PUBLISH (and be damned?)

BS EN 50174-1 AND BS EN 50174-2
-
THE NEW BRITISH STANDARDS FOR THE INSTALLATION OF IT CABLING

prepared and delivered by

The Cabling Partnership

14th December 2000
The Cabling Partnership

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- Training
- Design and specification
- Cabling and IT cost management
- Project management
- Audits and arbitration
BS EN 50174-1 AND BS EN 50174-2 - NEW BRITISH STANDARDS FOR IT CABLING INSTALLATION

Mike Gilmore

Standards

UK
• Fibreoptic Industry Association, Technical Director
• BSI, Chairman, TCT7/-/1: IT Cabling

PD1001: “EMC and Structured Cabling”
BS 7718: CoP “Installation of Fibre Optic Cabling”

Europe
• CENELEC, Convenor, TC215 WG1: IT Cabling

EN 50098-1: “ISDN Basic Access”
EN 50098-2: “ISDN Primary Rate”
EN 50173: “Generic - Design”
EN 50174-1: “Installation: Specification & QA”
EN 50346: “Testing of Installed Cabling”

International
• ISO/IEC, Member, JTC1 SC25 WG3: Generic Cabling

ISO/IEC 11801: “Generic - Design”
ISO/IEC 14763-1: “Administration”
ISO/IEC TR14763-2: “Planning and Installation”
ISO/IEC TR14763-3: “Testing Optical Cabling” and via IEC SC46A WG2
IEC 61935-1: “Testing Copper Cabling”

Training

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BS EN 50174-1 AND BS EN 50174-2 - NEW BRITISH STANDARDS FOR IT CABLING INSTALLATION

Agenda

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Structure and status
BS 6701?
BS 7718?
Break
BS EN 50174-1
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Installation Specification
Quality Planning
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Questions

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EN 50174-1: Specification and Quality Assurance
EN 50174-2: Installation planning and practices inside buildings
EN 50174-3: Installation planning and practices external to buildings

EN 50346
Information technology – Testing of Installed Cabling

EN 50173
Information technology – Generic Cabling Systems

Other cabling application standards
EN 50174 Status

EN 50174-1: Specification and Quality Assurance
APPROVED FOR PUBLICATION

EN 50174-2: Installation planning and practices inside buildings
APPROVED FOR PUBLICATION

EN 50174-3: Installation planning and practices external to buildings
TECHNICAL COMMITTEE ENQUIRY Q3, 2001
PUBLICATION IN 2002
BS EN 50174 Status

BS EN 50174-1: Specification and Quality Assurance

PUBLICATION JANUARY 2001

BS EN 50174-2: Installation planning and practices inside buildings

PUBLICATION JANUARY 2001
Existing UK Standards

- BS 7718: CoP “Installation of fibre optic cabling”
- BS 6701: CoP “Installation of apparatus intended for connection to certain telecommunications systems”
- BS 7671: “Requirements for electrical installations. IEE Wiring Regulations. Sixteenth edition”
### BS 6701

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#### Other references

- **BS 6701**
- **BS EN 50174-1**
- **BS EN 50174-2**
- **BS EN 50174-3**
- **EN 50346 (2002)**
## BS 7718

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Other references:
- FIA Guides
- EN 50346 (2002) and FIA Guides
- FIA Guides
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## Conformance to EN 50174

### EN 50174-1

- **principal contents**
  - clause 4: Specification considerations
    - Cabling infrastructure
    - Building environment (environmental aspects)
    - Cabling component choice
    - Termination points
    - Closures
    - Frames and cabinets
    - Pathways
    - Resilience
    - Wide area connections
  - clause 5: Quality assurance
  - clause 6: Documentation
  - clause 7: Cabling administration
  - clause 8: Repair and maintenance

### EN 50174-2

- **principal contents**
  - clause 4: Safety requirements
  - clause 5: General installation practices ...
  - clause 6: Additional installation practices ... copper
  - clause 7: Additional installation practices ... fibre

