

TRACKING

Frauscher Tracking Solutions FTS-FAdC⁺



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 for 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



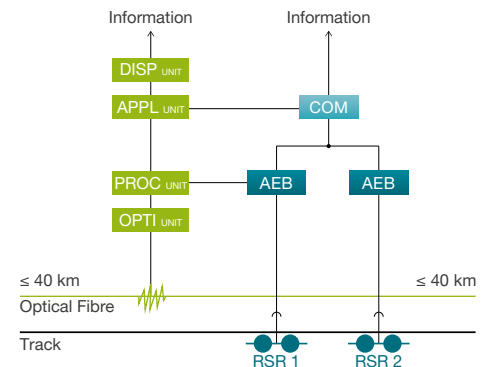
BENEFITS

- One solution for track vacancy detection on SIL 4 plus a wide range of additional information for specific applications
- Continuous real-time tracking along total network

FTS-FAdC⁺

The FAdC axle counter can be used for fail-safe track vacancy detection, whereas 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 capabilities to be used in challenging areas, such as long and remote block sections.

DISP UNIT	Display Unit	AEB	Evaluation board
APPL UNIT	Application Unit	COM	Communication board
PROC UNIT	Processing Unit	RSR	Wheel sensor
OPTI UNIT	Optical Unit		



Technical Data

FTS-FAS

Interfaces	FAS Display Unit, XML, MODBUS SCADA, email and SMS notification
Power requirements	115 V or 230 V – peak power consumption: 1 000 W
Required fibre type	Single-mode ITU-T G.652, G.654 or G.655
Laser	Class 1
Distance monitored per system	2 x 40 km (unlimited distances enabled by multiple network systems)
Operating temperature range (server)	+5 °C to +40 °C
Dimensions	Height: 1 300 mm Width: 800 mm Depth: 800 mm
Weight	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 °C to +85 °C ("outside" climatic class TX of EN 50125-3) Indoor equipment: -40 °C to +70 °C ("in cabinet" climatic class T2 of EN 50125-3)

More information can be found on the FAdC data sheet.