

DIN ISO 15242-4:2019-06 (E)

Rolling bearings - Measuring methods for vibration - Part 4: Radial cylindrical roller bearings with cylindrical bore and outside surface (ISO 15242-4:2017)

Contents	Page
National foreword	3
National Annex NA (informative)	4
Bibliography	4
Foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Measurement process	7
4.1 Rotational frequency	7
4.2 Bearing radial and axial loads	8
5 Measurement and evaluation methods	8
5.1 Physical quantity measured	8
5.2 Frequency domain	8
5.3 Measurement of pulses and spikes	9
5.4 Measurement	9
6 Conditions for measurement	9
6.1 Bearing conditions for measurement	9
6.1.1 Prelubricated bearings	9
6.1.2 Non-prelubricated bearings	10
6.2 Conditions of the measurement environment	10
6.3 Conditions for the measurement device	10
6.3.1 Stiffness of the spindle/mandrel arrangement	10
6.3.2 Loading mechanism	10
6.3.3 Magnitude and alignment of the external load applied to the bearing	10
6.3.4 Location of the transducer and direction of measurement	12
6.3.5 Mandrel	15
Annex A (normative) Measurement of external radial loading alignment	16
Annex B (normative) Measurement of external axial loading alignment	17