



Solid mechanical construction
 Protection to IP 65, IP 66
 SMD technology
 Electronic preset
 Programmable



Absolut Encoder EAM 58 Interbus

Optical absolute multi-turn shaft encoder of high resolution

Resolution

Resolution (Steps/360°):

4096 Schritte/360° = 12 Bits 8192 Schritte/360° = 13 Bits

Measuring range

Measuring range

| | |
|-------------|----------------------------|
| Single-Turn | 1 Umdrehung |
| Multi-Turn | 4096 Umdrehungen = 12 Bits |

Type explanation

EAM 58-24B-30-IBS

| | |
|-----------------|--|
| 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 24 = 12 bits x 4096 turns 25 = 13 bits x 4096 turns |
| Single-turn | Yes |
| Multi-turn | Yes |
| Supply voltage | 30 = 10..30 VDC |
| Interface | IBS = Interbus |
| Shaft diameter | ø 10 mm |

Technical data

Mechanical data

| | |
|-----------------------------------|---|
| Rotational speed | $\leq 12.000 \text{ min}^{-1}$ (Single-turn) $\leq 6.000 \text{ min}^{-1}$ (Multi-turn) |
| Torque | $\leq 3 \text{ Ncm}$ |
| Moment of inertia | 30 g cm^2 |
| Loading of bearings | 110 N radial 40 N axial |
| Operational life of ball bearings | $> 2 \times 10^5 \text{ h}$ (1000 min^{-1} , EAMS 58) $> 1 \times 10^5 \text{ h}$ (1000 min^{-1} , EAM 58) |
| Weight | $\leq 0,6 \text{ kg}$ |

Environmental conditions

| | |
|-----------------------|---|
| Vibration | 100 m/s^2 (10 ... 1000 Hz) |
| Shock | 300 m/s^2 (11 ms) |
| Operating temperature | -0 ... +60 °C |
| Storage temperature | -40 ... +85 °C |
| Atmospheric humidity | $\leq 98\% \text{ r.h.}$ |
| Protection class | IP 65 (DIN 40050/IEC 144) IP 66 (optional) |

Electrical data

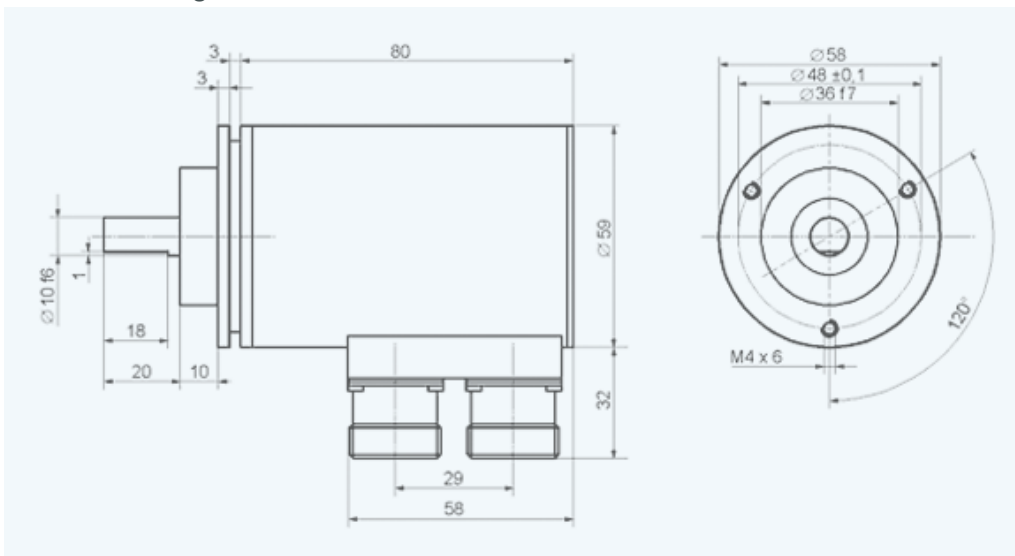
| | |
|------------------------|--|
| Scanning type | Optical, without contact |
| Transmitter, infrared | LED |
| Receiver | Photo-Array |
| Scanning frequency LSB | 800 kHz |
| Measurement accuracy | $\pm \frac{1}{2} \text{ LSB}$ (12 bit) $\pm 1 \text{ LSB}$ (13 bit) |
| Supply voltage | $V_{cc} = 10 \dots 30 \text{ VDC}$ |
| Power consumption | $\leq 150 \text{ mA}$ ($V_{cc} = 24 \text{ V}$) |

Electrical connections

Interbus

| | |
|-----------|---------------------------|
| Interface | RS485 with optocoupler |
| Clock | max. 500 kBaud or 2 MBaud |

Outline drawing



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