



RailSWing ABA-12

Fixed eurobalise

- Easy installation
- Universal use
- Long service life
- Minimum maintenance
- High railway environment resistance



GENERAL DESCRIPTION

The fixed eurobalise RailSWing ABA-12 (further ABA-12) is the basic element of track part of ERTMS/ETCS.



ABA-12 is an interoperability constituent according to applicable TSI (Technical Specification for Interoperability).

BASIC TECHNICAL DESCRIPTION

ABA-12 is designed for contactless intermittent transmission of safety-relevant information (telegram) from the infrastructure to railway vehicle.

ABA-12 contains programmable telegram in its internal memory. Activation of ABA-12 and repeating transmission of telegram is provided by passing the railway vehicle. Transmission is finished when intensity of excitation field drops under defined limit.

The transmission of telegram to railway vehicle is provided for speed

range 0 to 500 kmph. The transmitted telegram can have 341 bits (short telegram) or 1023 bits (long telegram).

The long telegram can be transmitted to railway vehicle with maximum speed 300 kmph, for higher speed, the short telegram can be only used.





BASIC TECHNICAL PARAMETERS

Main dimensions	593 × 300 × 44 mm	
Power supply	Supply frequency	27,095 MHz ± 5 kHz
	Modulation frequency	50 kHz ± 200 ppm
Transmission of telegram	Length of telegram	341 bits or 1023 bits (optional)
	Modulation	FSK
	Nominal frequency – logic 0	3,951 MHz
	Nominal frequency – logic 1	4,516 MHz
	Mean frequency	4,234 MHz ± 175 kHz
	Frequency deviation	282,24 kHz ± 7 %
	Transmission speed	564,48 kbit/s ± 2,5 %
	Maximum speed for ABA-12 with short telegram (341 bits)	500 km/h
Maximum speed for ABA-12 with long telegram (1 023 bits)	300 km/h	
Temperature range	-25 °C to +70 °C	
Cover rating	IP 67	
Weight	< 5 kg	
Service life	min. 30 years	