- **NO single conformance statement**
- true conformance based upon a two tier approach
  - basic conformance ("real shalls")
  - selection of other conformance issues ("optional shalls")
Impact on UK Standards

BS 7718: CoP “Installation of fibre optic cabling”

BS 6701: CoP “Installation of apparatus intended for connection to certain telecommunications systems”

- much of EN50174-1 and EN50174-2 is based on BS 7718 and BS 6701
- following publication of EN 50174
  - option to withdraw BS 7718
    - BS 7718 has a wider scope
    - requirement exists for modified BS 7718 to cover other applications
      - FIA Support Guides?
  - option to withdraw BS 6701
    - BS 6701 has a wider scope
    - requirement exists for modified BS 6701 to cover other issues
      - remove cabling from BS 6701
      - concentrate on equipment and facilities?
## FIA Guides

### 2000 SERIES DOCUMENT SET

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A Bit of a Do

EN 50174
Information technology – Cabling installation

EN 50174-1: Specification and Quality Assurance

EN 50174-2: Installation planning and practices inside buildings

EN 50174-3: Installation planning and practices external to buildings

Developed by CLC TC215 WG1

Developed by CLC TC215 WG2

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Perceived Problems: EN 50174-2

- Some requirements seem too lax
- Some requirements seem too strict
- Segregation of circuits
- Favours screened products
- Confuses optical fibre and copper requirements
- Some “shoulds” should be “shalls” and some “shalls” should be “shoulds”
- Focus on specifics rather than requirements
- Mismatch of terms
- Too much tutorial
BS EN 50174-1 AND BS EN 50174-2 - NEW BRITISH STANDARDS FOR IT CABLING INSTALLATION

Agenda

Session One

BS EN 50174

Structure and status
BS 6701?
BS 7718?

Break

BS EN 50174-1
Specification and Quality Assurance

Installation Specification
Quality Planning
Administration

Questions

Session Two

BS EN 50174-2
Installation planning and practices inside buildings

Safety
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Segregation of circuits

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Blanket acceptance or selective application

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Structure and status
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BS EN 50174-1
Specification and Quality Assurance

Installation Specification
Quality Planning Administration

Questions

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The Shalls and the Shoulds
The True Shalls
Planning
Quality Assurance Administration
Documentation
Alien Xtalk
EN 50174-1 Contents

- “intended to be referenced in contracts between cabling installers and their customers.”

- principal contents
  - clause 4: Specification considerations
    - Cabling infrastructure
    - Building environment (environmental aspects)
    - Cabling component choice
    - Termination points
    - Closures
    - Frames and cabinets
    - Pathways
    - Resilience
    - Wide area connections
  - clause 5: Quality assurance
  - clause 6: Documentation
  - clause 7: Cabling administration
  - clause 8: Repair and maintenance
The Shalls and the Shoulds

“true SHALLS” demand conformance

“SHOULDLS” indicate recommendations AND do not represent conformance to the standard

“SHALLS” within “SHOULDLS” text demand conformance only if a recommendation is followed

Optional SHALLS
True Shalls: BS EN 50174-1

"true SHALLS" demand conformance

BS EN 50174-1 CLAUSE 4
- specification (planning/design)
  - general considerations
  - component selection
  - termination points
  - closures
  - frames/cabinets
  - cable (cord) management
  - pathways and pathway systems
  - wide area networks

BS EN 50174-1 CLAUSE 5
- quality assurance
  - installation specification
  - quality plan

BS EN 50174-1 CLAUSE 7
- administration
  - administration considerations
  - identification and labelling
General Consideration “Shalls”

- consideration shall be given to:
  - the applications to be supported
  - the administration of the cabling
  - the number of termination points per user/square metre
  - the growth in demand for termination points
  - resilience requirements
Environmental Definition “Shalls”

- consideration shall be given to:
  - vibration
  - exposure to ultraviolet radiation and thermal effects
  - ingress of dust, fluids and other contaminants
  - chemical or biological attack
  - physical damage (accidental or malicious) including that caused by animals
  - presence, or potential presence, of hazards
  - the movement of air (e.g. fans, heating and ventilation systems)
  - temperature range
  - humidity including condensation and icing effects
  - lightning strike
  - wind effects
Component Selection “Shalls”

