

DIN 18014:2014-03 (E)

Foundation earth electrode - Planning, execution and documentation

Contents		Page
Foreword		3
1	Scope	4
2	Normative references	4
3	Terms and definitions	5
4	Requirements for foundation earth electrode design	7
4.1	General	7
4.2	Protective equipotential bonding via the main earthing busbar	8
4.3	Functional equipotential bonding	8
4.3.1	EMC requirements	8
4.3.2	Lightning protection systems	8
5	Execution	8
5.1	General	8
5.2	Foundation earth electrode	8
5.3	Ring earth electrode	9
5.4	Earth electrodes in plain concrete or fibre reinforced concrete foundations	9
5.5	Earth electrodes in reinforced concrete foundations	9
5.6	Pad foundations	9
5.7	Foundations with an enhanced earthing contact resistance	9
5.7.1	General	9
5.7.2	Common bonding network (CBN)	10
5.8	Connection components	10
5.9	Connections	11
6	Materials	11
6.1	Foundation earth electrodes and functional bonding conductors	11
6.2	Ring earth electrodes	11
6.3	Materials for connection components and connectors for foundation earth electrodes	12
6.4	Materials for connection components and connectors for ring earth electrodes	12
7	Documentation and resistance measurement	13
7.1	General	13
7.2	Documentation	13
7.3	Resistance measurement	13
Annex A (informative) Documentation form for foundation earth electrodes		26
Annex B (informative) Criteria for designing foundation earth electrodes		28
Bibliography		29