Transponder Reader

Operation

Transponder Reader HG 70640YC and Transponder (Balise) HG 70610RE are used in railway applications. This system enables transmitting a unique, position depending transponder code punctually. The Reader is installed underneath the train, the Transponder (Balise) is installed within the road bed, preferably onto a sleeper. The nominal reading distance between reader and Transponder is 400 mm. The Transponder crossing speed can be up to 100 km/h.

When crossing the Transponder, the Reader energizes the Transponder inductively with energy. At any other time, the Transponder is passive and does not require any power supply.

- Applied standards: ETSI EN 300 330-1 V1.5.1 (2006-01), EN 50 121-3-2, partially EN 50 155
- Integrated antenna
- Data transmission via Back scatter procedure

Technical Data

- Power Supply: 24 Volt (20..75 Volt DC)
- Current consumption at 24V: 0.5 A
- Operating frequency: 131 kHz
- Magn. field strength: 45 dBμA/m (+0 / -3 dB) at 131 kHz at a distance of 10 m
- Magn. field strength: 110 dBμA/m at 131 kHz at 0.5 m distance
- max. crossing speed: > 100 km/h with Transponder HG 70610 RE at nominal reading distance
- Reading distance: 100 to 800 mm (without influences on the magn. field)
- Nominal reading distance: 400 mm
- Dimensions incl. mounting plate (without connector): 420 x 100 x 160 mm (W x H x D)
- Weight incl. mounting plate: less than 10 kg
- International Protection Class: IP 65
- Temperature range: Operation -25 to +70° C
  short term operation (< 15 min)-35 to +85° C
  storage -35 to +70° C
- Humidity: 95% rel. humidity

Pin Signal

<table>
<thead>
<tr>
<th>Pin</th>
<th>Signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>GND</td>
</tr>
<tr>
<td>2</td>
<td>Disable</td>
</tr>
<tr>
<td>3</td>
<td>Data</td>
</tr>
<tr>
<td>4</td>
<td>+UB</td>
</tr>
</tbody>
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Table: Pin allocations

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