

# Frequency displays / tachometers

**LCD frequency displays**      **Measuring range in Hz (battery)**      **Codix 136**



The Codix 136 is a simple battery powered frequency display / tachometer for NPN, PNP pulses.

Fast and slow count pulses are displayed directly in Hz via the 8-digit LCD display with its optional backlighting.



|                 |                                  |               |                             |                                   |                                       |                                  |                 |                       |                   |
|-----------------|----------------------------------|---------------|-----------------------------|-----------------------------------|---------------------------------------|----------------------------------|-----------------|-----------------------|-------------------|
|                 |                                  |               |                             |                                   |                                       |                                  |                 |                       |                   |
| Battery powered | Frequency display/<br>Tachometer | Type of input | Pulse voltage<br>4 ... 30 V | Max.<br>count frequency<br>12 kHz | Temperature<br>range<br>-10°... +60°C | High protection<br>level<br>IP65 | DIN front bezel | LCD display<br>8 LCDs | Lockable<br>reset |

### Powerful

- Input frequency range from 1 Hz ... 12 kHz – gate measuring method, gate time 1 second.
- Battery life approx. 8 years.
- Filter function for bounce-free counting with mechanical contacts .
- Count frequency max. 12 kHz – accuracy 0.05 %.
- High protection level IP65.

### Simple

- Screw terminals, RM 5 mm.
- For positive or negative edges, depending on version.
- Large 8-digit LCD display with 8 mm high figures and optional backlighting.
- Display directly in Hz.

**Order code**      6.136 . 012 . 8XX

**a** Backlighting  
5 = without  
6 = with

**b** Count input

| Mode      | INP A          |     |        | INP B          |     |       |
|-----------|----------------|-----|--------|----------------|-----|-------|
| 0 = Tacho | 0 ... 0.7 V DC | NPN | 7 kHz  | 0 ... 0.7 V DC | NPN | 30 Hz |
| 1 = Tacho | 4 ... 30 V DC  | PNP | 12 kHz | 0 ... 0.7 V DC | PNP | 30 Hz |

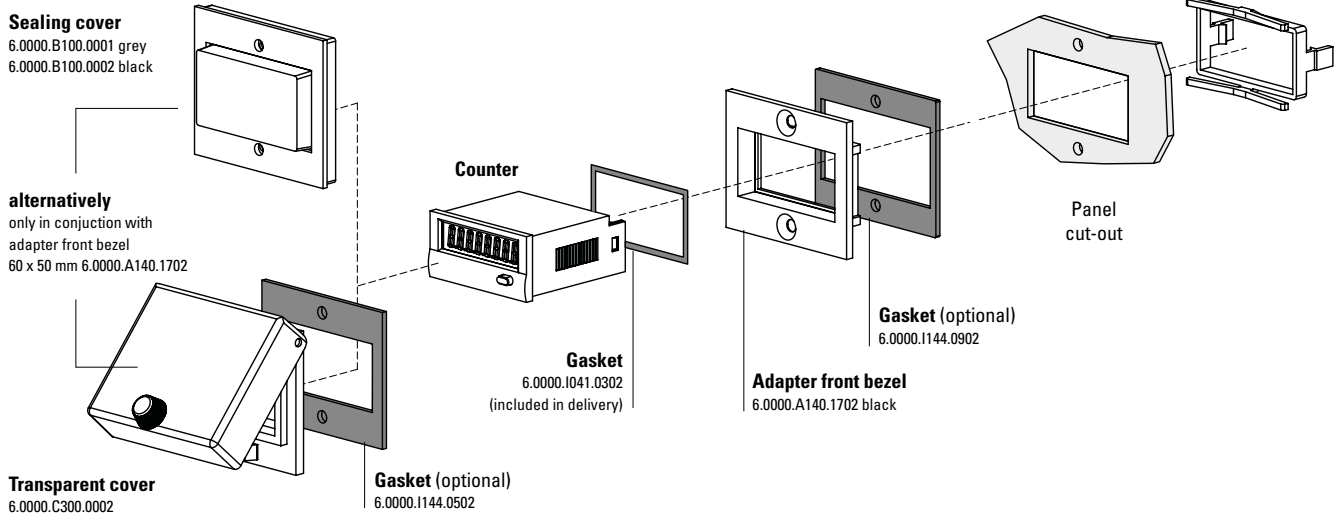
#### Delivery specification

- Pulse counter
- Mounting clip
- Front bezel for screw mounting (6.0000.A110.0503) 56 x 40 mm [2.20 x 1.57"], panel cut-out 50 x 25 mm [1.97 x 0.98"]
- Front bezel for clip mounting (6.0000.A080.0503) 53 x 28 mm [2.09 x 1.10"], panel cut-out 50 x 25 mm [1.97 x 0.98"]
- Gasket
- Instruction manual, multilingual

