

## Incremental-Encoder IE 35

TR-VCE-TI-GB-0550  
04/12 Revision 02  
010101-00359999-9999



- + Incremental interface
- + Small compact design (35 mm)
- + Universal applications
- + Number of pulses per revolution 1 to 3.600

### Characteristics

|                                       |  |
|---------------------------------------|--|
| Supply Voltage .....                  | 11 - 27 V DC   |
| 5 VDC .....                           | Upon request   |
| Power Dissipation (No Load) .....     | < 2.5 Watt   |
| Output (11-27 V) .....                | Push-Pull  |
| - Maximum Current .....               | max. 20 mA   |
| - Incremental Signal .....            | A, A neg., B, B neg.   |
| - Marker Pulse .....                  | Z, Z neg., 1 pulse per revolution                            |
|                                       | Maximum Output Frequency 160 kHz                             |
| Output (5 V) .....                    | Line Driver  |
| - Maximum Current .....               | max. 20 mA   |
| - Incremental Signal .....            | A, A neg., B; B neg.   |
| - Marker Pulse .....                  | Z, Z neg., 1 pulse per revolution                            |
|                                       | Maximum Output Frequency 300 kHz                             |
| Tolerance (at 100 kHz)                |  |
| - Phase Shift .....                   | ± 30°  |
| - Pulse Width .....                   | ± 30°  |
| Number of Pulses Per Revolution ..... | 1 to 3.600   |
| Maximum Rotational Speed .....        | max. 12.000 RPM  |
| Maximum Load on Shaft .....           | 10 N axial, 20 N radial (at end of shaft)                    |
| Maximum Angular Acceleration .....    | ≤ 10 <sup>5</sup> rad/s <sup>2</sup>                         |
| Momentum of Inertia .....             | 0.2 x 10 <sup>-6</sup> kg m <sup>2</sup>                     |
| Startup Momentum 20°C (68° F) .....   | 0.01 Ncm   |
| Connector .....                       | PG axial cable (pigtail), Different Cable Lengths on Request |
| Weight .....                          | 0.2 kg (0.4 lb.)   |

Subject to change

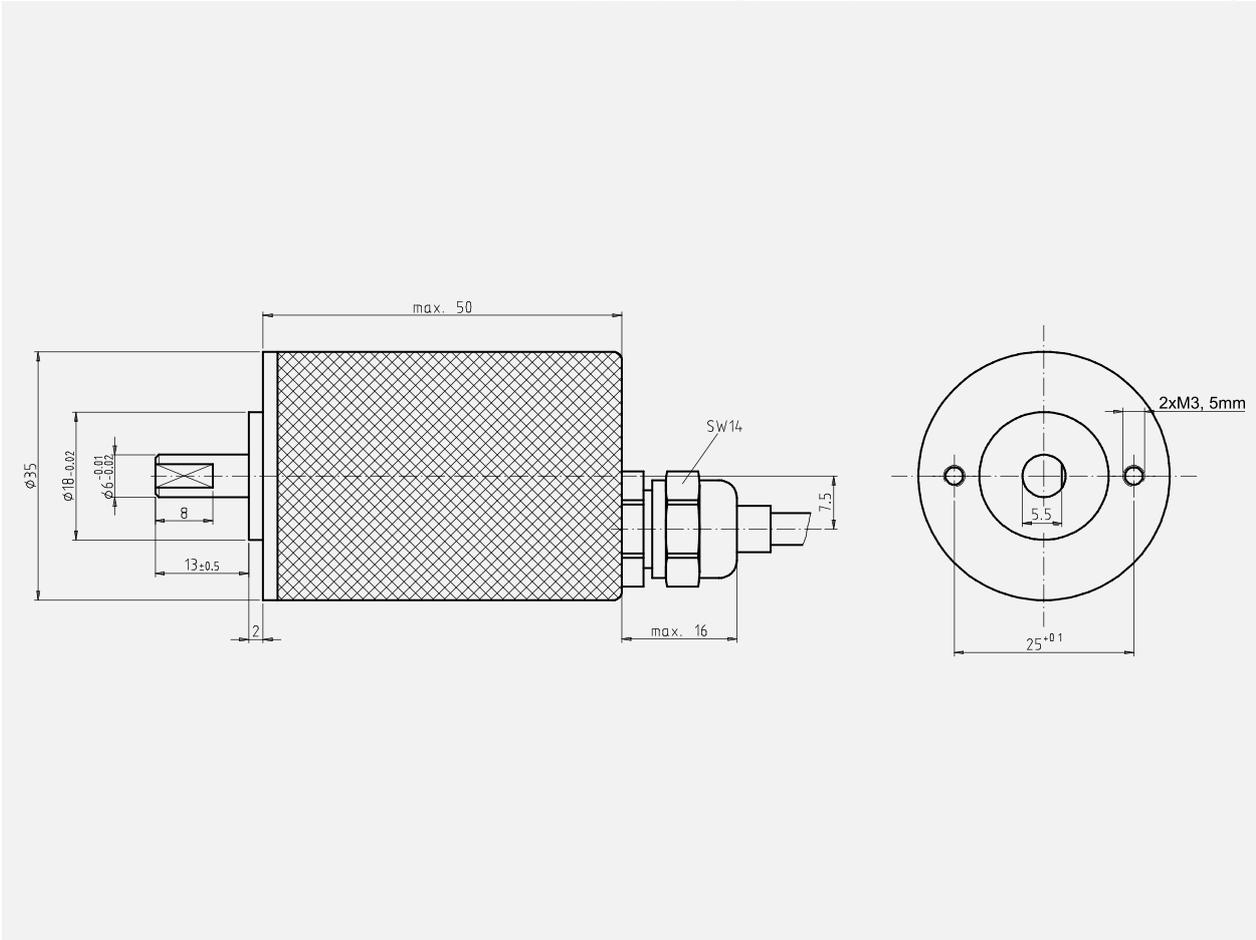
**Environmental conditions**

|   |   |
|---|---|
| Vibration, DIN EN 60068-2-6: 1996 .....           | ≤ 100 m/s <sup>2</sup> , sine 50-2000 Hz  |
| Shock, DIN EN 60068-2-27: 1995.....               | ≤ 1000 m/s <sup>2</sup> , half-sine 11 ms |
| EMC   |   |
| - Immunity to disturbance, DIN EN 61000-6-2: 2006 |   |
| - Transient emissions, DIN EN 61000-6-3: 2007     |   |
| Operating Temperature.....                        | 0° to +80°C (32° to 176°F)                |
| Extended Temperature (Optional) .....             | -30° to +80°C (-22° to 176°F)             |
| Relative humidity, DIN EN 60068-3-4: 2002 .....   | 98 %, non condensing                      |
| Protection class, DIN EN 60529: 1991 *).....      | IP 65                                     |

\*) valid with screwed on mating connector and / or screwed together cable gland

**Dimension drawing**

(For project planning please request customized dimensional drawing!)



Subject to change