

DIN EN 13232-4:2012-01 (E)

Railway applications - Track - Switches and crossings - Part 4: Actuation, locking and detection (includes Amendment A1:2011)

Contents		Page
Foreword		3
1	Scope	5
2	Normative references	5
3	Terms and definitions	5
3.1	General	5
3.2	Actuation forces	7
3.3	Geometrical parameters	7
4	Design criteria	10
4.1	Parameters required	10
4.2	Calculations and verifications	11
4.2.1	Object detection between stock rail and switch rail	11
4.2.2	Calculation of minimum flangeway	11
4.2.3	Correct closing	12
4.2.4	Neutral position	13
4.2.5	Negative force	13
4.2.6	Mechanical integrity	13
5	Test methods	13
5.1	Obstacle detection	13
5.2	Minimum flangeway / free passage of wheel	13
5.3	Correct closing	14
5.4	Actuation force, F_a	14
5.5	Neutral position	14
5.6	Negative force	14
5.7	Trailability	15
5.7.1	General	15
5.7.2	Factory testing	15
5.7.3	Track testing	15
6	Acceptance	15
6.1	General	15
6.2	Standard testing (no prototypes)	15
6.3	Prototype testing	16
6.4	Testing requirements for change in flexibility	16
Annex A (informative) Commonly used values for obstacle detection		17
Annex B (informative) Commonly used values for flangeway		18
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2008/57/EC"		19