

CHRONECT XPR

System specifications

CHRONECT XPR integrates precise dispensing and weighing technology into automated sample preparation.

Up to 32 solids are stored on a shelf in dispensing heads. All information about a solid is stored on an RFID chip and read out via the rack. SBS plates provide space for different vessel sizes in which the powders are to be weighed. Dosing and weighing is done with the XPR system from Mettler-Toledo. A six-axis robot takes care of transporting the powder heads into the scale, as well as placing the vessels under the dosing head.

The CHRONOS software controls the entire system. The SBS plates are displayed pictorially in the program. The solid material can be selected via a drop-down menu. Only those powders are listed that are currently on the shelf. Then, the quantity that needs to be dosed can be entered in the graphic of the plates. Simple functions, as known from Excel, facilitate the input in rows and columns. Every weighing is documented.

CHRONECT XPR is equipped with 3 SBS plates with 96 places each for 1 ml tubes. Three additional SBS plates and vials for 2, 4, 8, 10, 20 or 40 ml are available to expand the capacity of the measuring vessels.

The XYZ robot CHRONECT Robotic offers additional automation options: For substances that have to be stored in a sealed vial, the DeCapper Module allows the automatic screwing and unscrewing of the caps. CHRONECT Robotic also offers additional space for sample vials via tray holders as well as further tools and modules for automating sample preparation.

Dispensing

- **Dispensing range:** 1 mg - several grams
- **Dosing heads:** Up to 32 powder dispensing heads
- **Suitable chemicals:** Free-flowing, fluffy, granular, statically charged powders

Sample and Weighing:

- **Target vessel:** 1 mL to 8 mL vials in up to three SBS plates.
- **Dispensing time per component:** 10-60 seconds, depending on substance
- **Compatible balance models:** XPR226DRQ, other automatic balance models on request
- **Readability (fine range):** 0.01 mg (0.005 mg)
- **Minimum weight automatic (tolerance = 1 %):** 0.7 mg
- **Minimum weight automatic (USP, tolerance = 0.10 %):** 7 mg

Robot arm

- **Model:** Universal Robot UR3e
- **Robot type:** Collaborative
- **Robot specifications:** 6-axis / 3 kg payload
- **Handling tools:** gripper for handling vials, dispensing heads and adapters.

Laboratory robot

- **Model:** CHRONECT Robotic LSI, other CHRONECT Robotic models available depending on application.
- **Robot specifications:** XYZ robot
- **Handling tools:** DeCapper Module, holder for sample tray

Operating system

- **Operating and control:** PC with Windows 10
- **Task and formulation settings:** CHRONOS software
- **Data and report management:** CHRONOS software

Dimensions and weight

- **Dimensions W x D x H (mm) Platform:** 975 x 650 x 800
- **Platform weight:** approx. 100 kg
- **Dimensions W x D x H (mm) Controller Box UR3e:** 450 x 420 x 180 mm
- **Weight UR3e Controller Box:** approx. 10 kg
- **Dimensions W x D x H (mm) CHRONECT Robotic LSI:** 600 x 1000 x 1000
- **Weight CHRONECT Robotic LSI:** approx. 20 kg

Options:

- **Additional functions:** CHRONECT Robotic: on request
- **Additional options or modifications:** on request