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## Accessories / Mounting examples



|                               |  | Type / size   | Description  |   | Order no.  | suitable gasket         |
|-------------------------------|--|---|--|---|--|-------------------------|
| <b>Adapter front bezel</b>    |  | <b>53 x 28 mm</b><br>[2.09 x 1.10"]                   | for cut-out 50 x 25 mm [1.97 x 0.98"]<br>to cut-out 45 x 22.2 mm [1.77 x 0.94"]  | black<br>anthracite                             | <b>6.0000.A080.0502</b><br><b>6.0000.A080.0503</b> | <b>6.0000.I082.0502</b> |
|                               |  | <b>56 x 40 mm</b><br>[2.20 x 1.57"]                   | for cut-out 50 x 25 mm [1.97 x 0.98"]<br>to cut-out 45 x 22.2 mm [1.77 x 0.94"]<br>screw mounting  | black<br>anthracite                             | <b>6.0000.A110.0502</b><br><b>6.0000.A110.0503</b> | <b>6.0000.I113.0502</b> |
|                               |  | <b>72 x 36 mm</b><br>[2.83 x 1.42"]                   | for cut-out 68 x 33 mm [2.68 x 1.30"]<br>to cut-out 45 x 22.2 mm [1.77 x 0.94"]  | black and silver<br>anodised<br>as set          | <b>6.0000.A210.1802</b>                            | –                       |
|                               |  | <b>60 x 50 mm</b><br>[2.36 x 1.97"]                   | for cut-out 54 x 29 mm [2.13 x 1.14"]<br>to cut-out 45 x 22.2 mm [1.77 x 0.94"]<br>screw mounting  | black   | <b>6.0000.A140.1702</b>                            | <b>6.0000.I144.0902</b> |
|                               |  | <b>48 x 48 mm</b><br>[1.89 x 1.89"]                   | for cut-out 45 x 45 mm [1.77 x 1.77"]<br>to cut-out 45 x 22.2 mm [1.77 x 0.94"]  | black   | <b>6.0000.A040.0402</b>                            | –                       |
| <b>Sealing cover IP65</b>     |  | <b>K1</b>   | only in conjunction with adapter front bezel<br>60 x 50 mm 6.0000.A140.1702  | transparent /<br>grey<br>transparent /<br>black | <b>6.0000.B100.0001</b><br><b>6.0000.B100.0002</b> | –                       |
| <b>Transparent cover IP65</b> |  | <b>1 Dv</b><br>(mounted on<br>bezel)                  | cover lockable,<br>for cut-out 54 x 29 mm [2.13 x 1.14"],<br>only in conjunction with adapter front bezel<br>60 x 50 mm 6.0000.A140.1702 | transparent /<br>black                          | <b>6.0000.C300.0002</b>                            | <b>6.0000.I144.0502</b> |
| <b>Gasket counter</b>         |  |   | 48 x 24 mm (for installation in adapter front bezel)<br>49 x 25 mm   |   | <b>6.0000.I041.0302</b><br><b>6.0000.I063.0302</b> |                         |
| <b>Mounting frame</b>         |  | <b>cut-out</b><br><b>50 x 25 mm</b><br>[1.97 x 0.98"] | via adapter 6.0000.A080.0503<br>for snap-on mounting on<br>35 mm [1.38"] top-hat DIN rail  | chromated                                       | <b>6.0000.F300.0006</b>                            | –                       |
| <b>Enclosure blind</b>        |  | <b>48 x 24 mm</b><br>[1.89 x 0.94"]                   | for cut-out 45 x 22.2 mm [1.77 x 0.94"]<br>and cut-out 50 x 25 mm [1.97 x 0.98"]   | anthracite                                      | <b>6.0000.H100.0003</b>                            | –                       |

incl. in delivery

# Frequency displays / tachometers

## LCD frequency displays      Measuring range in Hz (battery)      Codix 136

### Technical data

| General technical data       |  |
|------------------------------|--|
| <b>Display</b>               | LCD, 8 digits, 8 mm [0.32"] high                           |
| <b>Backlighting</b>          | external electrical source<br>24 V DC $\pm 20\%$ , 50 mA   |
| <b>Display range</b>         | 0 ... 99999999   |
| <b>Resolution</b>            | 1/sec (1 Hz)   |
| <b>Working temperature</b>   | -10 °C ... +55 °C [+14 °F ... +131 °F]<br>(non-condensing) |
| <b>Operating temperature</b> | -10 °C ... +60 °C [+14 °F ... +140 °F]<br>(non-condensing) |
| <b>Storage temperature</b>   | -20 °C ... +70 °C [-4 °F ... +158 °F]                      |
| <b>Relative humidity</b>     | < 85 % (non-condensing)                                    |
| <b>Altitude</b>              | up to 2000 m [6562']                                       |

| Electrical characteristics |   |
|----------------------------|---|
| <b>Supply voltage</b>      | internal lithium battery<br>approx. 8 years at 20 °C [68 °F]                            |
| <b>Device safety</b>       | designed to EN 61010 part 1<br>protection class 2<br>application area pollution level 2 |

