

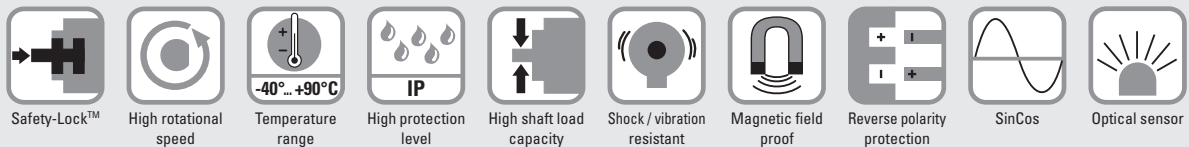
# Incremental encoders

| Standard<br>Motor-Line, optical | Sendix 5834 (tapered shaft) | SinCos |
|---------------------------------|-----------------------------|--------|
|---------------------------------|-----------------------------|--------|



The incremental encoder Sendix 5834 with SinCos interface is particularly suited for applications in the field of Drive and Elevator Technology.

Thanks to their high signal quality, they are optimally suited for further interpolation.



## Powerful

- With incremental SinCos tracks.
- Very high signal quality.
- Encoder specially designed for mounting on direct drives in the elevator technology.

## Flexible

- Stator coupling or expanding coupling.
- Cable or PCB-connector.
- 1024 or 2048 ppr.

| Order code<br>Tapered shaft  | 8.5834<br>Type                                | . X K X X . X X X X<br>a b c d e   |  |
|--|---|--|--|
| <b>a</b> Flange<br>G = with stator coupling, ø 72 mm [2.83"]<br>H = with expanding coupling, ø 65 mm [2.56"] | <b>b</b> Tapered shaft<br>K = ø 10 mm [0.39"] | <b>c</b> Output circuit / supply voltage<br>1 = SinCos / 5 V DC<br>2 = SinCos / 10 ... 30 V DC | <b>d</b> Type of connection<br>E = tangential cable, 1 m PVC<br>F = tangential cable, length PVC see below *)<br>L = with PCB connector<br>(without cable, including sealing cap for tangential cable outlet)<br>*) Available lengths (connection type F):<br>2, 3, 5, 8, 10, 15 m [5.56, 9.84, 16.40, 26.25, 32.80, 49.21']<br>order code expansion .XXXX = length in dm<br>ex.: 8.5834.GK2F.1024.0030 (for cable length 3 m) |
|  |   |  | <b>e</b> Pulse rate<br>1024, 2048  |

| Cables and connectors   | Order no.                    |
|---|------------------------------|
| <b>Preassembled cables</b><br>(suitable for type of connection L)<br>PCB connector (female contacts), 12-pin<br>single ended<br>2 m [6.56'] PVC cable | <b>8.0000.6D91.0002.0097</b> |

Further Kübler cables and connectors can be found at: [kuebler.com/connection-technology](http://kuebler.com/connection-technology)

# Incremental encoders

|   |                                    |               |
|---|------------------------------------|---------------|
| <b>Standard<br/>Motor-Line, optical</b> | <b>Sendix 5834 (tapered shaft)</b> | <b>SinCos</b> |
|---|------------------------------------|---------------|

## Technical data

| Mechanical characteristics                       |   |                 |
|--|---|-----------------|
| <b>Maximum speed</b>                             | 12000 min <sup>-1</sup> , 5000 min <sup>-1</sup> (continuous) |                 |
| <b>Starting torque – at 20 °C [68 °F]</b>        | < 0.01 Nm   |                 |
| <b>Mass moment of inertia</b>                    | 3.0 x 10 <sup>-6</sup> kgm <sup>2</sup>                       |                 |
| <b>Load capacity of shaft</b>                    | radial  | 80 N            |
|  | axial   | 40 N            |
| <b>Weight</b>                                    | approx. 0.45 kg [15.85 oz]                                    |                 |
| <b>Protection acc. to EN 60529</b>               | IP65  |                 |
| <b>Working temperature range</b>                 | -40 °C ... +90 °C [-40 °F ... +194 °F] <sup>1)</sup>          |                 |
| <b>Materials</b>                                 | tapered shaft   | stainless steel |
|  | flange  | aluminum        |
|  | housing   | zinc die-cast   |
|  | cable   | PVC             |
| <b>Shock resistance acc. to EN 60068-2-27</b>    | 2500 m/s <sup>2</sup> , 6 ms                                  |                 |
| <b>Vibration resistance acc. to EN 60068-2-6</b> | 100 m/s <sup>2</sup> , 55 ... 2000 Hz                         |                 |

| SinCos interface           |                   |
|----------------------------|-------------------|
| <b>Max. frequency -3dB</b> | 400 kHz           |
| <b>Signal level</b>        | 1 Vpp (±10 %)     |
| <b>Short circuit proof</b> | yes <sup>2)</sup> |
| <b>Pulse rate</b>          | 1024 / 2048 ppr   |

| Approvals                              |                  |            |
|--|------------------|------------|
| <b>UL compliant</b> in accordance with | File no. E224618 |            |
| <b>CE compliant</b> in accordance with | EMC Directive    | 2014/30/EU |
|  | RoHS Directive   | 2011/65/EU |

| Electrical characteristics                                   |                                 |            |
|--|---------------------------------|------------|
| <b>Supply voltage</b>  | 5 V DC (±5 %) or 10 ... 30 V DC |            |
| <b>Current consumption<br/>(no load)</b>                     | 5 V DC                          | max. 70 mA |
|  | 10 ... 30 V DC                  | max. 45 mA |
| <b>Reverse polarity protection<br/>of the supply voltage</b> | yes                             |            |

