

ISO 532-1:2017-06 (E)

Acoustics - Methods for calculating loudness - Part 1: Zwicker method

| Contents | | Page |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 4 | Specification of input signal and instrumentation | 4 |
| 5 | Method for stationary sounds | 5 |
| 5.1 | General | 5 |
| 5.2 | Description of the method | 6 |
| 5.3 | Calculation of loudness and loudness level | 9 |
| 6 | Method for time-varying sounds | 12 |
| 6.1 | General | 12 |
| 6.2 | Description of the method | 13 |
| 6.3 | Calculation algorithm | 14 |
| 6.4 | Guidance for determining the loudness of time-varying sounds | 15 |
| 7 | Reporting data | 16 |
| Annex A (normative) | Numerical details and program code for the calculation of loudness of stationary and time-varying sounds (test implementation) | 17 |
| Annex B (normative) | Test signals for the validation of implementation | 45 |
| Annex C (informative) | Graphical user interface for the calculation of loudness of stationary and time-varying sounds | 48 |
| Annex D (informative) | Guidance for determining the loudness when using head and torso simulator microphones | 53 |
| Annex E (informative) | Uncertainty considerations | 54 |
| Bibliography | | 57 |