

## EN580E.IL-TT14.GA1H1.04096.K

Through hollow shaft, 4096 pulses per revolution

Article number: 11245995

### Overview

- Size ø58 mm
- Precise optical sensing
- Output signal level HTL
- Pulses per revolution 4096
- High connection flexibility thanks to flexible connector M12



### Technical data

#### Technical data - electrical ratings

|                             |                             |
|-----------------------------|-----------------------------|
| Voltage supply              | 8...30 VDC                  |
| Reverse polarity protection | Yes                         |
| Short-circuit proof         | Yes                         |
| Consumption w/o load        | ≤70 mA                      |
| Pulses per revolution       | 4096                        |
| Phase shift                 | 90 ° ±10°                   |
| Duty cycle                  | 40...60 %                   |
| Reference signal            | Zero pulse, width 90° ±10 % |
| Sensing method              | Optical                     |
| Output frequency            | ≤160 kHz (HTL)              |
| Output signals              | A+, B+, R+, A-, B-, R-      |
| Output stages               | HTL/push-pull               |
| Interference immunity       | EN 61000-6-2                |
| Emitted interference        | EN 61000-6-4                |
| Approval                    | UL-Listing: E217823         |

#### Technical data - mechanical design

|                       |                                                                                 |
|-----------------------|---------------------------------------------------------------------------------|
| Size (flange)         | ø58 mm                                                                          |
| Shaft type            | ø14 mm (through hollow shaft)                                                   |
| Motor shaft tolerance | ± 0.2 mm (axial offset)<br>≤ 0.1 mm (radial offset)<br>≤ 0.1 mm (concentricity) |
| Protection EN 60529   | IP 54 (flange side)<br>IP 65 (housing side)                                     |
| Operating speed       | ≤6000 rpm (+25 °C)                                                              |
| Starting torque       | ≤0.04 Nm                                                                        |
| Material              | Housing: aluminium<br>Solid shaft: stainless steel                              |
| Operating temperature | -25...+100 °C (see general information)                                         |
| Relative humidity     | 95 % non-condensing                                                             |
| Resistance            | EN 60068-2-6 Vibration 10 g, 10-2000 Hz<br>EN 60068-2-27 Shock 100 g, 11 ms     |
| Connection            | Connector M12, 8-pin, flexible                                                  |
| Weight approx.        | 300 g                                                                           |

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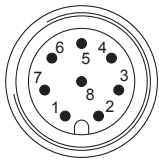
## General information

Self-heating correlated to installation and ambient conditions as well as to electronics and supply voltage must be considered for precise thermal dimensioning. Operating the encoder close to the maximum limits requires measuring the real prevailing temperature at the encoder flange.

## Terminal assignment

### Connector M12, 8-pin

| Pin | Assignment |
|-----|------------|
| 1   | 0 V        |
| 2   | +Vs        |
| 3   | A+         |
| 4   | A-         |
| 5   | B+         |
| 6   | B-         |
| 7   | R+         |
| 8   | R-         |



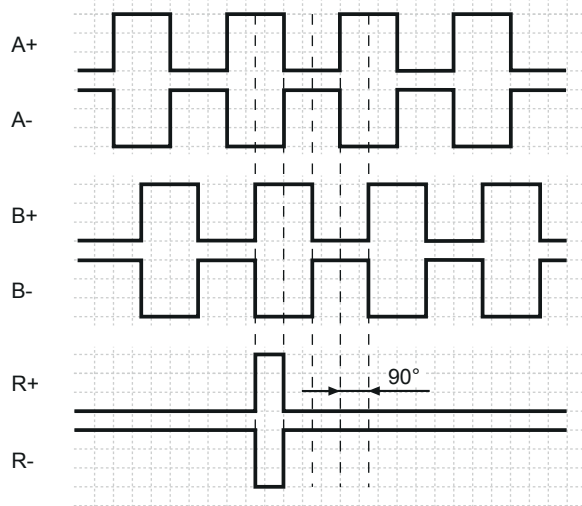
## Trigger level

| Outputs           | TTL/RS422            |
|-------------------|----------------------|
| Output level High | $\geq 2.5 \text{ V}$ |
| Output level Low  | $\leq 0.5 \text{ V}$ |
| Load              | $\leq 20 \text{ mA}$ |

