DIN EN ISO 9170-1:2020-09 (E)

Terminal units for medical gas pipeline systems - Part 1: Te rminal units for use with compressed medical gases and vacuum (ISO 9170-1:2017)

Contents

Page

European foreword ... **4**

Foreword ... **5**

Introduction ... **6**

1 Scope ... **7**

2 *Normative references ... **8**

3 Terms and definitions ... **8**

4 General requirements ... **12**
4.1 Safety ... 12
4.2 *Alternative construction ... 12
4.3 Materials ... 12

5 Design requirements ... **13**
5.1 Medical gas supply ... 13
5.2 Terminal units for different pressures ... 14
5.3 Retention of gas specificity ... 14
5.4 Gas-specific connection point ... 14
5.5 Terminal unit check valve ... 14
5.6 Terminal unit maintenance valve ... 14
5.7 Connection of terminal units to the pipeline (see also 9.2) ... 15
5.8 Socket ... 15
5.9 Compliance ... 15
5.10 Endurance (connection/release) ... 15
5.10.1 Socket ... 15
5.10.2 Probe ... 15
5.11 *Pressure drop ... 15
5.12 Connection force and torque ... 16
5.13 Disconnection force and torque ... 16
5.14 Mechanical strength ... 16
5.15 Leakage ... 17
5.16 Gas specificity ... 17
5.17 Effective connection of probes ... 17
5.18 Electrical requirements ... 17

6 Constructional requirements ... **17**
6.1 Cleaning ... 17
6.2 Lubricants ... 17

7 Test methods ... **17**
7.1 General ... 17
7.2 Test for endurance ... 18
7.3 Test for pressure drop ... 18
7.4 Test for connection force and torque ... 20
7.5 Test for disconnection force and torque ... 20
7.6 Test for mechanical strength ... 21
7.7 Test for leakage ... 21
7.8 Test for gas specificity ... 22
7.9 Test for effective connection of probe ... 22
7.10 Test for durability of markings and colour coding ... 22

8 Marking, colour coding and packaging **22**
8.1 Marking 22
8.2 Colour coding 22
8.3 Packaging 23
9 Information to be supplied by the manufacturer **23**
9.1 Technical description 23
9.2 Instructions 23
Annex A (informative) **Rationale** **24**
Annex B (informative) **Environmental aspects** **25**
Annex C (informative) **Special national and regional conditions for electrical installations** **27**
Bibliography **29**