Outdoor units for level crossing protection system

**INDOOR EQUIPMENT**
- RLC23 Central Unit
- VUR Lightning Protection Module
- ZK24-2 Railwheel Sensor

**OUTDOOR EQUIPMENT**
- CS-L Road Signal
- PB13 Barrier System
- KS11 LED Driver’s Indication Signal

Outdoor units of a level crossing protection system include barrier system PB13, driver’s indication signal KS11 and road signals. ALTPRO outdoor LX units are characterized by high reliability, cost effectiveness and possibility to connect to a wide variety of different level crossing protection systems.

**Functionality**
- **PB13** - Barrier System PB13 uses a 24 V DC electric motor for rising and lowering the barrier arms. The electric motor is fitted with an electromagnetic brake which provides locking of the barrier in vertical, horizontal or current position. Barrier system capable of driving barriers up to 10.5 m. In specific cases, there is also the possibility to manually operate the barrier drive by direct activation from the operator, in which case the electric motor and the brake are automatically switched-off.
- **CS-L** - Road signal which provides light and acoustic (mechanical or electric bell) warning when the train approaches. The road signal CS-L consists of two red LED lanterns, connection box, column and optional St. Andrew cross. Road signals are adopted to certain markets particular design.
- **KS11** - LED Driver’s Indication signal consists of board with LED lanterns, connection box, column and maintenance platform. Driver’s red LED lanterns are adopted to certain markets particular design.

**Safety**
All ALTPRO outdoor LX units are certified in accredited laboratories against water and dust protection, shock, resistance, vibration resistance and electromagnetic compatibility (EN 50121-4).

**Maintenance**
- **PB13** - Simple and robust design enables easier maintenance with low cost, integrated activation counter thermostat for summer / winter heater operation and removable segment for barrier breakage are elements with simplify the maintenance process.
- **CS-L** - Modular design of the signal provides easy access to each component for maintenance purposes.
- **KS11** - Modular design of the signal provides easy access to each component for maintenance purposes.
OUTDOOR UNITS FOR LEVEL CROSSING PROTECTION SYSTEM

System benefits

PB13
- Built-in heater for the barrier drive
- Barrier breakage detection
- Configurable arm lifting and lowering times
- Manual operation by operator

CS-L
- LED lights

Technical characteristics

Road Signal CS - L, Barrier system PB13, LED Driver’s Indication Signal KS11

<table>
<thead>
<tr>
<th>Water and dust protection</th>
<th>EMC (EN50121-4)</th>
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<tbody>
<tr>
<td>IP55 CS - L</td>
<td>CS-L, PB13</td>
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<tr>
<td>IP65 PB13</td>
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<tr>
<td>IP54 KS11</td>
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<table>
<thead>
<tr>
<th>Shock resistance</th>
<th>Operating temperature</th>
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</thead>
<tbody>
<tr>
<td>CS - L - class IR3 according to EN 60598-1</td>
<td>CS-L: -40 °C - +60 °C</td>
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<tr>
<td></td>
<td>PB13: -40 °C - + 70 °C</td>
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<tr>
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<td>KS11: -40 °C - + 70 °C</td>
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<th>Vibration resistance</th>
<th>Operation altitude</th>
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<tbody>
<tr>
<td>CS - L - class WL9, TDB2, DSL4 according to EN 50293</td>
<td>0 - 1000 m</td>
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Order codes

Road Signal CS - L ......................................................................................................................... AP215789
Barrier System PB13...................................................................................................................... AP215738
LED Driver’s Indication Signal KS11 .............................................................................................. AP215787
Central device RLC23 .................................................................................................................. AP215766

Origin of your safety.

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EMC (EN50121-4) | CS-L, PB13
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Operating temperature
- CS-L: -40 °C - +60 °C
- PB13: -40 °C - + 70 °C
- KS11: -40 °C - + 70 °C

Operation altitude
- 0 - 1000 m

Wind resistance
- 25 m/s

Ice cover resistance
- 10 mm