



VMA01

Modular Armrest

VOLBUFF

SENSORS

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1 Product Description

VMA modular intelligent multifunctional electronic control armrest box, can be equipped with a full electrical control handle or mechanical handle, A variety of rocker switches or button modules are available to customize upon request, Ergonomic design, more user-friendly, improve driving comfort, designed for small and medium-sized cabs. Meet personalized needs.

The fingertip operation is used to mobilize the switch to easily control the hydraulic function, making your agricultural machine operation more convenient. Thumb wheel and rocker switches, It is convenient for you to quickly adjust agricultural machinery and equipment to improve work efficiency, The specialized handle operation module meets the safety requirements and ensures your operational safety.

The main features are as follows:

- Clearly designed: Colours, symbols, function and night illumination
- Practical: Storage compartment with USB charging socket for smartphones
- Plug&play: CANopen
- The modular armrest box is equipped with a multifunctional handle, which can achieve fatigue-free operation
- The handrail has a cushioned, which makes the operator feel comfortable and has sustainability and environmental protection.

2 Technical parameters

Electrical parameters

Operating voltage	9-30V DC
Current consumption	≤3A Max
Protocol	CANopen
Polarity reversal protection	Yes
Node ID/Source address	Variable/adjustable
Baud rate	250Kbps(125Kbps、 500Kbps Optional)

Environmental parameters

Mechanical protection level	IP44 ISO20653
Electrical protection level	IP53 ISO20653
Working temperature	-25℃ ~ 85℃
Storage temperature	-40℃ ~ 85℃

3 Armrest module



Joystick& hand throttle module

① Heavy duty joystick

Heavy-duty joysticks are available for a variety of mechanical modules. You choose whether to have a limit or not, a single axis or a double axis. This joystick comes with a button module so you can perform your machine functions in the best possible way.

② Multi-function joystick

The newly designed multi-functional handle can also achieve fatigue-free operation, which is in line with ergonomic design. It can configure up to six buttons or Three buttons and Two finger wheel switch to ensure the precise operation of the front-end loader and other hydraulic functions.

③ Hand throttle

The hand throttle design is used to control the engine speed. The embedded on the top cover can be selected to clearly marked the function.

Operating unit module

① Push buttons

The push buttons can be assigned to functions such as all-wheel drive or differential lock as required. Thanks to Hall sensor technology, the push buttons are extremely durable. The button inlays are available in various Colours and with abrasion-resistant, back printed symbols as well as with

② PTOs

The PTO switch is a rugged,intuitive push button with an emergency stop function,primarily used in agricultural machinery for the safe opening and closing of the front or rear PTO shaft.

③ Fingertip joysticks

The fingertip joysticks have been designed with angled actuators and a soft touch finger rest for maximum operating comfort and user-friendliness.The actuator caps are colour codeable and with a choice of symbols to clearly indicate function.The fingertip joysticks are ideal for operating hydraulic controlling devices.



Armrest & storage compartment module



① Armrest

The armrest is padded for the comfort of the operator, but as it is covered with organically produced high quality leather, it is also sustainable and environmentally friendly. It is as durable and wear-resistant as chemically produced covering materials and does not contain harmful plasticizers.

② Storage compartment under the armrest

The storage compartment contains even more operating elements for additional functions. A maximum of 5 additional buttons can be provided, and a USB socket for charging smartphones.

Knob switch & potentiometer module

① Knob switch

A potentiometer is used for position and tension control of accessories such as plows. Inlays can be used to clearly mark features using standardized symbols.

② Potentiometer switch

A potentiometer is used to control the rising or descending speed of accessories such as plows.

