

Agriculture Control Module

SM-1X



Modular Architecture

Universal Compatibility (ISOBUS Ready)

Designed to fit many manure spreader implements, the SM-1X provides a universal and reliable solution to control key functions, such as rate- and section control.

Modular and developed under ISOBUS protocol, it's customizable with the option of integrating into 3rd party systems or complementing a complete Topcon solution. And with an IP67 rating, the SM-1X controller is built to withstand the harsh conditions of agriculture.

ELECTRICAL

Supply Voltage	9 - 30V dc (24V operation requires external transient protection)
Supply Current	< 500mA (with no load)
Maximum Supply Current	20A
Communications Ports	2 x CAN 2.0B
EMC	ISO 14982 (Forestry and Agricultural Machinery) For Bluetooth option also: FCC CFR 47, ICES-003 and EN 301 489-17 (RED)

PHYSICAL

Sealing	IP67
Vibration / Humidity / Operating / Temperature etc.	Conforms with Topcon Environmental Test Specification MIN_SP_001 (Details on request).
Dimensions	External: H 8.42 in (214 mm) x L 5.94 in (151 mm) x W 1.81 in (46 mm) Center of Mount Holes: H 5.35 in (136 mm) x L 3.54 in (90 mm)

INPUTS / OUTPUTS

Outouts	30 Outputs Total: 18 x 5A H-Bridges, 8 of which are PWM capable 12 x 3A High Side Drivers Current / Power sensing on all outputs. Maximum switched current: 20A
Inputs	25 Inputs Total: 5 x ID Inputs (settable in the loom) 4 x Low Speed Status Inputs 7 x High Speed (10kHz max) Inputs for encoders etc 9 x Multi-Function Inputs (0.5V, 4-20mA Digital). 10kHz max when used in digital mode
Hardware Interlock	Hardware interlock to all outputs
Sensor Power	Both protected +5V and supply voltages available for powered sensors
LEDs	Power / Status

PROCESSOR

Real-Time Processor	ARM M4 core running at 168MHz
Non Volatile Storage	8M Byte

