RF References





SBB - Durchmesserlinie

Eupen provides 45km EUCARAY® Radiating Cables

Customer SBB - CFF - FFS

Situation

The eight-year Durchmesserlinie project to increase capacity at Zürich Central Railway Station by eliminating the need for east–west trains to reverse was officially completed in October 2016.



Phase 1 of the 9,6 km Durchmesserlinie comprised the 4,8 km S-shaped Weinberg Tunnel linking Zürich Central Railway Station and Oerlikon, which opened for local services in June 2014.

Phase 2 included the construction of the 394 m long Kohlendreieck and 1 156 m Letzigraben flyovers. These enable long-distance trains to cross over from the main line on the north side of the approaches to Central Railway to the Weinberg Tunnel on the south side, without conflicting movements.

Long-distance trains begun using the Durchmesserlinie with the December timetable change. The new Phase 2 infrastructure will be used by 24 long-distance and S-Bahn trains per hour.

Planning on the project started in 2001. It cost a total of CHF 2,068billion.

The completion means that Zurich Central Station now has sufficient volume to meet expected demand.

RF References

Challenges As the Tunnel Radio Systems have to fulfil multiple purposes providing RF coverage for TERTRAPOL for Emergency Services, GSM-R for the operation of the Railway and Mobile Communications, including UMTS and LTE services for the public, it is imperative that they function at all times, even in a hostile environment like this.

> Due to the tight time-table constraints, scheduled maintenance will be restricted to a few working hours, usually in the middle of the night, the SBB required Radiating Cable fixing systems that aide effortless installation and easy future maintenance.

Solution EUPEN, together with it's Partner Elbatech AG, equipped the underground Löwenstrasse platform tracks at the Central Railway Station, the double-track Weinberg tunnel to Oerlikon and a parallel escape tunnel each with two EUCARAY® Radiating Cables for the tunnel radio system.

> The EUCARAY® Radiating Cables feature the unique "Neoport" fixing design, suitable to withstand the extreme forces generated by High Speed Train Services, which was specially developed by EUPEN in close partnership with the SBB.

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