- components selected shall:
  - ensure that the installed cabling performance meets application requirements
  - be compatible with the storage, installation and operational environment
    - consideration shall be given to defined abnormal environmental conditions
  - be addressed in terms of potential risk of fire and/or explosion

- screened cables and connecting hardware selected shall:
  - be compatible such that termination maintains screening effectiveness

- screened cables shall be terminated:
  - using instructions as supplied by the manufacturer of the connecting hardware
  - without using the screen as a strain relief
Termination Point “Shalls”

- termination points **shall** be located in order to:
  - ensure that the installed cabling performance meets application requirements
  - allow safe access during installation, termination and operation of the connections
  - be consistent with space, floor loading and service demands of active equipment
  - minimize the risk of electromagnetic interference

- the number of termination points per work area **shall**:
  - reflect the proposed occupancy of the premises
  - reflect the predicted requirements of those occupants

- the space allocated to a termination point **shall**:
  - provide adequate clearances to eliminate damage to the cabling during installation
  - maintain cable suppliers/standards specified minimum cable bend radii
Closure “Shalls”

- closures shall be located in order to:
  - allow safe access during installation, termination and operation of the connections
  - provide appropriate environmental protection for the termination points

- closures shall:
  - provide strain relief to the cables
  - provide appropriate environmental protection for the termination points
  - maintain segregation rules for protection from electric shock defined in EN 50174-2
Frame/Cabinet “Shalls”

- Frames and cabinets shall be located in order to:
  - Allow safe access during installation, termination and operation of connections
    - Safe working height
    - Free from risk of contamination
    - Be provided with illumination (although not direct sunlight)
  - Be consistent with space, floor loading and service demands of active equipment
  - Allow 1.2 metres on each “access face”
  - Minimize the risk of electromagnetic interference

- Frames and cabinets shall:
  - Maintain segregation rules for protection from electric shock defined in EN 50174-2
  - Maintain cable suppliers/standards specified minimum cable bend radii
  - Provide adequate facilities for the effective management of cords
  - Provide appropriate environmental protection for their contents
  - Be earthed
EN 50174-1 Conformance: Specification (Planning)

Cable (Cord) Management “Shalls”

- effective management shall:
  - provide space for horizontal and vertical cable routeing fixtures
  - provide space for storage of excess cord length without risk of damage
  - minimize the length of patch and equipment cords
  - simplify the routeing of patch and equipment cords
  - not obstruct termination points
  - conform to cable suppliers/standards specified:
    - minimum cable bend radii
    - tensile loads
    - crush loads
Pathway and Pathway System “Shalls”

- pathways *shall* be located in order to:
  - allow safe access during installation, repair and maintenance
  - allow space for the cable installation apparatus
  - maintain cable suppliers/standards specified minimum cable bend radii
  - avoid environmental conditions outside those specified for the cable

- pathway systems *shall*:
  - not contain sharp edges or corners that could damage the cable
  - provide adequate access
  - maintain cable suppliers/standards specified minimum cable bend radii
    - within the system
    - within drawboxes
  - be in clean condition prior to installation of cables
Wide Area Network “Shalls”

- the external service/equipment provider **shall:**
  - advise as to the permissible distances between items of apparatus

- the user, installer and the external service/equipment provider **shall** agree:
  - the location of network termination points (NTPs)
  - the supply and capacity of the equipment
  - identification and numbering of circuits at the NTP
  - the boundaries of responsibility between public and private network
  - liaison and fault reporting procedures
  - access arrangements
Installation Specification “Shalls”

- the Installation Specification shall contain:
  - Technical Specification
  - Scope of Work
  - contract documentation
**Technical Specification Contents “Shalls”**

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**EN 50174-1 Conformance: Quality Assurance: Installation Specification**

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<th>SITE CONTACTS</th>
<th>CONTRACT TERMS</th>
<th>CHANGE PROCEDURES</th>
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<td>Operation requirements</td>
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<td>Site information</td>
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<td>Technical requirements</td>
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<td>Documentation (existing)</td>
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<td>Cabling compatibility</td>
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<td>Storage/security</td>
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Quality Plan “Shalls”

