

Cavro[®] Magni Flex.

LATEST OEM ROBOTIC DEVELOPMENT
PLATFORM FROM THE LIQUID
HANDLING EXPERTS

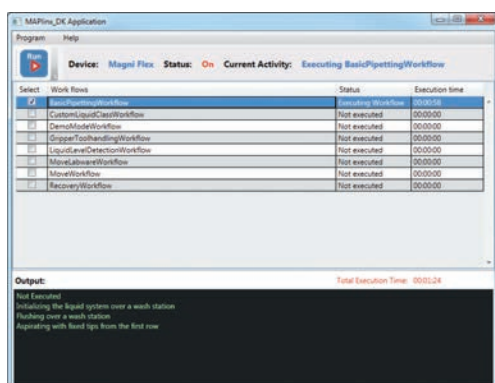
NEW!

Liquid handling and robotics made easy

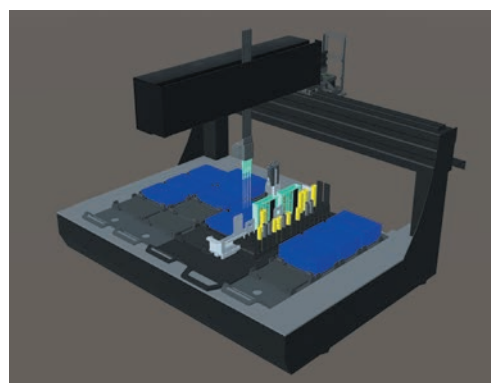
The Cavro Magni Flex represents a comprehensive, modular liquid handling framework that is designed to easily integrate into almost any system, in a wide range of laboratory processes – from immunoassay processing to molecular diagnostics – allowing instrument designers to concentrate on their applications.

Key benefits

- **Adaptable and flexible** – two, four or eight independent channels provides variable spacing capabilities, enabling the use of different labware formats to match the needs for your specific application
- **Proven and reliable** – the low maintenance Cavro Pulsar PBC piston pumps offer a 5 to 1,000 µl liquid handling range for broad application flexibility
- **Channel grippers** – using the existing channels as gripper extensions eliminates the need for an additional arm for labware handling
- **Auto-alignment** – automatically align the robotic arm for quick on-site set-up
- **Software development kit** – to accelerate end-user software development, offering:
 - Higher level command functions for easy robotic programming
 - Multichannel synchronization and collision avoidance
 - Drag and drop customizable
- **3D simulator** – standalone software that emulates hardware commands in 3D, allowing methods to be developed, tested and improved before the hardware is even available



Application-based examples to expedite workflow creation.



3D simulator designed to simplify software programming and testing.

Magni Flex is the ideal starting platform for your next instrument design with multichannel liquid handling needs. Designed for OEM customers who are looking to quickly develop an automated liquid handling solution, the Cavro Magni Flex provides a core robotic architecture that can evolve into a complete automation solution addressing your specific application needs.



Specifications

Power requirements			
Operating voltage	100 to 240 VAC, 50/60 Hz		
Power supply rating	480 W		
Maximal power per output @ 24 V	95 W continuous, 200 W for max. 120 s		
Communications			
To other Tecan devices	CAN2 ⁽⁰⁾ 500 kb/s	CAN1 ⁽⁰⁾ 100 kb/s	
To host	USB		
Mechanical			
Travel length	X-axis	Y-axis	Z-axis
Functional/partial access			
2-channel	691 mm	445 ⁽¹⁾ / 454 ⁽²⁾ mm	143 ⁽³⁾ / 180 ⁽⁴⁾ mm
4-channel	691 mm	388 ⁽¹⁾ / 414 ⁽²⁾ mm	143 ⁽³⁾ / 180 ⁽⁴⁾ mm
8-channel	653 mm	353 ⁽¹⁾ / 414 ⁽²⁾ mm	143 ⁽³⁾ / 180 ⁽⁴⁾ mm
Maximum speed			
Speed	750 mm/s	300 mm/s	400 mm/s
Acceleration	1,000 mm/s ²	1,500 mm/s ²	2,400 mm/s ²
Resolution	0.02 mm	0.05 mm	0.0013 mm
Payload (per channel gripper pair)	N/A	N/A	400 g
Accuracy	± 0.6 mm	± 0.6 mm	± 0.6 mm
Dimensions (5 grid deck with channel arm)	2-channel	4-channel	8-channel
Width	878 mm	878 mm	878 mm
Depth	737.5 mm	737.5 mm	737.5 mm
Height	795.5 mm	795.5 mm	795.5 mm
Weight (includes arms, deck, grippers, pumps)	42 kg	44 kg	52 kg
Motor driver technology	X-axis	Y-axis	Z-axis
	Field-oriented control with incremental encoder	DC with incremental encoder	DC with incremental encoder
Options			
Tecan tip option	Standard fixed tips		
Software and programming			
Required OS	Windows® 10 OS		
Environment requirements			
Operating	20–27 °C / 68–81 °F		
	30–60 % relative humidity, not condensing at 30 °C or below		
	Altitude 0–2,000 m above sea level		

(0) Tecan-specific protocol

(1) Each channel individually

(2) All channels together

(3) With standard fixed tips, until worktable top

(4) With standard fixed tips, maximum (below worktable)

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