



Absolut Encoder EAM 58 CANopen[®] / Device Net

Optical absolute multi-turn shaft encoder of high resolution

Resolution

Resolution (Steps/360°):

4096 Schritte/360° = 12 bit	8192 Schritte/360° = 13 bit	65536 Schritte/360° = 16 bit
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Measuring range

Measuring range

Single-Turn	1 Umdrehung
Multi-Turn	4096 Umdrehungen = 12 bit 16384 Umdrehungen = 14 bit

Type explanation

EAM 58-30B-30-CO

Encoder type	Absolute
Flange type	Servo- / Klemmflansch
Flange diameter	ø 58 mm
Case diameter	ø 58 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	CO = CANopen [®] DN = Device Net
Shaft diameter	ø 10 mm

Technical data

Mechanical data

Rotational speed	? 12.000 min ⁻¹ (Single-turn) ? 6.000 min ⁻¹ (Multi-turn)
Torque	? 3 Ncm
Moment of inertia	30 g cm ²
Loading of bearings	110 N radial 40 N axial
Operational life of ball bearings	> 2 x 10 ⁵ h (1000 min ⁻¹ , EAMS 58) > 1 x 10 ⁵ h (1000 min ⁻¹ , EAM 58)
Weight	? 0,7 kg

Environmental conditions

Vibration	100 m/s ² (10 ... 1000 Hz)
Shock	300 m/s ² (11 ms)
Operating temperature	-40 ... +85°C
Storage temperature	-40 ... +85°C
Atmospheric humidity	? 98% r.h.
Protection class	IP 65 (DIN 40050/IEC 144) IP 66 (optional)

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

Device Net

Interface	CAN Transceiver ISO/DIS 11898
Clock	125, 250, 500 kBaud (Device Net)

