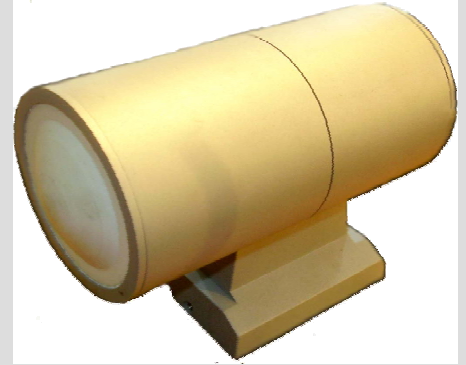


Radar Sensors for Hump Yard and Railroad Apps

Technical information:

Dimensions (diameter/length)	92/170 mm;
Weight	0.7 kg;
Technical characteristics:	
- Operating frequency	36.5 GHz;
- FM bandwidth	0.5 GHz;
- Max. range in distance control mode	50 m;
- Max. range in Doppler radar mode	50 m;
- Distance resolution	0.3 m;
- Speed detection range	0.5 – 35 km/h;
- Output power no more then	0.02 W;
- Azimuth observation angle	15°;
- Remote control range no more then	1200 m;
- Power consumption	6 W.



Device description:

The low-cost Ka-band radar sensor for railway applications included the check and remote control of the track occupancy/vacancy and the car speed at hump yards and guarded and non-guarded rail crossings in an effort to reduce the risk of accident on railroads. The radar sensor is equipped with systems of remote control and internal parameter diagnostics, which provided transmission systems, pass the radar and service information to the control point.

The sensor does not respond to precipitation in the form of snow, rain, fog, and not susceptible to icing.

A big advantage of these radar sensors is versatility. The sensors of one and the same type can play a set of roles, which really simplifies the standardization and maintenance. Also, they are much smaller, lighter and cheaper than their closest analogs.

Several radar sensors have been finished and hump-yard-tested, proving that the radar sensor operation is in full agreement with design specifications.

The sensors of the kind can be also used for increasing the railway transport safety in anti-collision systems.