DIN EN ISO 24478:2024-10 (E)

Railway applications - Braking - General vocabulary (ISO 24478:2023, including corrected version 2024-04)

Contents

Page

European foreword ... **3**

Foreword ... **4**

Introduction ... **5**

1 Scope ... **6**

2 Normative references ... **6**

3 Terms and definitions ... **6**

3.1 Basic definitions ... 6
3.2 Brake system compatibility ... 6
3.3 Performance ... 7
3.4 Purposes of braking ... 7
3.5 Mechanics of braking ... 7
3.6 Kinematics and dynamics of braking ... 9
3.7 Types and characteristics of brakes ... 14
3.8 Brake application and release ... 16
3.9 Brake control ... 17
3.9.1 General definitions ... 17
3.9.2 Types of control ... 18
3.9.3 Types of combined control ... 19
3.10 Brake system components ... 19
3.10.1 Components used for the command and control of braking ... 19
3.10.2 Sensors/indicators ... 21
3.10.3 Control assemblies ... 21
3.10.4 Brake control and/or system energy lines ... 22
3.10.5 Friction brake system components ... 23
3.10.6 Brake system energy storage ... 25
3.10.7 Compressed air supply ... 26
3.10.8 Ancillary air system equipment ... 26
3.10.9 Hydraulic pressure supply ... 26
3.10.10 Hand brake equipment ... 27
3.10.11 Parking brake equipment ... 27
3.11 Wheel slide protection (WSP) ... 27
3.12 Types of brake test ... 28

4 Symbols and abbreviated terms ... **28**

Annex A (informative) **Delay time and build-up time for brake application** ... **29**

Annex B (informative) **Delay time and release time for brake release** ... **30**

Annex C (informative) **Brake chart** ... **31**

Annex D (informative) **Overview of relationship between brake devices and signals** ... **34**

Annex E (informative) **System set up and components** ... **35**

Bibliography ... **38**