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<td>Interfaces</td>
<td>Training plans</td>
<td>Inspection and test regimes</td>
</tr>
<tr>
<td>Transfer of responsibility</td>
<td>Training records</td>
<td>Sampling plans</td>
</tr>
<tr>
<td></td>
<td>Qualifications</td>
<td>Test equipment</td>
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<td>Evidenciary requirements</td>
<td>Calibration and storage</td>
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<td>LEGACY CABLELING</td>
<td>Inspection routines</td>
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<td>Inspection and test regimes</td>
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<td>Sampling plans</td>
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<tr>
<td>Test equipment, calibration</td>
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</table>
Cabling Administration “Shalls”

- consideration shall be given to:
  - the compatibility between the administration system and:
    - the installed cabling
    - the documentation for the installation
  - the type of administration system
    - paper for small systems
    - sophisticated soft solutions for large buildings
Identification and Labelling “Shalls”

- labels **shall** be:
  - applied to provide easy access, reading and modification
  - robust and readable for the defined lifetime of the cabling elements
  - waterproof and “smudgeproof”
### Identification and Labelling Guides

<table>
<thead>
<tr>
<th>Pathways and Spaces</th>
<th>Unique and Unambiguous Identifier</th>
<th>Pathways and Spaces</th>
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<tr>
<td>Unique and Unambiguous Identifier</td>
<td>Pathways at entry to spaces from pathways</td>
<td>Pathways at entry to pathways from spaces</td>
</tr>
<tr>
<td>Pathways and Spaces</td>
<td>Pathways at entry to spaces</td>
<td>Pathways at entry to pathways from spaces</td>
</tr>
<tr>
<td>Pathways and Spaces</td>
<td>Pathways at each joint (multipair cables)</td>
<td>Pathways at each termination point including Consolidation Points</td>
</tr>
<tr>
<td>Pathways and Spaces</td>
<td>Pathways at each termination point including Ports</td>
<td>Pathways at each termination point including Ports</td>
</tr>
<tr>
<td>Pathways and Spaces</td>
<td>Pathways at each termination point including Ports</td>
<td>Pathways at each termination point including Ports</td>
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<td>Pathways at each termination point including Ports</td>
<td>Pathways at each termination point including Ports</td>
</tr>
<tr>
<td>Pathways and Spaces</td>
<td>Pathways at each termination point including Ports</td>
<td>Pathways at each termination point including Ports</td>
</tr>
</tbody>
</table>

### Records

- Pathways: interconnected spaces, type of pathway system, bonding points, Fill details
- Spaces: type location, pathways served, equipment contained, services provided

### LABELLING

- **Pathways and Spaces**
  - Pathways at entry to spaces from pathways
  - Pathways at entry to pathways from spaces
- **Fixed Cables, Bundles and Cords**
  - At both ends
  - At entry to spaces
  - At each joint (multipair cables)
- **Termination Points**
  - At each termination point including Consolidation Points
  - At each termination point including Ports
- **Eartfs/Bonds (Generic Cabling)**
  - All elements
6.1

.....
The proposed level of documentation ..... shall be detailed in the Installation Specification.

.....

Clause 6 details the recommended level of documentation
**Documentation**

<table>
<thead>
<tr>
<th>SHOULD</th>
<th>OPTIONAL</th>
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<tr>
<td>...cover all technical and contractual aspects...</td>
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</table>

<table>
<thead>
<tr>
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<th>OPTIONAL</th>
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</thead>
<tbody>
<tr>
<td>Installation Specification</td>
<td>Component acceptance documentation</td>
</tr>
<tr>
<td>Quality Plan</td>
<td></td>
</tr>
<tr>
<td>Final Cabling Documentation</td>
<td></td>
</tr>
<tr>
<td>Site plans (identification and layouts)</td>
<td>Hand-over certification</td>
</tr>
<tr>
<td>As-built documentation</td>
<td>Earthing and equipotential reports</td>
</tr>
<tr>
<td>Installed cabling test records</td>
<td></td>
</tr>
<tr>
<td>Conformance evidence</td>
<td></td>
</tr>
</tbody>
</table>
Alien Xtalk