## Terminal assignment

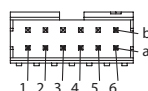
| Output circuit | Type of connection | Cable (isolate unused cores individually before initial start-up) |     |    |    |           |    |           |         |
|----------------|--------------------|---|-----|----|----|-----------|----|-----------|---------|
| 1, 2           | E, F               | Signal:   | 0 V | +V | A  | $\bar{A}$ | B  | $\bar{B}$ | $\perp$ |
|                |                    | Core color:   | WH  | BN | GN | YE        | GY | PK        | shield  |

| Output circuit | Type of connection | PCB connector (male contact), 12-pin |     |    |    |           |    |           |        |        |        |        |        |
|----------------|--------------------|--------------------------------------|-----|----|----|-----------|----|-----------|--------|--------|--------|--------|--------|
| 1, 2           | L                  | Signal:                              | 0 V | +V | A  | $\bar{A}$ | B  | $\bar{B}$ | d.n.c. | d.n.c. | d.n.c. | d.n.c. | d.n.c. |
|                |                    | Pin:                                 | 4b  | 1b | 2a | 5b        | 4a | 3b        | 1a     | 2b     | 3a     | 5a     | 6a     |

+V: Supply voltage encoder +V DC  
 0 V: Supply voltage encoder ground GND (0 V)  
 A,  $\bar{A}$ : Cosine signal  
 B,  $\bar{B}$ : Sine signal  
 d.n.c.: do not connect (used internally)

## Top view of mating side, male contact base

Type of connection L  
 FCI Minitek connector (male contact),  
 double-row, 12-pin (98424-F52-12-LF)



1) Cable version: -30 °C ... +90 °C [-22 °F ... +194 °F] fixed installation.  
 2) Short circuit to 0 V or to output, one channel at a time, supply voltage correctly applied.

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## Dimensions tapered shaft version

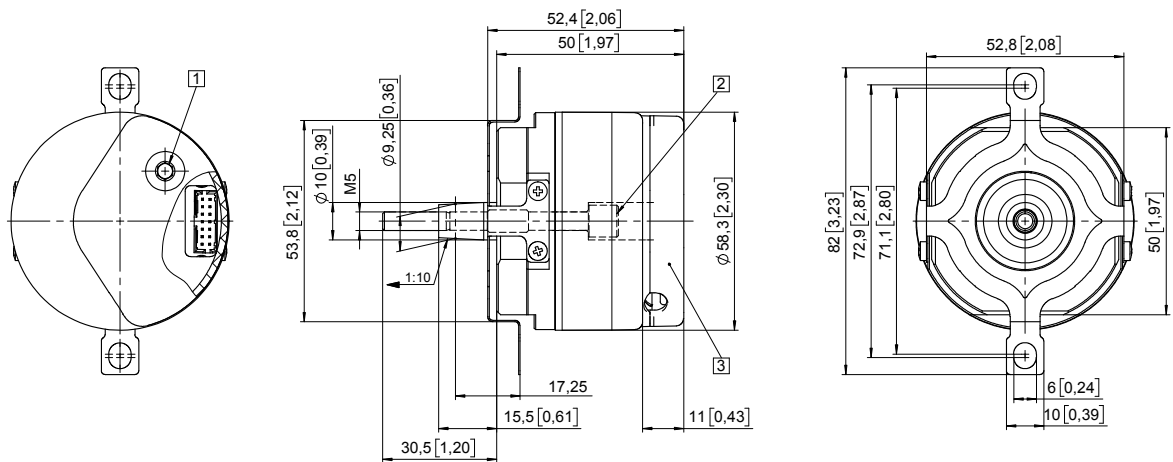
Dimensions in mm [inch]

### Flange with stator coupling, $\varnothing$ 72 [2.83]

#### Flange type G

(with tapered shaft K and PCB connector)

- 1 Recommended torque for screw M6 (SW 4) 2.0 <sup>+0.5</sup> Nm
- 2 Recommended torque for central screw M5 (SW 4) 3.0 <sup>+0.5</sup> Nm (tapered shaft)
- 3 Sealing cap for tangential cable outlet



### Flange with expanding coupling,

$\varnothing$  65 [2.56"]

#### Flange type H

(with tapered shaft K and tangential cable)

- 1 Status-LED
- 2 SET button
- 3 Recommended torque for central screw M5 (SW 4) 3.0 <sup>+0.5</sup> Nm (tapered shaft)
- 4 Recommended torque for tightening screw M2.5 (SW 2) 1.0 Nm (expanding coupling)

