

DIN EN 15355:2024-08 (E)

Railway applications - Braking - Distributor valves and distributor-isolating devices (includes Amendment :2023)

Contents		Page
European foreword		4
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
4	Symbols and abbreviations	14
4.1	Symbols	14
4.2	Abbreviations	14
5	Requirements to function, design and manufacturing	14
5.1	Functional requirements	14
5.2	Control chamber	14
5.3	Pilot volume	14
5.4	Auxiliary reservoir volume and brake cylinder size	14
5.5	Shock and vibration	15
5.6	Service life	15
5.7	Compressed air quality	15
5.8	Environmental conditions	15
5.8.1	General	15
5.8.2	Ambient temperature	15
5.8.3	Altitude	15
5.8.4	Humidity	15
5.8.5	Other environmental specifications	16
5.9	Design requirements regarding structural integrity at maximum pressure	17
5.10	Tightness	17
5.11	Fire behaviour	17
6	Functional requirements and Type tests	17
6.1	General	17
6.2	Test benches	17
6.3	Functional requirements and tests	18
6.3.1	General	18
6.3.2	Tightness	18
6.3.3	Inexhaustibility	20
6.3.4	Compensation of output pressure during brake application	24
6.3.5	Normal working pressure	25
6.3.6	Released and stand by position	26
6.3.7	Maximum output pressure in relation to input pressure reduction	29
6.3.8	Maximum output pressure and build-up and release times of an individual distributor valve	30
6.3.9	Release time within a train consist	31
6.3.10	Sensitivity	32
6.3.11	Insensitivity	33
6.3.12	Control sensitivity and hysteresis	34
6.3.13	Quick service function	35
6.3.14	Propagation speed	36
6.3.15	Inshot function	37
6.3.16	Manual release function	38

6.3.17	Distributor isolating device	41
6.3.18	Protection against input pressure overcharge	46
6.3.19	Initial charging of the brake system of a vehicle	49
6.3.20	Initial charging of the brake system of a train	50
6.3.21	Maximum supply pressure	51
6.3.22	Tests at different temperatures	51
6.3.23	Shock and vibration	53
6.3.24	Distributor dump valve	54
7	In-service assessment	55
8	Designation	55
9	Identification and marking	55
9.1	Distributor valve	55
9.2	Distributor-isolating device	56
Annex A (normative) Test benches		57
A.1	General	57
A.2	Test bench Type A for single vehicle	57
A.3	Test bench Type B for train with 400 m length	59
A.4	Test bench Type C for train with 500 m length	59
A.5	Test bench Type D for train with 750 m length	59
A.6	Test bench Type E for train with 1 200 m length	59
Annex B (normative) Handle for operating the distributor-isolating device		60
Annex C (normative) In-service assessment		61
Annex D (normative) Handles for the activation of manual release functions		62
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of Directive (EU) 2016/797 aimed to be covered		64
Bibliography		66