4.7.8.1

.....
Long parallel runs where cables lie in a fixed relationship to each other may induce additional crosstalk and should be avoided UNLESS the impact has been taken into account in the specification of the cables and the installation.
BS EN 50174-1 AND BS EN 50174-2 - NEW BRITISH STANDARDS FOR IT CABLELING INSTALLATION

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BS EN 50174

Structure and status
BS 6701?
BS 7718?

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Administration

Questions

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Installation planning and practices inside buildings

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Installation practices
Segregation of circuits

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How to use the standards?

Blanket acceptance or selective application

Questions

Lunch
BS EN 50174-2

Contents
The Shalls and the Shoulds
The True Shalls
Safety
Installation practices
Segregation of circuits

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EN 50174-2 Contents

- detailed requirements and guidance for installation planning and practices inside buildings
- intended to be used by the personnel directly involved in planning and installation.

- principal contents
  - clause 4: Safety requirements
  - clause 5: General installation practices for metallic and optical fibre cabling
  - clause 6: Additional installation practices for metallic cabling
  - clause 7: Additional installation practices for optical fibre cabling
The Shalls and the Shoulds

“true SHALLS” demand conformance

“SHOULDLS” indicate recommendations AND
do not represent conformance to the standard

“SHALLS” within “SHOULDLS” text demand conformance only if a recommendation is followed

Optional SHALLS
True Shalls: BS EN 50174-2

**BS EN 50174-2 CLAUSE 4**
- safety
  - hazardous areas
  - protection against electric shock
  - equipment
  - pathway systems
  - termination points
  - closures
  - fire and chemical
  - explosive and asphyxiating gases
  - optical fibre

**BS EN 50174-1 CLAUSE 5**
- installation practices
  - delivery
  - pre-installation
  - cable installation
  - installation of closures
  - termination

**BS EN 50174-2 CLAUSE 6**
- additional installation practices (copper)
  - segregation rules
Hazardous Area “Shalls”

- provisions shall ensure that:
  - locations and boundaries of hazardous areas are identified
  - procedures for working in hazardous areas are made available
  - fire precautions shall be explained
  - escape routes are known
Protection Against Electric Shock “Shalls”

- active equipment connected to installed cabling shall be:
  - in accordance with the SELV circuit and TNV requirements of IEC 60950
  - in accordance with the relevant product standards w.r.t. PAES

- where used, conductive pathways systems shall be:
  - included in measures w.r.t. PAES in accordance with HD384 standards (BS 7671)

- where power and data share the same pathway system segregation shall be:
  - in accordance with the requirements of HD384 standards (BS 7671)
  - in accordance with segregation “shall” of EN 50174-2
  - whichever is the most stringent

- closures containing both termination of both power and data shall be:
  - designed to prevent unauthorized access to the mains power contacts
Fire and Chemical Issues “Shalls”

- components selected shall:
  - meet the requirements of relevant European product standards
  - pending the completion of the above - national regulations shall be met

- installation procedures shall not:
  - impair the fire behaviour of the components used
  - release dangerous substances from the cabling
EXPLOSIVE AND ASPHYXIATING GASES “SHALLS”

- National or local regulations shall be met regarding:
  - Ventilation of areas containing equipment such as lead acid batteries
  - The pre-ventilation and testing of enclosed spaces
  - Chambers
  - Drawpits
  - Ducts
  - Maintenance holes
EN 50174-2 Conformance: Safety

Optical Fibre “Shalls”

- practices **shall** be adopted to ensure that:
  - exposed skin and eyes are not in contact with exposed optical fibre “ends”
  - minimize the quantity of optical fibre waste
  - optical fibre waste is collected (not by hand) and transferred to suitable containers
  - optical fibre waste is disposed of by approved agencies

