

DIN EN ISO 5359:2012-04 (E)

Low-pressure hose assemblies for use with medical gases (ISO 5359:2008 + Amd 1:2011) (includes Amendment A1:2011)

Contents	Page
Introduction	6
0.1 General	6
0.2 Standardization of screw-threaded connectors for use in hose assemblies	6
1 Scope	8
2 Normative references	9
3 Terms and definitions	9
4 General requirements	12
4.1 Safety	12
4.2 * Alternative construction	13
4.3 Materials	13
4.4 Design requirements	13
4.4.1 Hose internal diameter	13
4.4.2 Mechanical strength	13
4.4.3 Deformation under pressure	14
4.4.4 Resistance to occlusion	14
4.4.5 Adhesion strength	14
4.4.6 Flexibility	14
4.4.7 Gas-specificity	14
4.4.8 End connectors	15
4.4.9 Design of NIST connectors	15
4.4.10 Design of DISS connectors	15
4.4.11 Design of SIS connectors	23
4.4.12 Joining hoses to hose inserts	23
4.4.13 Leakage	24
4.4.14 * Pressure drop	24
4.4.15 Expulsion of nipple	24
4.5 Constructional requirements	24
4.5.1 * Cleaning	24
4.5.2 * Lubricants	25
5 Test methods	25
5.1 General	25
5.1.1 Ambient conditions	25
5.1.2 Test gas	25
5.1.3 Reference conditions	25
5.2 Test method for pressure drop	25
5.3 Test method for leakage	25
5.3.1 For all hose assemblies	25
5.3.2 For hose assemblies fitted with a hose assembly check valve	25
5.4 Test method for gas-specificity	25
5.5 Test method for mechanical strength	26
5.6 Test method for deformation under pressure	26
5.7 Test method for resistance to occlusion	26
5.8 Test method for durability of markings and colour coding	28
6 Marking, colour coding and packaging	28

6.1	Marking	28
6.2	Colour coding	29
6.3	Packaging	29
7	Information to be supplied by the manufacturer	29
	Annex A (informative) Rationale	31
	Annex B (informative) Environmental aspects	32
	Annex C (informative) Reported regional and national deviations of colour coding and nomenclature for medical gases	33
	Bibliography	35
	Annex ZA (informative) Relationship between this International Standard and the Essential Requirements of EU Directive 93/42/EEC	36