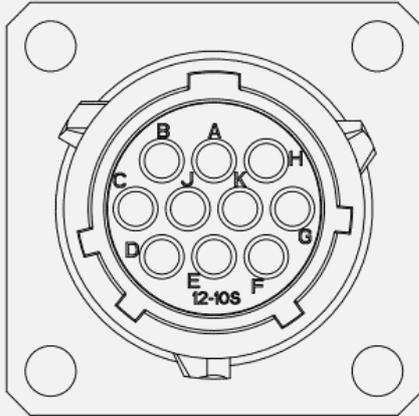


Connect the module

① Connector connection

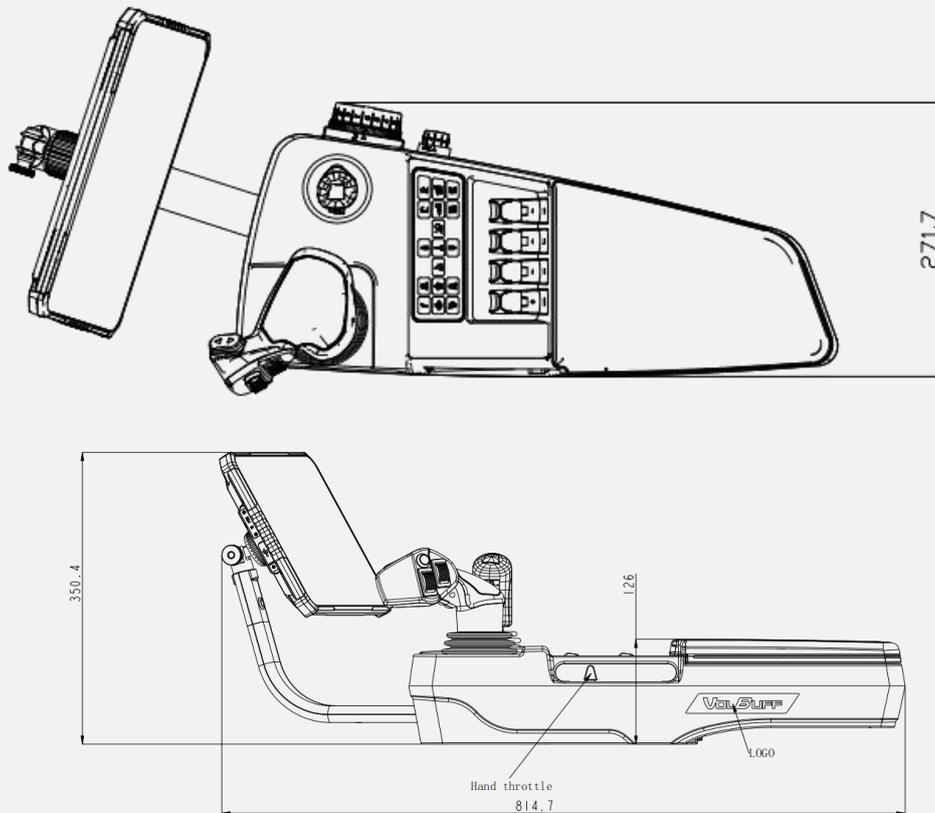
Convenient and direct connection via connectors integrated in the housing. The signals of all operating elements are collected as standard on the motherboard in the armrest and are communicated to the outside via CAN bus using a 6-pole Tyco Junior Power Timer.

