DATASHEET

# HALCON Calibration Plate, Aluminium Composite

MVTec HALCON calibration plate. A central reference circle is surrounded by smaller dot marks arranged in a regular grid. The asymmetric mark sizes allow `find_caltab` to determine board orientation without additional fiducials. Designed for use with the `find_caltab` and `calibrate_cameras` operators in HALCON 12 and later.

## 1 Ordering

| Part number | Size (W × H) | Mark grid | Central mark ⌀ | Grid mark ⌀ | Total marks |
|---|---|---|---|---|---|
| CT-HAL-P-200150 | 200 × 150 mm | 7 × 5 | 8 mm | 3 mm | 36 |
| CT-HAL-P-300200 | 300 × 200 mm | 7 × 7 | 10 mm | 4 mm | 50 |
| CT-HAL-P-400300 | 400 × 300 mm | 9 × 7 | 12 mm | 5 mm | 64 |
| CT-HAL-P-600400 | 600 × 400 mm | 11 × 9 | 14 mm | 6 mm | 100 |
| CT-HAL-P-800600 | 800 × 600 mm | 13 × 11 | 16 mm | 7 mm | 144 |

## 2 Key specifications

ACCURACY
±0.3 mm + 0.2 mm/m (any mark centre to nominal grid, at 20 °C)

SUBSTRATE
Aluminium / LDPE / aluminium composite, 6 mm

FLATNESS
≤ 0.5 mm per metre, board supported on three points

Unless stated otherwise, dimensions are nominal at 20 °C.

## 1 Specifications · geometry

| FEATURE | SPECIFICATION |
|---|---|
| Feature position tolerance | ±0.3 mm + 0.2 mm/m (any mark centre to nominal grid, at 20 °C) |
| Mark pitch, mean | ±0.05 mm |
| Circularity | ≤ 0.05 mm radial deviation |
| Edge radius | R6 mm |

## 2 Specifications · physical

| FEATURE | SPECIFICATION |
|---|---|
| Substrate | Aluminium / LDPE / aluminium composite, 6 mm |
| Weight | 6.6 kg/m² (300 × 200: ≈ 0.4 kg · 800 × 600: ≈ 3.2 kg) |
| Pattern | Direct UV print, matte, black on white; optical density ≥ 1.6 |
| Flatness | ≤ 0.5 mm per metre, board supported on three points |
| Mounting | 4 × M4 threaded inserts on the rear (300 × 200 and larger); ¼″ fixture ACC-A-FIX-14 clamps any size |

## 3 Specifications · environment

| FEATURE | SPECIFICATION |
|---|---|
| Operating temperature | –50 to +80 °C |
| Thermal expansion | ≈ 24 µm/(m·°C) |
| Storage | –20 to +60 °C, dry |
| Outdoor lifetime | up to 3 years (UV-stable print) |
| Cleaning | water or ≤ 70 % isopropyl alcohol, soft cloth |

## 4 Deliverables

| INCLUDED | | SERVICE | |
|---|---|---|---|
| Inspection report | CT-IR-, per board, dimensional + flatness + visual | Lead time | Made to order · ships in 2–3 weeks |
| Files | `.halcon.descr`, `.opencv.json`, `.dxf` | Options | Logo print (-L) · hard case (ACC-A-CSE) · custom NRE |
| Documents | this datasheet, CT-UM-GEN user manual | | |

## 5 Compliance & customs

| TOPIC | STATEMENT |
|---|---|
| RoHS | RoHS-compliant materials. |
| HS code | `9031 80` Not a toy. not for food contact. |

## 6 Revision history

| REV | DATE | CHANGE |
|---|---|---|
| A | 2026-10 | First issue, planning values |

## 7 Disclaimer

Values are nominal unless stated as measured; per-unit values are in the inspection report.

Product configuration, lead time and regulatory statements remain subject to the confirmations identified in this datasheet.

calib.tools/files/CT-DS-HAL-P