- optical fibre interfaces **shall**:
  - NOT be viewed directly unless the output power is known to be safe (IEC 60825-2)
  - be labelled with appropriate warning signs or text (IEC 60825-2)
Delivery and Pre-installation “Shalls”

• incoming goods shall be:
  • monitored during delivery to ensure freedom from damage
  • consistent with accompanying documentation
  • stored in a secure location
  • stored in accordance with specified environmental requirements

• prior to installation the installer shall:
  • NOT unpack cable until required (except for testing)
  • ensure that cable ends are taped/covered
  • check environmental aspects, availability and accessibility of:
    • pathways and pathways systems including catenary wires
    • installation apparatus
    • closures
  • “acclimatize” the cabling components
Cable Installation “Shalls”

- Pathways systems **shall**:
  - Conform to relevant European standards
    - Conduit: EN 50086 series, trunk and duct: EN 50085
    - Busbar trunking: EN 60439-2, tray and ladder: EN 61537

- The following practices **shall** be observed:
  - Minimum bend radii
  - Maximum pulling load
  - Installed in accordance with specified environmental requirements

- The following practices **shall not** be allowed:
  - Suspended pathways systems
  - Fixing of cables leading to deformation or damage to sheath
  - Joints other than those specified
  - Processes that degrade the environmental performance of the components
Closure Installation “Shalls”

• the cable entrance to a closure shall:
  • maintain the environmental performance of the closure
  • provide cable support and prevent kinking
  • provide strain relief (unless provided elsewhere)
  • for optical fibre
    • provide suitable cable glands
Termination “Shalls”

- cables shall be terminated:
  - using instructions as supplied by the manufacturer of the connecting hardware
  - using tools as recommended by the manufacturer of the connecting hardware
  - for copper
    - removing the minimum of cable sheath material
BS EN 50174-1 AND BS EN 50174-2 - NEW BRITISH STANDARDS FOR IT CABLE INSTALLATION

EN 50174-2 Conformance: Segregation of Circuits

Segregation “Shalls” - I

- detailed requirements and guidance for installation planning and practices inside buildings
- intended to be used by personnel directly involved in planning and installation.

- principal contents
  - clause 4: Safety requirements
  - clause 5: General installation practices for metallic and optical fibre cabling
  - clause 6: Additional installation practices for metallic cabling
  - clause 7: Additional installation practices for optical fibre cabling

CONFORMANCE FREE ZONE
- Tutorial and Guidelines “screening”
- Tutorial and Guidelines “electricity distribution systems and their earthing”
- Tutorial and Guidelines “segregation of circuits”
- Tutorial and Guidelines “cable containment”
- Tutorial and Guidelines “earthling”
- Tutorial and Guidelines “filters”
- Tutorial and Guidelines “electrical isolation”
- Tutorial and Guidelines “surge protection”
- Tutorial and Guidelines “lightning”

NORMATIVE from clause 5
Segregation “Shalls” - Horizontal Cabling

<table>
<thead>
<tr>
<th>Power cable</th>
<th>Data cable</th>
<th>A</th>
</tr>
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<tbody>
<tr>
<td>Unscreened</td>
<td>Unscreened</td>
<td>No divider or non-metallic divider</td>
</tr>
<tr>
<td>Unscreened</td>
<td>Screened</td>
<td>Aluminium divider</td>
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<tr>
<td>Screened</td>
<td>Unscreened</td>
<td>Steel divider</td>
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<tr>
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Separation shall exceed 130 mm for fluorescent, neon or hi discharge lamps

Cable crossing shall be at 90 degrees

Separation shall exceed 130 mm for fluorescent, neon or hi discharge lamps

Cable crossing shall be at 90 degrees

Separation shall exceed 130 mm for fluorescent, neon or hi discharge lamps

Cable crossing shall be at 90 degrees

Separation shall exceed 130 mm for fluorescent, neon or hi discharge lamps

Cable crossing shall be at 90 degrees
Segregation “Shalls” - Backbone Cabling

Segregation rules apply for all L

<table>
<thead>
<tr>
<th>Power cable</th>
<th>Data cable</th>
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<td>Screened</td>
<td>Unscreened</td>
<td>30 mm</td>
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<tr>
<td>Screened</td>
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<td>0 mm</td>
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Separation shall exceed 130 mm for fluorescent, neon or h-i discharge lamps

