### **SIGNALING**





The new, modern MIRA system makes level crossings safe and significantly reduces the risk of accidents occuring. Thanks to our state-of-the-art technology, trucks, cars, and other critical objects both in the danger zone and the approach area are recorded and reported. MIRA thus contributes significantly to reducing the risk of accidents occuring at level crossings and also, therefore, increases acceptance of rail as a means of transport.

MIRA incorporates the best of all the previous versions, as well as the latest innovations and customer requirements, and is thus already equipped for the future. Not only does it use the new, required 76 GHz microwave technology, but it also complies with the highest CENELEC level of approval. Its design is based on SIL-4 architecture, and there are plans to introduce options for local modifications and enhancements. The fexibility of its use in the field of sensor technology was taken into particular consideration at the developmental stage.

- SIL-4 for CENELEC
- Flexible interfaces for level-crossing integration
- Intrusion detection
- Video surveillance (CCTV)
- Intelligent Diagnosis
- Easy configuration
- Heating System

#### **SENSORS - TECHNICAL DATA**

FEATURES	VALUE
SUPPLY VOLTAGE	24 V DC +-5%
COMMUNICATION CHANNEL	Ethernet e rs485
OUTPUT POWER	10 mW
ANTENNA GAIN	25 dBm
FREQUENCY BAND	1 GHz
RESOLUTION	0.15 m
MAX DISTANCE	40 m
OPENING ANGLE	25° horizontal, 6° vertical

#### **CONTROL LOGIC - TECHNICAL DATA**

FEATURES	VALUE
SUPPLY VOLTAGE (V IN)	110-230 Vac
FREQUENCY	50 Hz +/- 2%
CONSUMPTION	< 100 VA
VARIATION OF THE SUPPLY VOLTAGE	70% V DC in 100 ms 40% V DC in 10 ms
NUMBER OF OUTPUT CHANNELS	6 ouputs fail-safe 3% Max, 0.05 A 1 output as Relay 9NO/NC selectable
NUMBER OF INPUT CHANNELS	6 neutral safety relay contact



## **Progress Rail**

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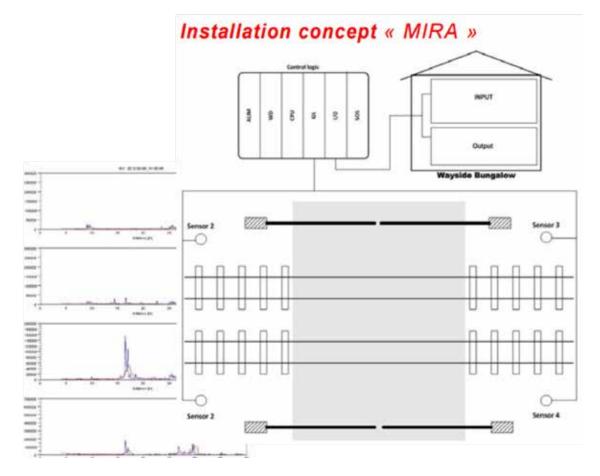
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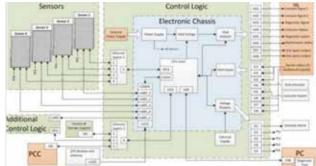
### **SIGNALING**

- 1. Activation of the scan
- 2. I/O Managing
- 3. Sensors managing
- 4. Scanning of the protected area
- 5. Analysis
- 6. Intrusion detection

- 7. CCTV managing
- 8. Timing synchronization
- 9. Errors management
- 10. Diagnostic
- 11. Configuration
- 12. External communication management

- 13. Diagnostic communication management
- 14. Exclusion management
- 15. Heaters management
- 16. Additional Control Logic management





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