

Code ST04	Project E12-A	Release A	TECHNICAL DATASHEET
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ABSOLUTE OPTICAL ENCODER AEN58SC (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"> • Elastic flange. • 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. AEN58SC	
	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 9.52 - Ø 10 - Ø 12
	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
	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	Ø SHAFT	CONNECTOR	SIGNAL	OPTIONS
AEN58SC	M R	12	12	1030	D10	PC	CO	

S = singleturn **00** = if ST **10** = 10 Bit* **1030** = 10-30 V **952** = ø 9.52 mm **PC** = Bus Cover with sealed cable **CO** = CANopen **No cod.** = standard
M = multiturn **12** = 12 Bit **12** = 12 Bit **D10** = ø 10 mm **D10** = ø 10 mm **PR** = Profibus
R = radial **13** = 13 Bit **D12** = ø 12 mm **DN** = DeviceNet
14 = 14 Bit
16 = 16 Bit**

* Only singleturn version
 ** Only singleturn CANopen version

Example  **ABSOLUTE OPTICAL ENCODER AEN58SC MR 1212 1030 D10 PC CO**

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ELECTRICAL CONNECTIONS

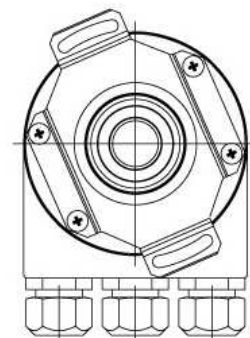
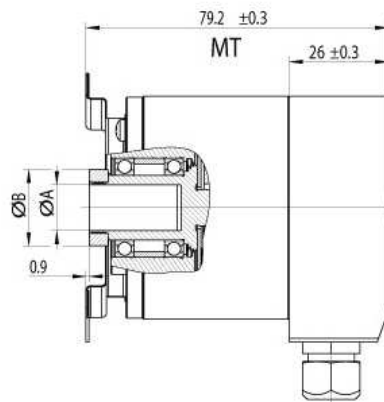
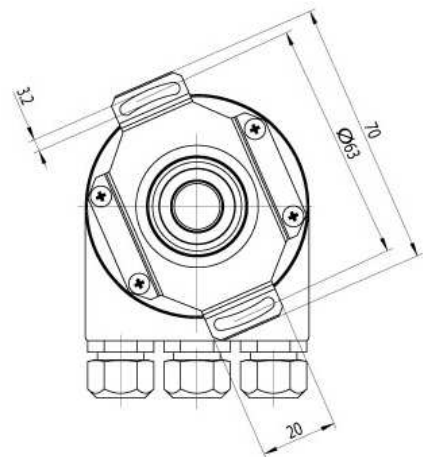
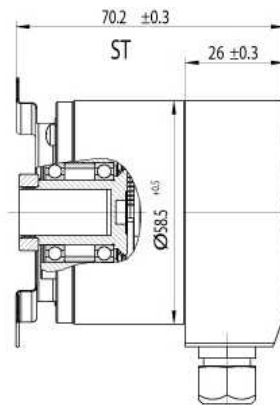
The encoder is supplied with 3 sealed cable exits.

CONNECTION (TERMINAL BLOCK)			
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

	DIMENSIONS IN mm		
	9.52 ^{+0.012}	10 ^{+0.012}	12 ^{+0.012}
Hollow shaft Ø A	9.52 ^{+0.012}	10 ^{+0.012}	12 ^{+0.012}
Connecting shaft Ø	9.52 _{g7}	10 _{g7}	12 _{g7}
Clamping ring Ø B	18	18	20
L min.	15	15	18
L max.	20	20	20
Shaft code	952	D10	D12

L = inside length of connecting shaft



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.

