

CAMAG®

Automatic TLC Sampler 4 (ATS 4)

The ATS 4 is a device for fully automated sample application onto TLC and HPTLC plates. Samples can be applied as bands, spots or rectangles.



Automatic sample application is a key factor for productivity of the HPTLC laboratory. The ATS 4 offers fully automated sample application for qualitative and quantitative analyses as well as for preparative separations. It is suited for routine use and high sample throughput.

Key features

- Fully automated sample application
- Application of bands, spots or rectangles
- Any plate format up to 20 x 20 cm
- Spray-on application or by contact transfer
- Software-controlled by *visionCATS*
- Heated Spray Nozzle (option)

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FULLY AUTOMATED APPLICATION OF SAMPLES

With the ATS 4, samples are either applied as spots through contact transfer (0.1–5 µL) or as bands or rectangles (0.5 to > 50 µL) using the spray-on technique. Starting zones in the form of narrow bands offer the best separation attainable with a given chromatographic system. Application in the form of rectangles allows precise application of large volumes without damaging the layer. Prior to chromatography, these rectangles are focused into narrow bands with a solvent of high elution strength.

The ATS 4 allows "overspotting", i.e. a sequential application from different vials onto the same position. This technique can be used e.g. in pre-chromatographic derivatization, spiking, etc.

Operation of the ATS 4 with *visionCATS*

Precise sample application is a crucial factor for the quality of the HPTLC analysis. When using *visionCATS* HPTLC software to control the ATS 4, a fully automated sample application for routine use and high sample throughput is supported.

The dialog box for instrument parameters offers user-friendly default combinations. For instance, by selecting the solvent type most similar to the solvent actually used, the software automatically adapts the instrument defaults to match viscosity, volatility and surface tension. The filling/rinsing quality which determines how often the syringe is rinsed, the filling process repeated, etc., can be individually adjusted to a specific task.

The track assignment table is clearly arranged and easy to use. The application progress is displayed on screen as long as the instrument remains connected to the computer.



Heated Spray Nozzle for ATS 4

Heating at 60 °C cuts the time required for the application of aqueous solutions about in half. This is useful e.g. for trace analysis where comparatively large sample volumes have to be applied in order to reach a low detection limit.

Track Assignment Definition

| Tr. | Vial ID | Description | Vol. (µl) | Position | Type | SST |
|-----|---------|-----------------------------------|-----------|----------|-----------|-------------------------------------|
| 1 | R9787 | Borneol, Bornyl acetate, Linalool | 2.0 | B1 | Reference | <input checked="" type="checkbox"/> |
| 2 | S165 | Citronella oil | 2.0 | B2 | Sample | <input type="checkbox"/> |
| 3 | S2165 | Citronella oil | 2.0 | B3 | Sample | <input type="checkbox"/> |
| 4 | S2178 | Eucalyptus oil | 2.0 | B4 | Sample | <input type="checkbox"/> |
| 5 | S4366 | Eucalyptus oil | 2.0 | B5 | Sample | <input type="checkbox"/> |
| 6 | S1960 | Grapefruit oil | 2.0 | B6 | Sample | <input type="checkbox"/> |
| 7 | S2188 | Lemon oil | 2.0 | B7 | Sample | <input type="checkbox"/> |
| 8 | S2092 | Lime oil | 2.0 | B8 | Sample | <input type="checkbox"/> |
| 9 | S1972 | Sweet orange oil | 2.0 | B9 | Sample | <input type="checkbox"/> |
| 10 | S1975 | Sweet orange oil | 2.0 | B10 | Sample | <input type="checkbox"/> |
| 11 | S1385 | Tangerine oil | 2.0 | B11 | Sample | <input type="checkbox"/> |
| 12 | S178 | Cinnamon oil | 2.0 | C1 | Sample | <input type="checkbox"/> |
| 13 | S2068 | Cinnamon oil | 2.0 | C2 | Sample | <input type="checkbox"/> |
| 14 | S2067 | Lavender oil | 2.0 | C3 | Sample | <input type="checkbox"/> |
| 15 | S2185 | Lavender oil | 2.0 | C4 | Sample | <input type="checkbox"/> |

Track Assignment notes: OK Cancel

Track Assignment

Samples, standards, volume and vial positions are defined in the track assignment table.

Ordering Information

022.7400 CAMAG® Automatic TLC Sampler 4 (ATS 4)

for fully automatic application of samples as spots, bands or rectangles including overspotting in qualitative and quantitative HPTLC analysis. Complete with instrument cover, sample rack for 66 standard 2 mL vials, 90–230 V. Including Dosing Syringe Starter Kit (022.7450), containing: 25 µL Dosing syringe (695.0053), Spray-on needle for Dosing Syringe (695.0046), Contact transfer needle for Dosing Syringe (695.0047).

022.7410 CAMAG® Automatic TLC Sampler 4 (ATS 4)

with heated spray nozzle for fully automatic application of samples as spots, bands or rectangles including overspotting in qualitative and quantitative HPTLC analysis. Complete with instrument cover, sample rack for 66 standard 2 mL vials, 90–230 V. Including Dosing Syringe Starter Kit (022.7450), containing: 25 µL Dosing syringe (695.0053), Spray-on needle for Dosing Syringe (695.0046), Contact transfer needle for Dosing Syringe (695.0047).

028.0000 CAMAG® HPTLC Software *visionCATS* Basic Version

including access and control of all instruments - one server, one client, Instrument Diagnostics (xQ), analytical reports, access to Method Library. Needs to be purchased separately and is not included in any Ultimate Package.

Before installing *visionCATS*, please visit www.camag.com/visionCATS for recommended system requirements and further information.

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