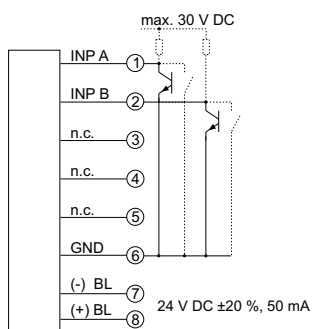
| Mechanical characteristics |                        |
|----------------------------|------------------------|
| <b>Housing</b>             | dark grey RAL 7021     |
| <b>Protection</b>          | IP65 (front side)      |
| <b>Weight</b>              | approx. 50 g [1.76 oz] |

| Counting inputs   |      |                           |
|---|------|---------------------------|
| <b>Counting input of the DC-versions (max. 30 V DC)</b> |      |                           |
| slow counting input                                     | max. | 30 Hz NPN or PNP          |
| fast counting input                                     | max. | 12 kHz (PNP), 7 kHz (NPN) |
| switching level NPN                                     | LOW  | 0 ... 0.7 V DC            |
|   | HIGH | 3 ... 30 V DC             |
| switching level PNP                                     | LOW  | 0 ... 0.7 V DC            |
|   | HIGH | 4 ... 30 V DC             |

| Approvals                              |            |                  |
|--|------------|------------------|
| <b>UL compliant</b> in accordance with |            | File no. E128604 |
| <b>CE compliant</b> in accordance with |            |                  |
| EMC Directive                          | 2014/30/EU |                  |
| RoHS Directive                         | 2011/65/EU |                  |
| Low Voltage Directive                  | 2014/35/EU |                  |

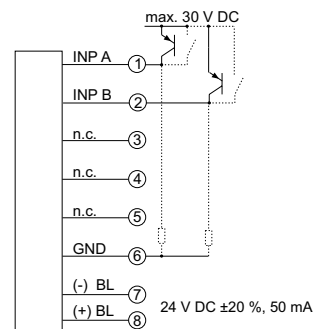
### Terminal assignment

DC type: 6.136.012.8x0



BL = backlighting

DC type: 6.136.012.8x1



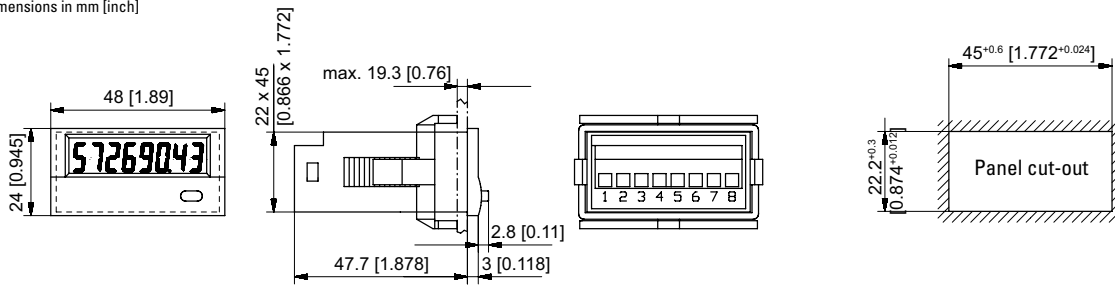
BL = backlighting

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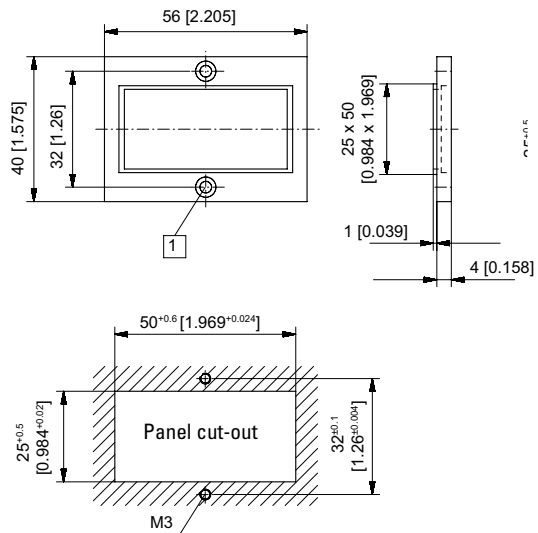
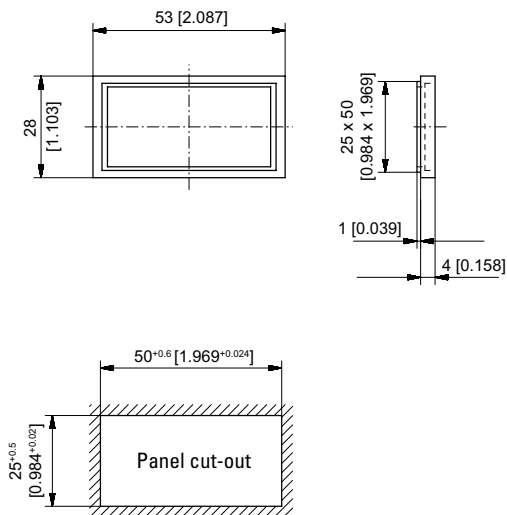
## Dimensions

Dimensions in mm [inch]



### Front bezel for clip mounting (included in delivery)

### Front bezel for screw mounting (included in delivery)



□ Countersinking Af3, DIN 74