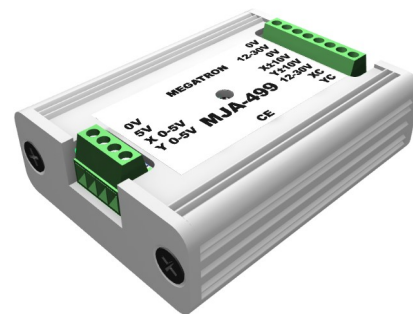


# MJA-499

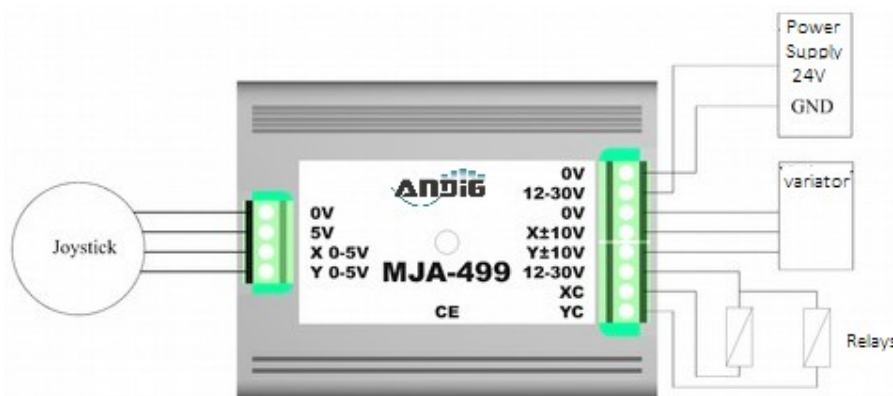
## -10~0~+10V CONVERTER

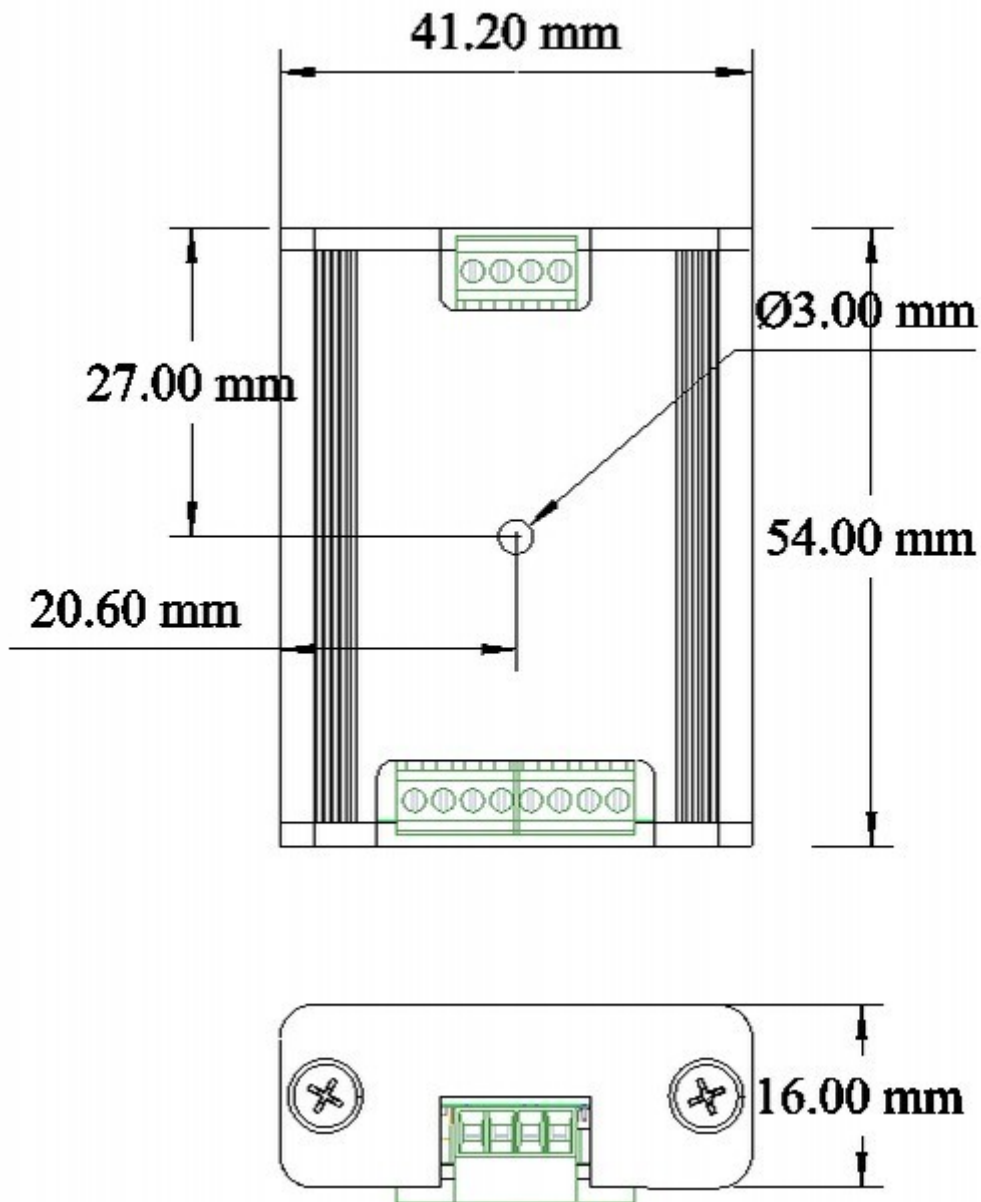
Hall-effect joysticks should generally be supplied with +5V and have a 0-5V output. Industrial applications often require 24V and a  $\pm 10V$  control voltage. The MJA-499 board achieves this conversion. It allows a 2 axes joystick to be supplied directly with a voltage between 12 and 30VDC with an output of  $\pm 10V$ . It also provides a center detection signal. The center detection output is an open collector transistor equipped with a 10k resistor on + : it allows to directly control a relay. The relay is active (signal = 0V) when the handle leaves the center.



- Power supply 24 → 5V
- Converter 5V →  $\pm 10V$
- Center detection
- 2 axes

Specifications	
Power supply	12-30 VDC
Voltage supplied to the joystick	5 V $\pm$ 1 %
Max current consumption supplied to the joystick	30 mA
Control voltage X Y	0-5 V
Output voltage X Y	-10 ~0~ +10V
Max output voltage for detection center	30 V
Max current per centre detection output	0.25 A
Amplitude of center detection	4 % of handle travel
Reverse polarity protection	Yes
Housing	Anodised aluminium
Dimensions	54x56x41 mm
Connection	Screw terminal block with 2.54 pitch





The 3mm diameter central hole is available for fixing by screw or nylon collar.