FAdC+ is the most advanced FTS combination. It consists of Frauscher Acoustic Sensing FAS and the Frauscher Advanced Counter FAdC. This combination provides valuable data that enables you to implement complex and safety-relevant applications, as the axle counter operates on a SIL 4 level.

**INFORMATION**
- Clear/occupied status (SIL 4)
- Number of axles (SIL 4)
- Track ID, position, speed, acceleration, direction, train length, estimated time of arrival (ETA)
- Rail defects, flat wheels, catenary flashover, rock fall
- Work crews, trespassers, cable theft, vandalism, animals etc.

**APPLICATIONS**
- Track vacancy detection (SIL 4)
- Train tracking
- Asset condition monitoring
- Safety and security

**BENEFITS**
- One solution for track vacancy detection at SIL 4 safety level.
- Includes a wide range of additional information for specific applications
- Continuous real-time tracking along the total network
**FTS-FAdC**

The FadC axle counter can be used for fail-safe track vacancy detection. Additional data input from FAS, for example rail defects monitoring, can be added. By overlaying information from both technologies, this solution has the potential to replace single systems for various train tracking, asset condition monitoring and security applications. FTS-FAdC+ also has the capability to be used in challenging areas, such as long and remote block sections.

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### Technical Data

#### FTS-FAS

<table>
<thead>
<tr>
<th>Interfaces</th>
<th>FAS Display Unit, XML, MODBUS SCADA, email and text message notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power requirements</td>
<td>115 V or 230 V – peak power consumption: 1,000 W</td>
</tr>
<tr>
<td>Required Fiber Type</td>
<td>Single-mode ITU-T G.652, G.654 or G.655</td>
</tr>
<tr>
<td>Laser</td>
<td>Class 1</td>
</tr>
<tr>
<td>Distance monitored per system</td>
<td>2 x 25 miles (unlimited distances enabled by multiple network systems)</td>
</tr>
<tr>
<td>Operating temperature range (indoor equipment)</td>
<td>+41 °F to +104 °F (+5 °C to +40 °C)</td>
</tr>
</tbody>
</table>
| Dimensions | Height: 50” (1,300mm)  
| | Width: 30” (800mm)  
| | Depth: 30” (800mm) |
| Weight | 265 lbs (120 kg) |

#### FAdC

| Interfaces | Vital, customer-specific protocol  
| | Frauscher Safe Ethernet FSE protocol and/or vital output via optocoupler or relay interface |
| Safety level | SIL 4 (communication according to EN 50159, category 2) |
| Temperature | Outdoor equipment: -40 °F to +185°F (-40 °C to +85 ºC)  
| | (“outside” climatic class TX of EN 50125-3)  
| | Indoor equipment: -40 °F to +158°F (-40 °C to +70 ºC)  
| | (“in cabinet” climatic class T2 of EN 50125-3) |

More information can be found on the FAdC data sheet.