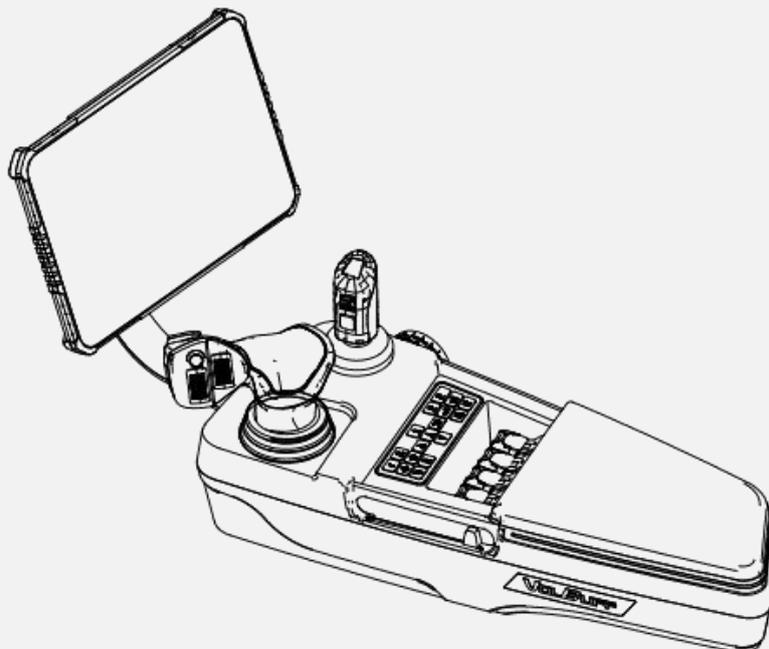
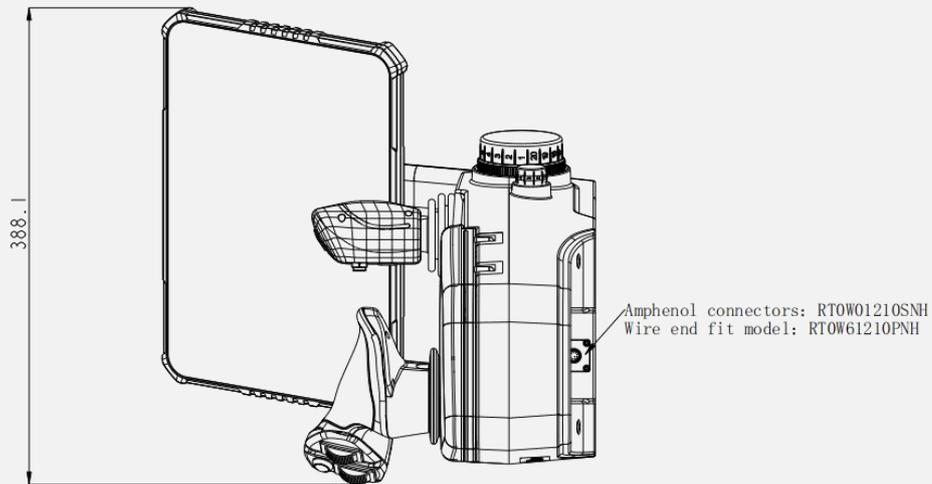
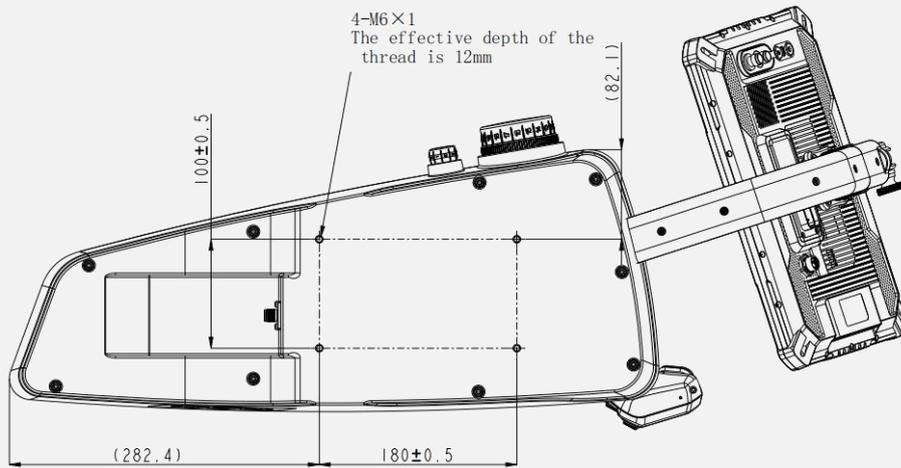
4 Interface definition



PIN	Definition
A	VCC
B	GND
C	CAN-H
D	CAN-L
E	NC
F	NC
G	NC
H	NC
I	NC
J	NC

5 Installation size





6 Precautions for use

(1) The power supply of this product uses an independent power supply. It is recommended not to connect with other loads. During use, the power supply does not allow serious safety hazards or instability, otherwise it will cause the product to fail!



(2) When using the product, please operate strictly in accordance with the specified wiring method under the specified power supply voltage to prevent short circuits caused by error operation and damage the armrest box.

(3) Do not dismantle the armrest box without permission, so as not to cause the armrest box to work properly.

(4) Control panels are forbidden to touch at will.

(5) If the control panel is accidentally exposed to the liquid, wipe it with a dry towel in time to avoid liquid penetration, causing the circuit board to burn.

