

## Technical data sheet

### Rotary encoder

Part no.: 50139587

EI 1058-S10x20C-1024T-M23A

#### Contents

- Technical data
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- Electrical connection

For illustration purposes only



## Technical data

### Basic data

|        |                            |
|--------|----------------------------|
| Series | EI 1xxx                    |
| Type   | Incremental rotary encoder |

### Measurement data

|                      |             |
|----------------------|-------------|
| Max. operating speed | 6,000 r/min |
| Resolution           | 1,024 p/r   |

### Electrical data

|                    |                                                         |
|--------------------|---------------------------------------------------------|
| Protective circuit | Polarity reversal protection<br>Short circuit protected |
|--------------------|---------------------------------------------------------|

### Performance data

|                      |                |
|----------------------|----------------|
| Supply voltage $U_B$ | 5 ... 28 V, DC |
| Open-circuit current | 0 ... 150 mA   |

### Time behavior

|                     |            |
|---------------------|------------|
| Switching frequency | 300,000 Hz |
|---------------------|------------|

### Interface

|      |     |
|------|-----|
| Type | TTL |
|------|-----|

### Connection

|                       |                              |
|-----------------------|------------------------------|
| Number of connections | 1 Piece(s)                   |
| Connection 1          |                              |
| Function              | Signal OUT<br>Voltage supply |
| Type of connection    | Connector                    |
| Thread size           | M23                          |
| Type                  | Male                         |
| Material              | Metal                        |
| No. of pins           | 12 -pin                      |
| Plug outlet           | Axial                        |

### Mechanical data

|                  |                 |
|------------------|-----------------|
| Housing material | Metal           |
| Metal housing    | Aluminum        |
| Flange type      | Clamping flange |

### Shaft

|                                      |         |
|--------------------------------------|---------|
| Design                               | Shaft   |
| Dimension ( $\varnothing \times L$ ) | 10 mm   |
| Dimension ( $\varnothing \times L$ ) | 20 mm   |
| Start-up torque                      | 0.5 N·m |
| Shaft load - axial                   | 60 N    |
| Shaft load - radial                  | 120 N   |

### Environmental data

|                                |               |
|--------------------------------|---------------|
| Ambient temperature, operation | -40 ... 70 °C |
| Ambient temperature, storage   | -40 ... 70 °C |

### Certifications

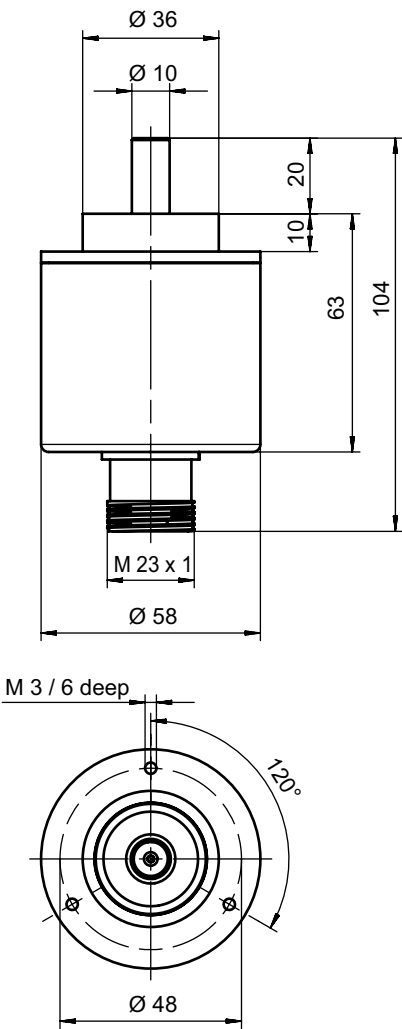
|                                                          |                                             |
|----------------------------------------------------------|---------------------------------------------|
| Degree of protection                                     | IP 65                                       |
| Standards applied                                        | IEC 61000-6-2:2016, IEC 61000-6-4:2016 + A1 |
| Test procedure for vibration in accordance with standard | 10g IEC 68-2-6 (10...2000 Hz)               |

### Classification

|              |          |
|--------------|----------|
| ECLASS 5.1.4 | 27270501 |
| ECLASS 8.0   | 27270501 |
| ECLASS 9.0   | 27270501 |
| ECLASS 10.0  | 27270501 |
| ECLASS 11.0  | 27270501 |
| ECLASS 12.0  | 27270501 |
| ECLASS 13.0  | 27270501 |
| ECLASS 14.0  | 27270501 |
| ECLASS 15.0  | 27270501 |
| ECLASS 16.0  | 27270501 |
| ETIM 5.0     | EC001486 |
| ETIM 6.0     | EC001486 |
| ETIM 7.0     | EC001486 |
| ETIM 8.0     | EC001486 |
| ETIM 9.0     | EC001486 |
| ETIM 10.0    | EC001486 |

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

|                    |                |
|--------------------|----------------|
| Function           | Signal OUT     |
|                    | Voltage supply |
| Type of connection | Connector      |
| Thread size        | M23            |
| Type               | Male           |
| Material           | Metal          |
| No. of pins        | 12 -pin        |
| Plug outlet        | Axial          |

| Pin | Pin assignment |
|-----|----------------|
| 1   | B inverted     |
| 2   | n.c.           |
| 3   | Z              |
| 4   | Z inverted     |
| 5   | A              |
| 6   | A inverted     |

Electrical connection

| Pin | Pin assignment |
|-----|----------------|
| 7   | n.c.           |
| 8   | B              |
| 9   | FE/SHIELD      |
| 10  | GND            |
| 11  | n.c.           |
| 12  | V+             |