

DIN EN ISO 21593:2020-02 (E)

Ships and marine technology - Technical requirements for dry-dis connect/connect couplings for bunkering liquefied natural gas (ISO 21593:2019)

Contents	Page
European foreword	3
Foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 General requirements	7
4.1 General	7
4.2 Basic design principle	7
4.3 Design parameters	8
4.4 Functional requirements	9
4.5 Internal valve	9
4.6 Protective cap/plug	10
4.7 Handle	10
5 Materials	10
5.1 General	10
5.2 Body of coupling	10
5.3 Bolting	10
5.4 Spring	10
5.5 Seals	10
5.6 Welding	10
6 Interface types and dimensions	10
7 Marking	13
8 Testing	13
8.1 General	13
8.2 Ambient test conditions	14
8.3 Cryogenic test conditions	14
8.4 Test arrangement	15
8.5 Shell tightness at ambient temperature	16
8.6 Shell strength at ambient temperature	16
8.7 Internal valve tightness at ambient temperature	16
8.8 Internal valve strength at ambient temperature	17
8.9 Shell tightness at minimum working temperature	17
8.10 Internal valve tightness at minimum working temperature	17
8.11 Operation test at minimum working temperature	18
8.12 Electrical conductivity	18
8.13 Manual force at cold conditions under frost	18
8.14 Bending test	18
8.15 Drop test	19
8.16 Endurance test	19
8.17 High-pressure test	20
Bibliography	21