Train Detection System UTR / ITR

Train detection system UTR/ITR is using ALTPRO wheel sensing technology for train detection. It is characterized by exceptional simplicity in operation, installation and maintenance. This reliable solution is ideally used in simple train detection applications for activation and triggering of any kind of a system.

**Functionality**
UTR/ITR system is using ALTPRO inductive wheel sensor technology for detection of the arriving train. It is an ideal replacement for old mechanical or magnetic switch on / switch off detectors, track circuits or loops.

**Safety**
Train detection system UTR / ITR is certified for harsh environmental conditions (temperature, humidity, pressure, vibrations and shocks) according to EN50125-3.

**Maintenance**
The system requires simple maintenance with periodic checks which include voltage measuring and other simple maintenance activities.

**Connectivity**
UTR / ITR provides relay outputs and transistor/optocoupler outputs whose activation delays are time configurable. Transistor / optocoupler outputs enable UTR / ITR to be used as an interface between ALTPRO wheel sensors and other systems like HOT BOX, train weighing systems and similar.

**Analytics**
Possibility of connecting data logger which enables personnel to track UTR/ITR performance while the train is passing.
Application
- Level crossing protection system
- Hot box
- Passenger information systems
- Flat wheel detection systems
- Automatic warning systems
- Track lubrication

Technical data for outdoor equipment: ZGK and ZK24-2 sensor
- Sensor mounting bracket for all rail types – version with the clamp (no need for rail drilling) and version for drilled rails
- Mechanical protection of the sensor with shields
- 3-stage protection against lightning overvoltage and traction return current

Technical data for indoor equipment:
- Interface Module UTR245 / ITR245, Lightning Protection Module ZUT

System information output
- Wheel passage

System benefits
- Simplicity
- Small dimensions
- Easy-to-read user interface

Supply voltage and operating temperatures

<table>
<thead>
<tr>
<th>Field</th>
<th>Outdoor Equipment</th>
<th>Indoor Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply voltage</td>
<td>18 - 48 VDC</td>
<td>13 – 40 VDC</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>- 40°C - +80°C</td>
<td>- 30°C - +70°C</td>
</tr>
<tr>
<td>Operating conditions</td>
<td>Up to 100% humidity</td>
<td></td>
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<tr>
<td>Wheel detection</td>
<td>According to TSI (ERA/ERTMS/033281)</td>
<td></td>
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<tr>
<td>Water and dust protection</td>
<td>IP68 sensor</td>
<td></td>
</tr>
<tr>
<td>ZK24-2 operating frequencies</td>
<td>H: 330 kHz, L: 300 kHz</td>
<td></td>
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</tbody>
</table>

Dimensions (w x l x h)

<table>
<thead>
<tr>
<th>Field</th>
<th>Outdoor Equipment</th>
<th>Indoor Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>UTR245, ITR245</td>
<td>99 × 75 × 110 mm</td>
<td>99 × 75 × 110 mm</td>
</tr>
<tr>
<td>ZUT:</td>
<td>55 x 75 x 110 mm</td>
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</tbody>
</table>

Order codes

UTR System (Train Detector UTR245, ZUT, ZGK, ZK24-2) ....................... AP215593
ITR System (Train Detector ITR245, ZUT, ZGK, ZK24-2) ....................... AP215594