

DIN EN 18039:2026-10 (E)

Mountaineering equipment - Autobelay devices for recreational use - Safety requirements and test methods

Contents

Page

European foreword	4
1 Scope	5
2 Normative references	5
3 Terms and definitions	6
4 Requirements	10
4.1 Design, materials and construction	10
4.1.1 General	10
4.1.2 Retractable safety line	10
4.1.3 Connecting element	11
4.1.4 Safety line extension	12
4.2 Retraction system	12
4.2.1 Retraction system check	12
4.2.2 Retraction system malfunction	12
4.2.3 Twisting	12
4.2.4 Retraction speed	13
4.3 Dynamic strength	13
4.3.1 Dynamic strength performance	13
4.3.2 Dyno performance	13
4.3.3 Freefall performance	13
4.3.4 Dynamic performance of energy dissipating element	14
4.4 Function	14
4.4.1 General	14
4.4.2 Standard use	14
4.4.3 Use in wet and cold conditions	14
4.4.4 Use in wet and very cold conditions	14
4.4.5 Use in dry and very cold conditions	14
4.5 Descent energy	15
4.6 Static strength	15
4.7 Corrosion resistance	16
5 Test methods	16
5.1 Test samples	16
5.2 Examination	16
5.3 Retraction system tests	16
5.3.1 Retraction system test	16
5.3.2 Retraction system malfunction	16
5.3.3 Twisting	18
5.3.4 Retraction speed	18
5.4 Dynamic strength tests	18
5.4.1 Impact force test of autobelay device	18
5.4.2 Dyno test of autobelay devices	20
5.4.3 Free fall performance test for autobelay device class B	21
5.4.4 Dynamic performance of safety line extension with energy dissipating element	23
5.5 Function tests	23
5.5.1 Dry condition	23
5.5.2 Wet condition	23
5.5.3 Wet and cold condition	23

5.5.4	Wet and very cold condition	23
5.5.5	Dry and very cold condition	24
5.5.6	Function test method	24
5.6	Descent energy test	24
5.7	Static strength test	26
5.7.1	General	26
5.7.2	Static strength test of the retractable safety line end in the autobelay device	26
5.7.3	Static strength test of the autobelay device	26
5.7.4	Static strength of the retractable safety line	27
5.8	Corrosion resistance test	27
6	Marking	27
6.1	General	27
6.2	On the device	27
6.3	On a termination of the retractable safety line	28
6.4	On the climb start	28
7	Manufacturer's instructions and information	28
Annex A (informative) Autobelay device belay gate		31
Annex B (informative) Examples for pictograms at autobelay device climbing start		32
Annex C (informative) Speed climbing immanent risk		33
Annex D (informative) Electrical supported systems		34
Annex E (informative) Standards on mountaineering equipment		35
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Regulation (EU) 2016/425 aimed to be covered		37
Bibliography		40