ISO 13012-1:2018-12 (E)

Rolling bearings - Accessories for sleeve type linear ball bearings - Part 1: Boundary dimensions, geometrical product specifications (GPS) and tolerances for ser ies 1 and 3

Contents

Page

Foreword iv

Introduction v

1 Scope 1

2 Normative references 1

3 Terms and definitions 2

4 Symbols 3
4.1 General 3
4.2 Closed and adjustable flangeless housings for series 1 sleeve type linear ball bearings 3
4.3 Closed and adjustable flanged housings for series 3 sleeve type linear ball bearings 3
4.4 Open flanged housings for series 3 sleeve type linear ball bearings 4
4.5 Closed and adjustable flangeless housings for series 3 sleeve type linear ball bearings 4
4.6 Open and open adjustable flangeless housings for series 3 sleeve type linear ball bearings 5
4.7 Standard height shaft support rails for series 3 sleeve type linear ball bearings 6
4.8 Low height shaft support rails for series 3 sleeve type linear ball bearings 6
4.9 Flanged shaft support blocks for series 1 and 3 sleeve type linear ball bearings 7
4.10 Flangeless shaft support blocks for series 1 and 3 sleeve type linear ball bearings 7
4.11 Solid and tubular shafts for series 1 and 3 sleeve type linear ball bearings 8

5 Housings 8
5.1 General 8
5.2 Housings for series 1 sleeve type linear ball bearings 8
5.3 Housings for series 3 sleeve type linear ball bearings 9

6 Shaft support rails 9

7 Shaft support blocks 9

8 Shafts 9
8.1 Material 9
8.2 Heat treatment 9
8.2.1 Surface hardened shafts 9
8.2.2 Through hardened shafts 9
8.3 Geometrical tolerances 10
8.3.1 Tolerance classes 10
8.3.2 Geometric form 10
8.3.3 Shaft length tolerances 10
8.3.4 Chamfers 10
8.3.5 Surface roughness 10

9 Boundary dimensions and tolerances 10
9.1 Housings 10
9.2 Shaft support rails 18
9.3 Shaft support blocks 21

9.4 Shafts 23

Bibliography 26