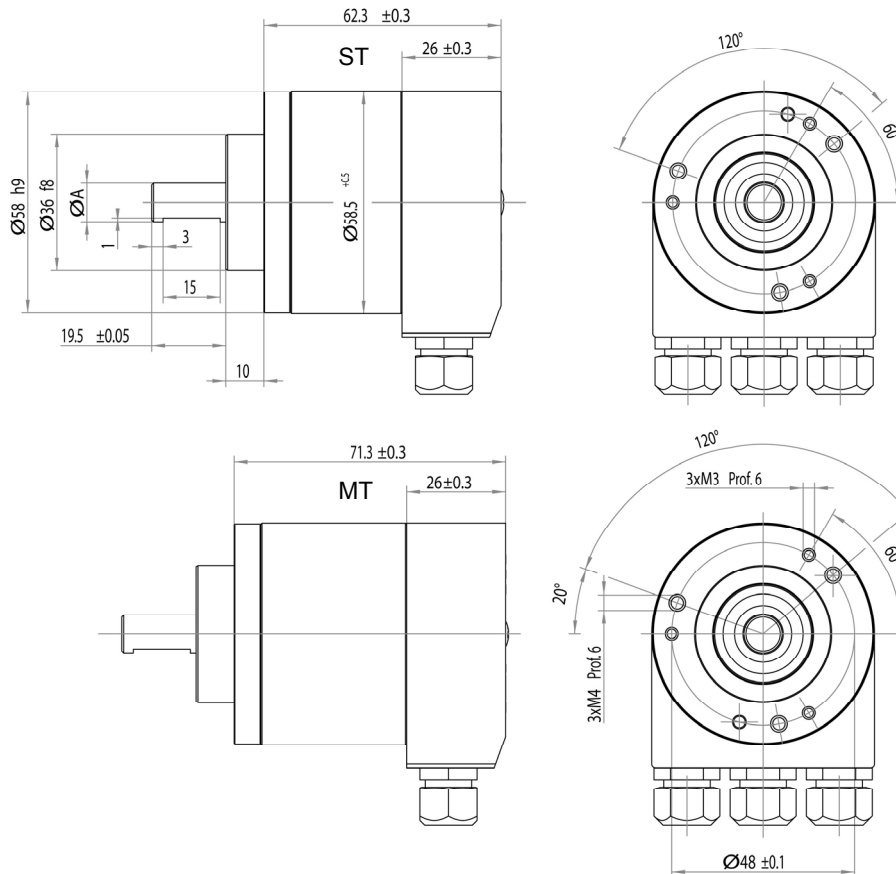
The encoder is supplied with 3 sealed cable exits or, alternatively, with 3 connectors M12 (8 Pin)

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



ST = Singleturn  
MT = Multiturn

## 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.

