

Signal Controlled Warning System (SCWS)



Overview

Network Rail requires the provision of a Signal Controlled Warning System device to aid track workers to operate more safely.

Network Rail have proposed and functionally described a simplified concept of how the SCWS is required to work on SSI systems and required Park Signalling to design and manufacture a prototype SCWS based on the described concept functionality, to enable:

- high reliability,
- high immunity to errors,
- being semi-permanent situated in Location Cases
- being "programmable / configurable" for customising to specific locations
- design to SIL 1 level

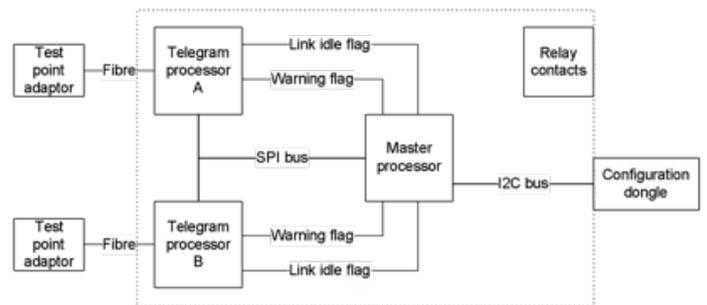
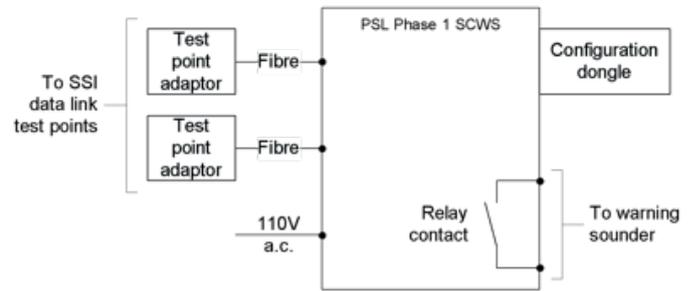
Requirement

The requirement specification for the design and manufacture of the (Phase I) SCWS is not yet prescribed and as such, the PSL product is based on interpretation of available information and will operate in principle as depicted in the following diagram.

Simplified operation

- PSL's SCWS "listens" to telegram traffic on the SSI Data Link channels
- SCWS constantly observes the status of track circuits, points detection and colour light signals (as applicable)
- A programme detects the prevailing conditions. If a train or subsequent train(s) are likely to enter the work area, a relay would be activated. This condition would operate a horn or similar warning device
- The SCWS is configured by means of a "dongle"

System schematics



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