Cable crossing shall be at 90 degrees

These rules also apply to horizontal cabling when the electrical environment exceeds the levels of EN 50081/82

0 mm for L< 20 m
EN 50174-2 Conformance: Segregation of Circuits

BS 6701 Requirement (PAES)

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<tr>
<td>600 &lt; V a.c.</td>
<td>150 mm</td>
<td>50 mm</td>
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Assuming that interference issues have already been resolved.

These rules apply assuming that interference issues have already been resolved.

Assuming that power cabling insulation conforms to BS 7671.
BS EN 50174-1 AND BS EN 50174-2 - NEW BRITISH STANDARDS FOR IT CABLELING INSTALLATION

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How to use the standards?

Blanket acceptance or selective application
How to use the standards?

Responsibilities
Overview
Quality Manual Updates
BSI PD “Interpreter”
Early amendment of EN 50174-2

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How to use the standards?

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Questions
# Specification: BS EN 50174-1

## General Considerations: Overall Provision

<table>
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<th></th>
<th>Customer</th>
<th>Installer</th>
<th>Third Party</th>
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<tbody>
<tr>
<td>General considerations: overall provision</td>
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<tr>
<td>General considerations: environment</td>
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<td>Component selection</td>
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<td>Closures</td>
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<td>Cabinets</td>
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<td>Cable (cord) management</td>
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<td>Pathways</td>
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## Quality Assurance: BS EN 50174-1

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<td>Contract terms etc.</td>
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<td>Quality Plan</td>
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Administration: BS EN 50174-1

Responsibility

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# Safety: BS EN 50174-2

## Responsibility Chart

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<tbody>
<tr>
<td>Protection against electric shock</td>
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</tr>
<tr>
<td>Fire and chemical</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Explosive and asphyxiating gases</td>
<td></td>
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</tr>
<tr>
<td>Optical fibre</td>
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Practices: BS EN 50174-2

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<td></td>
<td></td>
</tr>
<tr>
<td>Segregation of circuits</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Overview

Unilateral conformance NOT possible

Beware of tenders request written conformance on a unilateral basis
Quality Manual Updates

- incorporation of BS EN 50174 into installers Quality Manuals
- incorporation of BS EN 50174 into installers Method Statements
- incorporation of BS EN 50174 into installers Safety Procedures
BSI PD “Interpreter”

It is possible to produce an “interpreter” IF INDUSTRY DEMANDS IT

PD1001: “EMC and Structured Cabling”
BS 7718: CoP “Installation of Fibre Optic Cabling”
PD1002: “OFTEL Wiring Guides”
PD1003: “Guide to BS EN 50174”

EN 50098-1: “ISDN Basic Access”
EN 50098-2: “ISDN Primary Rate”
EN 50173: “Generic - Design”
EN 50174-1: “Installation: Specification & QA”
EN 50346: “Testing of Installed Cabling”

ISO/IEC TR14763-2: “Planning and Installation”
ISO/IEC TR14763-3: “Testing Optical Cabling”
and via IEC SC46A WG2
IEC 61935-1: “Testing Copper Cabling”

ISO/IEC TR14763-2: “Planning and Installation”
ISO/IEC TR14763-3: “Testing Optical Cabling”
and via IEC SC46A WG2
IEC 61935-1: “Testing Copper Cabling”
Early Amendment of EN 50174-2

Some requirements seem too strict

Some requirements seem too lax

Favours screened products

Segregation

Confuses optical fibre and copper requirements

Mismatch of terms

NO QUICK FIX

Comments will have to be developed in a formal manner
- Fibreoptic Industry Association
- Telecommunications Industry Association
- Electrical Contractors Association

CENELEC TC 215 Plenary meets in April
- decision to work on an early amendment taken there
The End

- full colour copy of presentation
  - www.it-cabling.com/gendocs/pobd.pdf