

DIN EN ISO 13174:2013-05 (E)

Cathodic protection of harbour installations (ISO 13174:2012)

Contents		Page
Foreword		3
Introduction		4
1	Scope	5
1.1	General	5
1.2	Structures	5
1.3	Materials	5
1.4	Environment	5
1.5	Safety and environment protection	6
2	Normative references	6
3	Terms and definitions	6
4	Competence of personnel	8
5	Design basis	9
5.1	Objectives	9
5.2	Cathodic protection criteria	9
5.3	Design parameters	10
5.4	Electrical current demand	11
5.5	Cathodic protection systems	13
5.6	Electrical continuity	15
5.7	Interactions	15
6	Impressed current systems	16
6.1	Objectives	16
6.2	Design considerations	16
6.3	Equipment considerations	17
7	Galvanic anode systems	20
7.1	Objectives	20
7.2	Design	20
7.3	Materials	20
7.4	Location of anodes	21
7.5	Installation	21
8	Commissioning, operation and maintenance	22
8.1	Objectives	22
8.2	Commissioning: galvanic systems	22
8.3	Commissioning: Impressed current systems	22
8.4	Operation and maintenance	23
9	Documentation	24
9.1	Objectives	24
9.2	Impressed current system	24
9.3	Galvanic anodes system	25
Annex A (informative)	Guidance for current requirements for cathodic protection of harbour installations	26

Annex B (informative) Anode resistance, current and life determination	28
Annex C (informative) Typical electrochemical characteristics of impressed current anodes	33
Annex D (informative) Guidance related to the design process	34
Bibliography	36