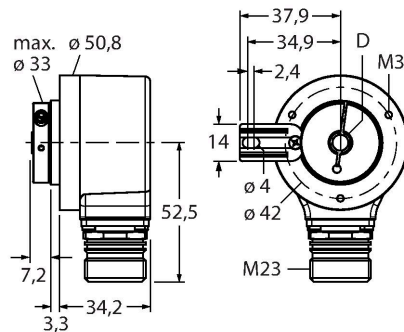


# RI-12H12T-4A2500-12M23

## Incremental Encoder

### Industrial Line



### Features

- Flange with torque stop, Ø 50.8mm
- Hollow shaft, Ø 12mm
- Optical measuring principle
- Shaft material, stainless steel
- Protection class IP67 on housing and shaft side
- -40...+85 °C
- Max. 6000 rpm (continuous operation 3000 rpm)
- 5 VDC
- Male connector, M23, 12-pole
- RS422 with inverted signals
- Pulse frequency max. 300 kHz
- 2500 pulses per revolution

### Technical data

|                                        |                                       |
|----------------------------------------|---------------------------------------|
| Type                                   | RI-12H12T-4A2500-12M23                |
| ID                                     | 1545458                               |
| Measuring principle                    | Optical                               |
| <b>General data</b>                    |                                       |
| Max. rotational speed                  | 6000 rpm                              |
| Moment of inertia of the rotor         | $6 \times 10^{-6} \text{ kgm}^2$      |
| Starting torque                        | < 0.05 Nm                             |
| Output type                            | Incremental                           |
| Resolution incremental                 | 2500 ppr                              |
| <b>Electrical data</b>                 |                                       |
| Operating voltage $U_B$                | 5 VDC                                 |
| No-load current                        | $\leq 90 \text{ mA}$                  |
| Output current                         | $\leq 20 \text{ mA}$                  |
| Short-circuit protection               | yes                                   |
| Wire break/reverse polarity protection | no                                    |
| Pulse frequency max.                   | 300 kHz                               |
| Signal level high                      | min. 2.5 V                            |
| Signal level low                       | max. 0.5 V                            |
| Output function                        | 12-wire, RS422, with inverted signals |
| <b>Mechanical data</b>                 |                                       |
| Flange type                            | Flange with mounting element          |
| Flange diameter                        | Ø 50.8 mm                             |
| Shaft Type                             | Hollow shaft                          |

### Wiring diagram

|    |              |
|----|--------------|
| 1  | B inv.       |
| 2  | $U_B$ sens + |
| 3  | 0 -          |
| 4  | 0 inv. -     |
| 5  | A            |
| 6  | A inv.       |
| 7  | n.c.         |
| 8  | B            |
| 9  | n.c.         |
| 10 | GND          |
| 11 | 0V sens      |
| 12 | $U_B$ +      |
| PH | shield       |

|    |              |
|----|--------------|
| 1  | B inv.       |
| 2  | $U_B$ sens + |
| 3  | 0 -          |
| 4  | 0 inv. -     |
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| 7  | n.c.         |
| 8  | B            |
| 9  | n.c.         |
| 10 | GND          |
| 11 | 0V sens      |
| 12 | $U_B$ +      |
| PH | shield       |

## Technical data

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Shaft diameter D (mm)               | 12                                  |
| Shaft material                      | Stainless steel                     |
| Housing material                    | Die-cast zinc                       |
| Electrical connection               | Connector                           |
|                                     | M23, 12-pole                        |
| Axial shaft load                    | 40 N                                |
| Radial shaft load                   | 80 N                                |
| Environmental conditions            |                                     |
| Ambient temperature                 | -40...+85 °C                        |
| Vibration resistance (EN 60068-2-6) | 300 m/s <sup>2</sup> , 10...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 3000 m/s <sup>2</sup> , 6 ms        |
| Protection class                    | IP67                                |
| Protection class shaft              | IP67                                |