

# ISO 4373:2022-03 (E)

## Hydrometry - Water level measuring devices

---

| <b>Contents</b>   |   | <b>Page</b> |
|---|---|-------------|
| Foreword .....  |   | iv          |
| Introduction .....  |   | v           |
| <b>1</b>  | <b>Scope .....</b>                                      | <b>1</b>    |
| <b>2</b>  | <b>Normative references .....</b>                       | <b>1</b>    |
| <b>3</b>  | <b>Terms and definitions .....</b>                      | <b>1</b>    |
| <b>4</b>  | <b>Instruments specification .....</b>                  | <b>1</b>    |
| 4.1   | Performance parameters .....                            | 1           |
| 4.2   | Performance classification .....                        | 1           |
| 4.3   | Maximum rate of change .....                            | 3           |
| 4.4   | Environment .....                                       | 3           |
| 4.4.1   | General .....   | 3           |
| 4.4.2   | Temperature .....                                       | 3           |
| 4.4.3   | Relative humidity .....                                 | 3           |
| 4.5   | Timing .....  | 3           |
| 4.5.1   | General .....   | 3           |
| 4.5.2   | Digital .....   | 4           |
| 4.5.3   | Analogue .....  | 4           |
| <b>5</b>  | <b>Recording .....</b>                                  | <b>4</b>    |
| 5.1   | General .....   | 4           |
| 5.2   | Chart recorders .....                                   | 4           |
| 5.3   | Data loggers .....                                      | 4           |
| <b>6</b>  | <b>Enclosure .....</b>                                  | <b>4</b>    |
| <b>7</b>  | <b>Installation .....</b>                               | <b>5</b>    |
| <b>8</b>  | <b>Maintenance .....</b>                                | <b>5</b>    |
| <b>9</b>  | <b>Estimation of measurement uncertainty .....</b>      | <b>5</b>    |
| 9.1   | General .....   | 5           |
| 9.2   | Type A uncertainty estimation .....                     | 6           |
| 9.3   | Type B uncertainty estimation .....                     | 6           |
| 9.4   | Uncertainty in case of low water level conditions ..... | 7           |
| 9.5   | Level measurement datum .....                           | 7           |
| 9.6   | Combining primary measurement uncertainties .....       | 7           |
| <b>Annex A (informative) Types of water level measuring devices .....</b> |   | <b>8</b>    |
| <b>Annex B (informative) Manually operated measuring devices .....</b>    |   | <b>22</b>   |
| <b>Annex C (informative) Recording devices .....</b>                      |   | <b>25</b>   |
| <b>Bibliography .....</b>   |   | <b>27</b>   |