

DIN ISO 5348:2022-05 (E)

Mechanical vibration and shock - Mechanical mounting of accelerometers (ISO 5348:2021)

Contents	Page
National foreword	3
National Annex NA (informative) Bibliography	4
Foreword	5
Introduction	6
1 Scope	7
2 Normative references	7
3 Terms and definitions	7
4 Basics	7
5 Characteristics to be specified by manufacturers of accelerometers	10
6 Considerations for selecting a mounting method	10
6.1 General considerations	10
6.1.1 Procedures	10
6.1.2 Conditions	10
6.2 Specific considerations	11
6.2.1 Frequency range of operation	11
6.2.2 Transducer cable	11
6.3 Determination of the mounted fundamental resonance frequency	12
6.3.1 General	12
6.3.2 Vibration excitation method	12
6.3.3 Shock excitation methods	13
6.4 Recommendations for particular types of mountings	14
6.4.1 General	14
6.4.2 Stud mounting	15
6.4.3 Adhesive mounting	16
6.4.4 Magnets	19
6.4.5 Quick mount	19
6.4.6 Probe	20
6.4.7 Conical bolting	20
6.4.8 Low-percussion mounting devices for recording human exposure to vibration ..	21
6.4.9 Mounting by three-point support and ground spikes	21
6.4.10 Wedge anchors	21
6.4.11 Mounting fixtures	21
7 Typical frequency response for various types of mounting	22
8 Further mounting aspects	25
8.1 Base strain sensitivity of an accelerometer	25
8.2 Thermal mounting effects	25
8.3 Electrical ground loops	26
Bibliography	27