

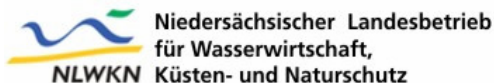


OTT Application Notes / Success Stories

Waterlevel measurement with radar technology in the tidal harbour of Emden in the North Sea

OTT RLS and stationmanager OTT LogoSens

Background / Task



The NLWKN operates the barrier in the inland waterway of the river Ems. They are working with a dense monitoring network which is required e.g. for the preservation of evidence in case of blocks for the protection against storm tides or if the water depth has to be increased to make the Ems navigable for big vessels coming from the dockyard. After an average a new radar waterlevel sensor had to be installed at the Ems pier in Emden.

The measurement site is situated near the estuary of the Ems (Dollart). The tidal range here is 3-4 m. Especially during the autumn-/ winter- stormfloods it has to withstand high waterlevels, heavy wind, swell and spray (salty splash water).

Monitoring Solution

In spring 2009 an OTT RLS radar level sensor was installed with a simple jib at a railing at the Ems pier. Waterlevel data is collected every 5 minutes as well as quality parameters like temperature, conductivity, DO and turbidity which are measured with single probes, all data converging in the stationmanager OTT LogoSens. Data communication works via a GSM radio network.



Summary

Even in the difficult conditions at the coast with heavy winds, high waves and great tidal ranges the OTT RLS radar level sensor continuously provides reliable and precise measurement data.

In situations where non-contact and precise waterlevel measurement is required, the use of an OTT RLS radar level sensor can be recommended. The installation is quick and simple and there are hardly any expenses for maintenance. Thanks to the simple installation the OTT RLS can also be used for temporary applications.

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