
**Rotating shaft vibration measuring
systems —**

Part 1:
Relative and absolute sensing of radial
vibration

Systèmes de mesure des vibrations des arbres tournants —

Partie 1: Captage relatif et captage absolu des vibrations radiales



Contents

1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Shaft vibration measuring systems overview.....	2
5 Sensing systems.....	4
5.1 Relative shaft-vibration measuring systems	4
5.2 Absolute shaft vibration measuring systems	6
6 Measurement uncertainties	9
6.1 Measurement principles.....	9
6.2 Accuracy requirements on the measuring system	9
6.3 Monitoring of critical machinery	13
7 Environmental conditions.....	13
7.1 Transducers	13
7.2 Non-integral conditioners	14
8 Calibration	15
8.1 Relative shaft vibration measuring systems.....	15
8.2 Absolute shaft vibration measuring systems	16
Annex A (informative) Mechanics of shaft vibration.....	17
Annex B (informative) Measurement quantities	18
Bibliography	22

© ISO 1998

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland