

DIN EN 14198:2026-05 (E)

Railway applications - Braking - Requirements for the brake system of trains hauled by locomotives

Contents		Page
European foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	7
4	Symbols and abbreviated terms	9
5	Requirements	9
5.1	General requirements of the train brake system	9
5.2	General safety requirements	9
5.2.1	Design principles	9
5.2.2	Fire protection	11
5.2.3	Environmental condition	11
5.3	Requirements of the main brake system	11
5.3.1	General requirements	11
5.3.2	General functions on train level	12
5.3.3	Additional requirements at the vehicle level	18
5.4	"EN-UIC" brake system - based on air brake system	19
5.4.1	General	19
5.4.2	General architecture	20
5.4.3	Brake subsystems	20
5.4.4	Functional requirements at train level	24
5.4.5	Design requirements	37
5.4.6	Brake functions at vehicle level	38
5.4.7	Brake system related markings	41
5.5	Direct EP brake control	41
5.6	Additional brake systems	41
5.6.1	Independent dynamic brake system	41
5.6.2	Independent direct brake	42
5.7	Brake management	44
5.7.1	Brake blending at vehicle level	44
5.7.2	Manual mode	45
5.7.3	Brake blending at train level	45
5.7.4	Jerk/ramps	46
5.8	Wheel slide protection	46
5.9	Compressed air supply	47
5.9.1	General requirements	47
5.9.2	Capacity	48
5.9.3	Air quality	48
5.10	Enhancement of wheel/rail adhesion	48
6	Performance	49
6.1	General aspects	49
6.2	Performance calculation	50
6.2.1	General	50
6.2.2	Calculations for nominal mode	51
6.2.3	Equivalent response and delay time	52
6.2.4	Calculations for degraded mode	52

6.2.5	Calculations for degraded conditions	52
6.3	Relevant load conditions	53
6.3.1	Locomotives	53
6.3.2	Coaches	53
6.3.3	Wagons	53
6.4	Service braking	53
6.5	Thermal capacity	54
6.6	Adhesion	55
6.6.1	General requirements	55
6.6.2	Emergency brake application	55
6.6.3	Service brake application	55
6.7	Parking brake performance	56
6.7.1	General	56
6.7.2	Static efficiency of rigging	56
6.7.3	Activation force	56
Annex A (normative) Vehicle requirements		57
Annex B (informative) Train related brake performance categories		61
Annex C (informative) Explanation of "proven design" concept		65
Annex D (informative) Corresponding standards EN - UIC		66
Annex E (normative) Brake pipe pressure control system		68
E.1	General requirements	68
E.2	Release position	69
E.3	Service brake application	70
E.4	Emergency brake application	70
E.5	Overcharge function	71
E.6	Quick release function	72
Annex F (normative) Venting performance of emergency valves		76
F.1	Purpose	76
F.2	General rules	76
F.3	Test procedure	76
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of Directive (EU) 2016/797 aimed to be covered		78
Bibliography		82