

DIN EN ISO 6145-7:2019-07 (E)

Gas analysis - Preparation of calibration gas mixtures using dynamic methods - Part 7: Thermal mass-flow controllers (ISO 6145-7:2018)

| Contents | | Page |
|--|---|-------------|
| European foreword | | 3 |
| Foreword | | 4 |
| 1 | Scope | 5 |
| 2 | Normative references | 5 |
| 3 | Terms and definitions | 5 |
| 4 | Symbols | 6 |
| 5 | Principle | 6 |
| 6 | Set-up | 6 |
| 6.1 | General | 6 |
| 6.2 | Thermal mass-flow controller using a constant current supply | 7 |
| 6.3 | Thermal mass-flow controller under constant temperature control | 7 |
| 7 | Preparation of gas mixtures | 8 |
| 7.1 | Description of the experimental procedure | 8 |
| 7.2 | Range of validity | 10 |
| 7.3 | Operating conditions | 10 |
| 8 | Calculations | 11 |
| 8.1 | Volume fraction | 11 |
| 8.2 | Sources of uncertainty | 11 |
| 8.3 | Uncertainty of measurement | 12 |
| Annex A (informative) Pre-mixed gases for the preparation of mixtures of high dilution | | 13 |
| Annex B (informative) Practical hints | | 14 |
| Annex C (informative) Calculation of uncertainties | | 16 |
| Bibliography | | 18 |