

# Material Datasheet — Round Levels (General)

## Overview

Bull's-eye (circular) levels for 2-axis leveling with compact footprint.

Suitable for mounting on machinery, fixtures, and hinge brackets where omnidirectional indication is desired.

Variants include magnetic bases, ball guides, and degree scales.

## Construction & materials (general)

| Item                   | Details  |
|------------------------|--|
| Vial material          | Borosilicate glass, stress-relieved; baked ceramic graduation lines            |
| Liquid                 | Stable optical liquid; typical colours: green / yellow-green; others available |
| Housing/body options   | Acrylic or polycarbonate bodies; metal carriers or frames where applicable     |
| Sealing / end closures | Standard end-seals or heat-sealed ampoules depending on vial type              |
| Marking/readability    | Graduation spacing suited to sensitivity; clear viewing window                 |

## Performance & sensitivity (UK terminology)

Sensitivity is the angle required to move the bubble by 2 mm. It is commonly expressed in arcminutes (′ per 2 mm) and can be expressed equivalently in mm/m for a 1 m baseline.

| Nominal sensitivity | Arcminutes (′) | Equivalent (mm/m)                  | Notes  |
|---------------------|----------------|------------------------------------|--|
| High sensitivity    | 7′ per 2 mm    | 2.04 mm/m (per 2 mm bubble travel) | Indicative; final readability depends on vial length and graduation. |
| Medium-high         | 10′ per 2 mm   | 2.91 mm/m (per 2 mm bubble travel) | Indicative; final readability depends on vial length and graduation. |
| General purpose     | 15′ per 2 mm   | 4.36 mm/m (per 2 mm bubble travel) | Indicative; final readability depends on vial length and graduation. |

## Environmental & durability (general)



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- Avoid impact/shock; glass vials are precision components.
- Use within stated service temperatures; thermal drift increases near the limits.
- Protect from aggressive solvents; clean with mild agents.
- Store horizontally and protect from prolonged UV exposure where applicable.

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