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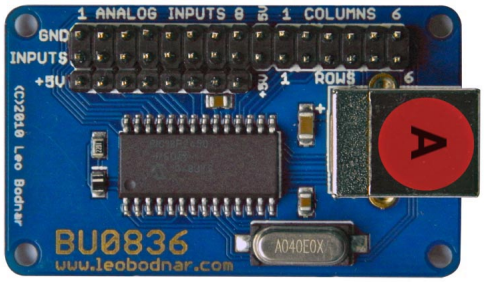
Bodnar 12-Bit Joystick Controller



Suitable for converting gameport devices to USB, retrofitting existing gaming devices or building your own.

Rating: Not Rated Yet
Price
Variant price modifier:

Base price with tax

Price with discount $40.96

Salesprice with discount

Sales price $40.96

Sales price without tax $40.96

Discount

Tax amount

Ask a question about this product

ManufacturerBodnar

Description

Product Information

Suitable for converting gameport devices to USB, retrofitting existing gaming devices or building your own.

Specifications

- 8 analog inputs with 12-bit (4096 steps) resolution each
- 32 buttons
- 8-way "point-of-view" hat switch
- Very compact - 2.2"x1.25" (55x32mm)
- Mounting Screw Hole Size - M2.5 or #3-56 - DO NOT ENLARGE THE MOUNTING HOLES

Features

- Fully self-contained interface
- Natively supported by Windows 8/ 7/Vista/XP/2000 32/64 bit and Mac OS X
  Forget drivers - just plug it in and it's ready to go
- Unique serial number helps Windows remember each device
  Ever unplugged a joystick and had Windows lose calibration settings? This controller retains settings even if plugged in a different USB port or if you use two and swap them over.
- Analog inputs filtering
  Digital processing removes noise from axes position reports while preserving extremely fast response.
- Powered from USB bus
- Full-speed 12Mb USB connection
- Compatible with any game that uses joystick - MS Flight Simulator, X-Plane, Driving Sim Games, etc
- Custom versions for OEMs
- Proudly designed and made in the UK

How to use

full 6x6 matrix

- connects to six ROWS and six COLUMNS pins on the controller
- - with diodes if there will be 3 or more contacts activated simultaneously, e.g. if you use ON/OFF switches
- - no diodes if buttons used only momentarily like most joysticks
- First 32 buttons are standard buttons
- Last 4 contacts make up 8-direction point-of-view hat (coolie) switch
- Literally any diodes can be used - 1N4148 or 1N4004 are good ones

Simplified Direct Connection to any GND pins

- Connect up to 12 buttons or switches
- No diodes are needed even with switches or toggle buttons
- No configuration needed to use either connection method
- Compatible with any game that uses joystick - MS Flight Simulator, X-Plane, Racing, etc
- Uses standard Windows gaming device calibration. If needed, curves and deadzones can be tweaked with DIView.
- Feel free to use two or more devices if 8 axes or 32 buttons is not enough
- Use other sensors with 0..+5v output, e.g. ratiometric magnetic Hall sensors. You may use spare +5V and Gnd pins to draw some power (up to 100mA)
- Eight 3-pin and one 12-pin connectors are included with each controller. Pin header has standard 0.1" (2.54mm) pitch
- Simple utility available to calibrate curves and deadzones.

Construction tips

What to do with unused inputs?
Unconnected buttons will appear as not pressed - just ignore them
Unused analog inputs are automatically disabled. They will appear as soon pots are connected and BU0836 is powered up. In other words, if they are not connected - you will not see them

Which pots are the best?
Any value from 1kOhm to 100kOhm will work fine. If you don't know where to start, get 10kOhm ones
Use linear pots (taper B.) Avoid non-linear, log pots with tapers A, D or Y used in audio level controls
Any pot would work but the best ones are industrial quality Spectrol (Vishay) and Bourns. They have life expectancy of few million shaft revolutions.

Good wiring helps. For ultimately clean signal use shielded wires and ground the pot's case if it's metal
Try to use as much of pot travel range as possible

Product Downloads:

BU0836 Configuration.exe:
http://www.leobodnar.com/products/BU0836/BU0836%20configuration.exe

DIView.exe:
http://www.leobodnar.com/products/BU0836/DIView.zip

Encoder Configuration Software:
http://www.leobodnar.com/products/BU0836/BU0836_encoders.exe

PCB Template in .dxf format:
http://www.leobodnar.com/products/BU0836A/BU0836-SMT-RevN.zip