



Stainless steel housing
 Solid mechanical construction
 Protection to IP 67
 SMD technology
 Electronic preset



Robust Encoder AWG 101 / EAM 58 Profibus / Canbus

Optical absolute encoder AWG101 with Profibus-DP Class 2, CANopen® or Device Net For operation at rough conditions, Stainless steel housing Ø 100 x 160 mm, Optional air-cooling, electrical heating against condensing of humidity, Protection IP 67

Resolution

Resolution (Steps/360°):

4096 = 12 bit

8192 = 13 bit

65536 = 16 bit

Measuring range

Measuring range

Single-Turn

1 turn

Multi-Turn

4096 Umdrehungen = 12 bit

16384 Umdrehungen = 14 bit

Type explanation

AWG101 EAM58-30B-30-PB

Robust Encoder	AWG101
Stainless steel housing	Yes
Encoder type	Absolute
Flange diameter	ø 100 mm
Case diameter	ø 100 mm
Number of bits	12 = 12 bits x 1 turn 13 = 13 bits x 1 turn 16 = 16 bits x 1 turn 24 = 12 bits x 4096 turns 25 = 13 bits x 4096 turns 28 = 16 bits x 4096 turns 26 = 12 bits x 16384 turns 27 = 13 bits x 16384 turns 30 = 16 bits x 16384 turns
Single-turn	Yes
Multi-turn	Yes
Electronic adjustment	Yes
Supply voltage	30 = 10..30 VDC
Interface	PB = Profibus CO = CANopen® DN = Device Net
Shaft diameter	ø 10 mm

Technical data

Mechanical data

Rotational speed	≤ 5000 min ⁻¹
Breakaway torque	≤ 15 Ncm
Loading of bearings	1500 N radial 1000 N axial
Weight	≤ 6 kg
Case	Stainless steel 1.43.01 / AISI 304
Sealings	Viton

Environmental conditions

Vibration	100 ms ⁻² (50 Hz / 1h)
Shock	300 ms ⁻² (11 ms)
Operating temperature	0 ... +70°C standard -40 ... +125°C optional
Storage temperature	-40 ... +85°C
Atmospheric humidity	≤ 95% r.h.
Protection class	IP 67 DIN 40050/IEC 144

Electrical data

Scanning type	Optical, without contact
Transmitter, infrared	LED
Receiver	Photo-Array
Scanning frequency LSB	800 kHz
Measurement accuracy	±½ LSB (12 bit) ± 1 LSB (13 bit) ± 2 LSB (16 bit)
Supply voltage	V _{cc} = 10...30 VDC
Power consumption	≤ 100 mA (V _{cc} = 24 V)

Electrical connections

Profibus

Interface	RS485 with optocoupler
Clock	max. 12 MBaud

Device Net

Interface	CAN Transceiver ISO/DIS 11898
Clock	125, 250, 500 kBaud

AWG options

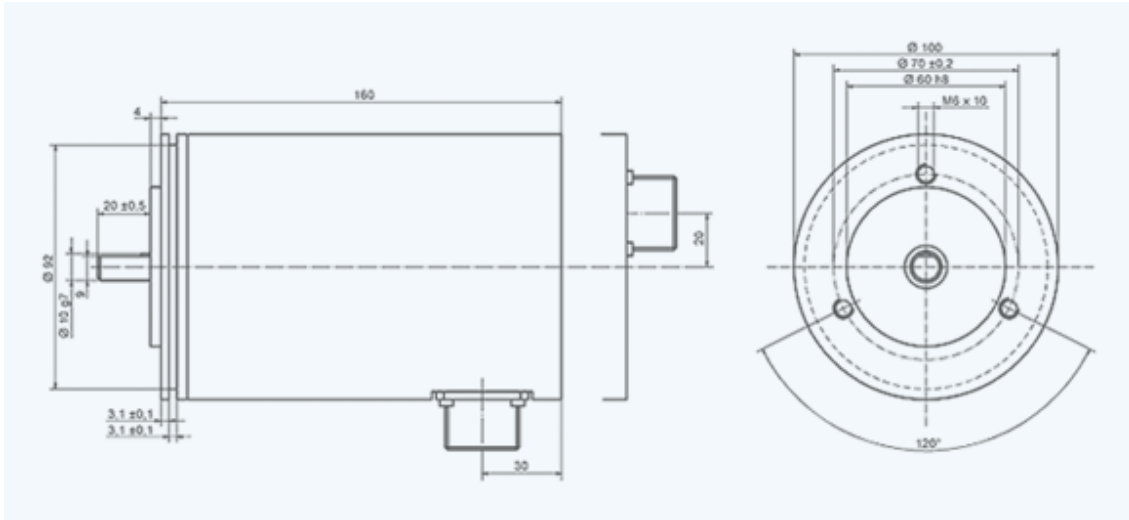
Electrical heating

Temperature control	Thermostat +5° / +15°C
Power consumption	18 W (12 V / 1,5 A) 72 W (24 V / 3,0 A)

Forced-air cooling

Pressure reducing valves	1 bar, input and output
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Outline drawing



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