CHCNAV

SprayX100

APPLICATION CONTROL SYSTEM



AGRICULTURE

CHCNAV

AUTOMATED CONTROL HIGH PRECISION BROAD COMPATIBILITY

The SprayX100 system includes a high-performance controller, valve kit, and GNSS tablet, adding advanced automation to spraying equipment. It ensures precise, efficient application with automatic spray and section control. When integrated with an automated steering system, the SprayX100 synchronizes spraying with automated driving, enhancing precision farming.

SUPERIOR SPRAYING ACCURACY

The system offers both speed-based and fixed-rate modes for precise application. In speed-based mode, the spraying rate adjusts dynamically to match the vehicle's speed, preventing skipped or overlapped areas at field headlands and ensuring ±5% spraying accuracy(*). In fixed-rate mode, the system maintains a constant flow rate, ensuring consistent spraying even without GNSS. Supporting speeds of up to 30 km/h, it maximizes efficiency in pesticide application.

*Data based on standard testing conditions.

ROBUST CONTROLLER FOR ENHANCED DURABILITY

Built from corrosion-resistant ADC12 material with a powder-coated finish, the SprayX100 controller is resistant to pesticide exposure. With an IP67 rating, it is fully sealed against dust and water, ensuring reliable performance in harsh field conditions. The system is compatible with multiple valve brands (GEOLINE, ARAG, etc.) and supports up to 13-section valve control.

SEAMLESS INTEGRATION WITH AUTOSTEERING SYSTEMS

The system integrates seamlessly with CHCNAV's autosteering and guidance systems, sharing the same display to reduce costs and keep the cabin more organized. The spray boom switch syncs with the auto-guidance system, enabling users to start or stop both functions with a single button. This streamlined operation simplifies workflow, boosts efficiency, and makes the spraying process more user-friendly and productive.

AUTOMATIC SECTION CONTROL

SprayX100 utilizes real-time operation path detection to enable automatic spray boom section control. When entering a previously sprayed area, the corresponding sections shut off automatically, and when moving into an unsprayed area, they reactivate instantly. As the equipment approaches or crosses boundaries, the spray boom adjusts in real time, eliminating manual intervention and improving operational efficiency. Users can also monitor the operation path in real time, with clearly marked sections and visual progress tracking, providing an intuitive overview of the work status.

AUTOMATED SPRAYING CONTROL SYSTEM



Antenna



Controller





Display



Valve Group

SprayX100 is compatible with:



NX612



NX510



X10



Guide10

SPECIFICATIONS

Controller	
Power Supply	DC 9-36V
Section Control	Maximum 13 sections
Communication	CAN
Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Dustproof and Waterproof	IP67

Valve Group	
Flow Rate	10~200 L/min
Pressure Resistance	20 bar (2MPa)
Operating Pressure	1.0~12 bar (0.1~1.2MPa)
Section Valves	Quantity: 5 Switching time: ≤0.5 s
Main Valve	Quantity: 1 Operating time: ≤0.5 s
Proportional Valve	Quantity: 1 Switching time: ≤7 s
Flowmeter	Quantity: 1
Pressure Sensor	Quantity: 1
Working Temperature	+3°C to +60°C
Storage Temperature	-40°C to +60°C

Display	
Power supply	DC 9~36 V
Dimension	281 mm x 181 mm x 42 mm
Screen	Size:10.1" Resolution: 1024 x 600 Brightness: 750 nits
Communications	WiFi 2.4G, Bluetooth 4.2
Network	2G/3G/4G
GLONASS	L1/L2
Galileo	E1/E5a/E5b
BDS	B1I/B2I/B3I/B1c/B2a/B2b
GPS	L1/L2/L5
QZSS	L1/L2
SBAS	Yes
Working Temperature	-20°C to +70°C
Storage Temperature	-40°C to +80°C
Dustproof & Waterproof	IP65

GNSS Antenna	
Dimension	Φ150 mm x 61 mm
Connector	TNC-K
Working temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Dustproof & Waterproof	IP67

* Specifications are subject to change without notice.

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