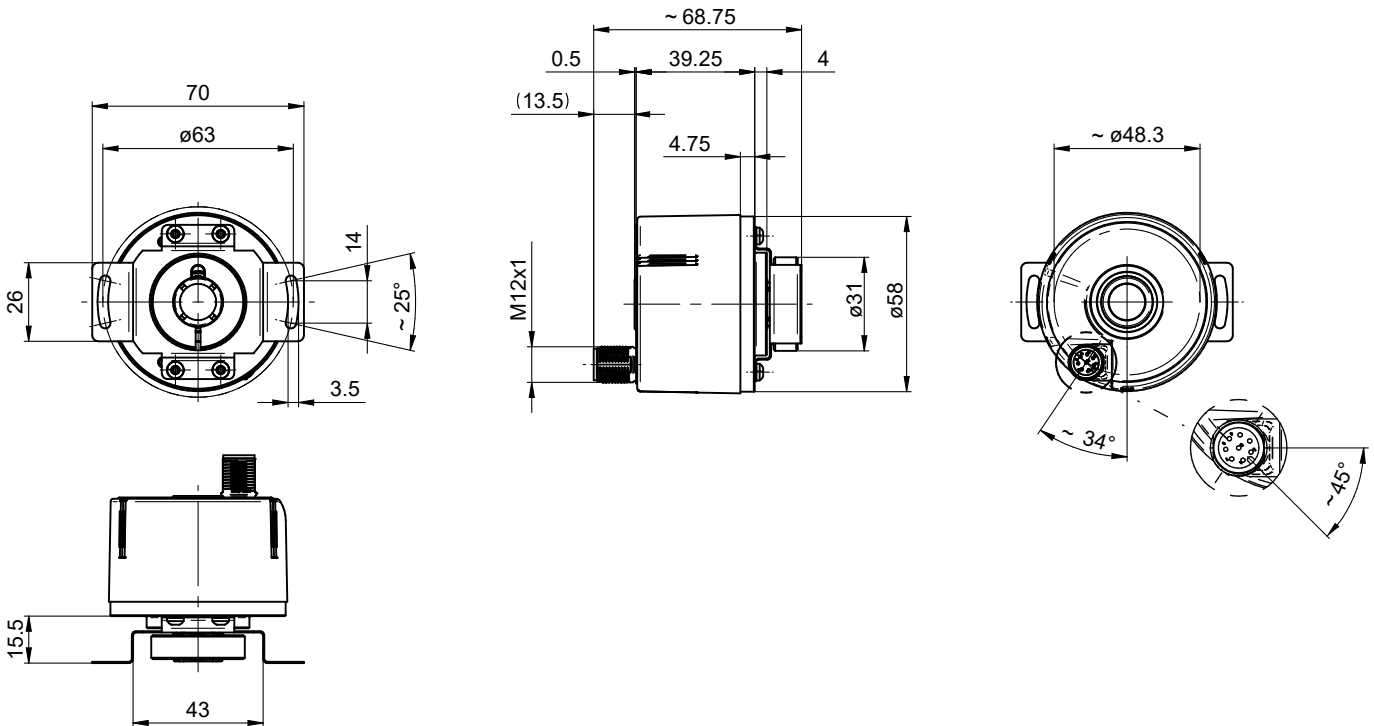
| Outputs           | HTL/Push-pull            |
|-------------------|--------------------------|
| Output level High | $\geq U_B - 3 \text{ V}$ |
| Output level Low  | $\leq 1.5 \text{ V}$     |
| Load              | $\leq 20 \text{ mA}$     |

## Output signals

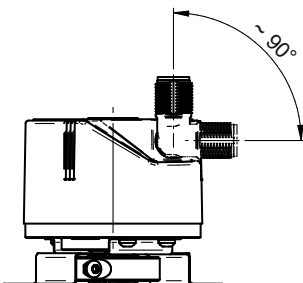
Clockwise rotating direction when looking at flange.



## Dimensions



Through hollow shaft, connector M12



Through hollow shaft, flexible connector M12

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**Accessories****Mounting accessories**

|          |                                            |
|----------|--------------------------------------------|
| 11066083 | Mounting kit 006                           |
| 11073119 | Mounting kit 021                           |
| 11067367 | Mounting kit 028                           |
| 11100198 | Mounting kit 046                           |
| 11113210 | Mounting kit 047                           |
| 11124300 | Mounting kit 048                           |
| 11106627 | Fan cover clip 8 mm                        |
| 11116921 | Insulating sleeve ø10 mm/ø12 mm/25 mm long |
| 11116923 | Insulating sleeve ø12 mm/ø14 mm/25 mm long |