

Ref:	NR/L2/SIGELP/27417/MODB
Issue:	1
Date:	5 December 2015
Compliance date:	5 March 2016

Level 2

Signalling Power Distribution Diagrams

Module B Guidance on Arrangement and Presentation of Drawings

Copyright Network Rail

Ref:	NR/L2/SIGELP/27417/MODB
Issue:	1
Date:	5 December 2015
Compliance date:	5 March 2016

Reference documentation

BS 376-2	Railway signalling symbols. Specification for symbols for circuit diagrams
BS 7645	Code for designation of colours
IEC 60617	Graphical symbols for diagrams
NR/L2/SIG/11201	Signalling Design Handbook
NR/L3/SIG/11303	Signalling Installation

Contents

1 Scope	3
2 Legacy engineering design	3
3 Symbols	3
4 Size to optimise clarity and ease of use	4
5 Colour presentation	4
6 Nomenclature for cables, wires and terminations	5
7 Presentation of not-yet-commissioned or redundant items	9

Figures

Figure 1a – Typical example of colour plotting (preferred), 'one drawing' method	7
Figure 1b – Typical example of colour shading (non-preferred), 'one drawing' method	8

Ref:	NR/L2/SIGELP/27417/MODB
Issue:	1
Date:	5 December 2015
Compliance date:	5 March 2016

1 Scope

This module gives guidance on the arrangement and presentation of engineering design to facilitate the provision of a comprehensive set of design records and achieve the design objectives of:

- Clear, accurate, consistent and unambiguous presentation;
- Completeness;
- Facilitation of construction (including stagework) and testing; and
- A design that functions and is fit for purpose.

It includes abridged guidelines from NR/L2/SIG/11201. For signalling power distribution network schematics and associated documentation, these may be satisfied by following the appropriate clauses.

2 Legacy engineering design

Engineering design should be provided to this standard, except where legacy engineering details conform to previous standards of presentation and the partial use of this standard would result in confusing information being presented. In such cases, the previous standards of presentation, format, symbols and units should be used, where appropriate.

Conformity of presentation to this standard should be considered if the engineering details are redrawn. It should be documented in the design specification which engineering details are to be redrawn in conjunction with the project.

3 Symbols

3.1 Single line (schematic) diagrams

Symbols used on signalling power schematics should comply with Module C, which are based on IEC 60617.

3.2 Detailed wiring diagrams

The following types of symbol are available for detailed design:

- The international wiring symbols defined in IEC 60617 are applicable to wiring diagrams (electrical power practice). These are suited to a geographical representation of an installation. Relay contacts are shown adjacent to their respective coils so do not require analysis.
- The written circuit symbols defined in BS 376-2 are applicable to wiring diagrams (signalling practice). These are suited to a straight line representation of circuits. Relay contacts should be analysed if they are shown on different sheets from their respective coils.

British and international symbols should not be intermixed on the same sheet.