



### Key

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|---|---|-----|--|
| 1 | existing mains (TN-C,TT,IT)                     | E   | electrical lines                       |
| 2 | new mains (TN-S,TN-CS,TT,IT)                    | S   | signal lines (shielded or unshielded)  |
| 3 | surge protective device (SPD)                   | ET  | earth termination system               |
| 4 | Class I standard isolation                      | BN  | bonding network                        |
| 5 | Class II double isolation without PE            | PE  | protective earthing conductor          |
| 6 | isolation transformer                           | FE  | functional earthing conductor (if any) |
| 7 | opto-coupler or fibre optic cable               | /// | 3-wire electrical line: L, N, PE       |
| 8 | adjacent routing of electrical and signal lines | //  | 2-wire electrical line: L, N           |
| 9 | shielded cable ducts                            | •   | bonding points (PE, FE, BN)            |

**Figure B.1 – Upgrading of LEMP protection measures and electromagnetic compatibility in existing structures**