

BROS

Train Axle Counter

- Control of up to 8 railway sections
- Up to 12 sensor pairs can be connected directly to the BROS
- Modem communication with up to two remote axle counters
- Adjustable power supply: 18V - 72V DC or 220V AC
- Operating temperature range: - 40 °C to + 70 °C
- Reliable detection for train speed up to 300 km/h
- Fulfills SIL4 requirements according to CENELEC



Axle Counter BROS is used to control occupancy of the railway sections. The device is placed into a standard 19-inch 3U height rack and it is mounted inside the relay room of the railway station, automatic block system, or level crossing.

Axle Counter BROS uses sensor pairs (SP) at the end of each section and it counts in axles that have entered the section, and counts out axles that have left the section. Sensor pair consists of two sensors (wheel detectors) which are placed next to each other on the rail.

In addition to the basic function of detecting the presence or the arrival of the train wheel, sensor pair also provides detection of the direction and speed of rail vehicles.

Key features

Providing outputs for 8 sections and having up to 12 directly connected sensor pairs, BROS device is perfectly suitable for usage within station interlocking system, as a relatively small number of devices can control all sections of the small, medium or large railway stations.

BROS device provides larger number of sensor inputs and relay outputs per one rack compared to competitor devices.

In the case using BROS for controlling occupancy within ABS, only two wires in STA cable is enough for communication with adjacent axle counters.

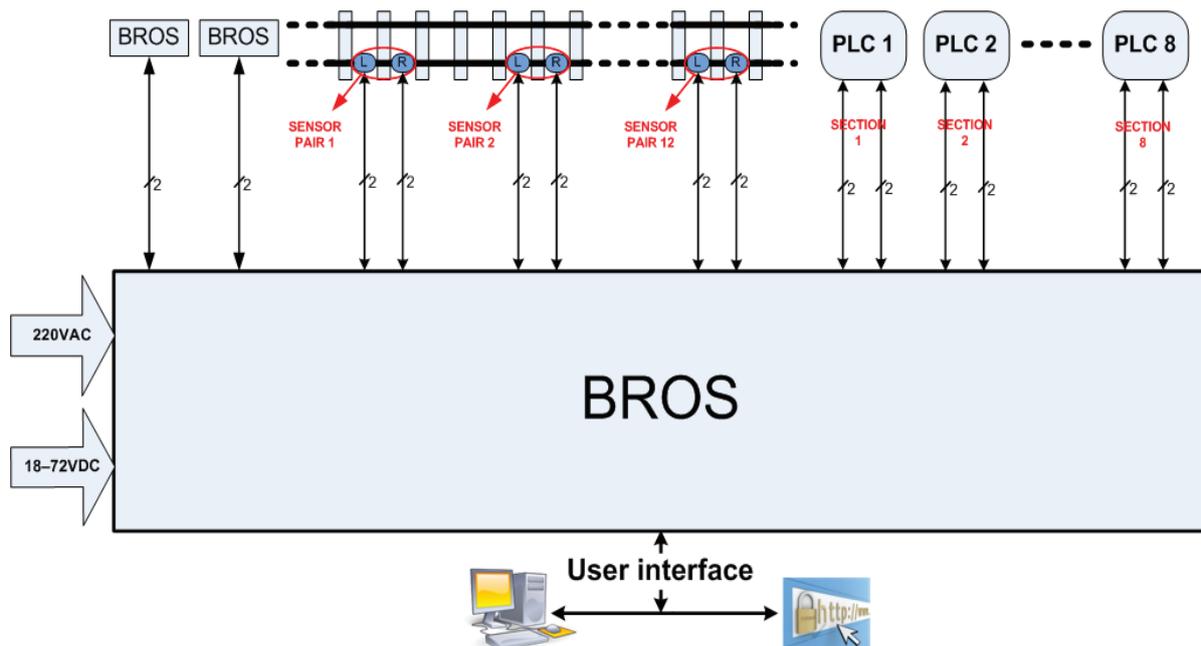
BROS has two modems, which enable communication with maximum two neighboring axle counters, which is important for usage within ABS.

BROS supports all section topologies. Configuration stored in non-volatile memory provides all possible combination between sensor pairs and relay outputs.

Additionally, direction and system information of the counting heads can be output via optocoupler.

Design of the BROS device is based on cutting edge technology.





Technical characteristics

Dimensions:	19" standard board rack
	3 U height
	84 pitch units width
Controll and communication:	Control of up to 8 railway sections
	Up to 12 sensor pairs connected directly to the axle counter
	Modem communication with up to two remote axle counters
	Two wire conection for modem communication with neighboring axle counters
Ambient conditions:	Operating temperature: - 40 °C to + 70 °C
	Humidity: up to 100%
Power supply:	18V to 72VDC
	220V AC
	Consumption up to 50W
Detection:	Detection of the presence or the arrival of the train wheel
	Detection of the direction and speed of rail vehicles
	Detection for train speed up to 300 km/h
Default maximum distance between the sensor pair and BROS device is 20 km for signaling cable	
SPZ 1.4 mm (on request, it is possible to deliver a solution with greater maximum distance).	

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