

CHRONECT XPR

Robotic Powder and Liquid Dispensing



Boost Efficiency

Thanks to the 6-axis robotic arm, highly accurate multi-component formulations and calibration standards can be prepared fully automatically, freeing up time to work on other tasks.



Maximize Sample Yield

The XPR automated dispensing technology enables samples as small as 1 mg to be dispensed with the highest precision. Automated dispensing minimizes spillage and maximizes the yield of your valuable samples.



Dispense with Flexibility

CHRONECT XPR can accommodate 3 different vial plates, each holding from 15 up to 96 vials of 1–20 mL volume. With space for up to 32 powders and 6 liquids you have the ultimate flexibility in dispensing.



Maintain Full Control

CHRONOS software enables you to schedule multiple multi-component formulations. The dispensing process can be monitored directly in CHRONOS and, if desired, weighing data is sent to LabX™ Balance which supports 21 CFR part 11 compliance.



Fully Automated Preparation Of Powder Formulations and Solutions

In a fully automatic process, the CHRONECT XPR robotic dispensing platform enables you to prepare up to 288 samples or solutions, consisting of up to 32 powders and 6 liquids.

This unique system combines the advanced weighing and dispensing technology of the XPR Automatic Balance with a state-of-the-art 6-axis robotic arm and the easy-to-use CHRONOS software. It offers unprecedented accuracy, repeatability, efficiency, and flexibility. CHRONECT XPR dispenses from 1 mg up to several grams of powder substances.

The robotic dispensing platform can be equipped with the optional CHRONECT Liquid Module to enable the automatic dispensing of 100 mg to 10 g of solvents.

Thanks to the compact footprint, the platform can be set-up on any lab bench as well as in cabinets and glove boxes.

Fully Automated Preparation of Multi-Component Formulations and Solutions

The CHRONECT XPR robotic dispensing platform consists of the following main components:

- XPR226DRQ Automatic Balance
- UR3e 6-axis robot arm with gripper
- Vial plate holder for up to 3 plates
- Powder dosing head rack with 32 positions and RFID readers
- PC with CHRONOS software

It can be expanded with the following optional components:

- CHRONECT Liquid Module for up to 6 solvents
- LabX Balance software, supports data integrity requirements and 21 CFR part 11 compliance
- Additional integrated robotic systems (capping, vortexing, barcode reading, etc.)



Technical Data

		Powders	Liquids*
Dispensing	Dispensing range	1 mg – several grams	100 mg – several grams
	Dosing heads	Up to 32 powder dosing heads	Up to 6 liquid dosing heads
	Suitable chemicals	Free-flowing, fluffy, granular, statically charged powders	Low-viscosity solvents (<20 cP)
Sample and Weighing	Target vessel	1 mL to 20 mL vials in up to three SBS plates	
	Dispensing time per component	10–60 seconds, depending on the substance	
	Compatible balance models	XPR226DRQ, other Automatic Balance models on request	
	Readability (full range/fine range)	0.01 / 0.005 mg	
	Minimum weight automated (tolerance = 1%)	0.7 mg	
	Minimum weight automated (USP, tolerance = 0.10%)	7 mg	
Robot Arm	Model	Universal Robot UR3e – Collaborative Robot	
	Handling tools	Gripper for handling vials, dosing heads and adapters	
Operating System	Design, operating and control	PC with Windows 10 + CHRONOS	
	Data and report management	CHRONOS, LabX Balance (optional)	
Options	CHRONECT Liquid Module	Dispensing up to 6 different solvents	
	Additional capabilities and modifications	On request	
Platform	Dimensions, W x D x H	1000 x 700 x 750 mm (1100 x 700 x 850 mm incl. Liquid Module)	
	Weight	ca. 100 kg	

*only with optional CHRONECT Liquid Module

Collaboration Partner Axel Semrau GmbH & Co. KG

The CHRONECT platform is a joint collaboration between METTLER TOLEDO, Switzerland and Axel Semrau, Germany. With over 40 years of experience in the development and sales of laboratory automation systems, Axel Semrau is the professional partner that offers, manufactures, distributes and maintains the CHRONECT XPR solution. Axel Semrau is part of Trajan Family, which offers a global sales and support network for the product.

For more information: www.axelsemrau.de

