



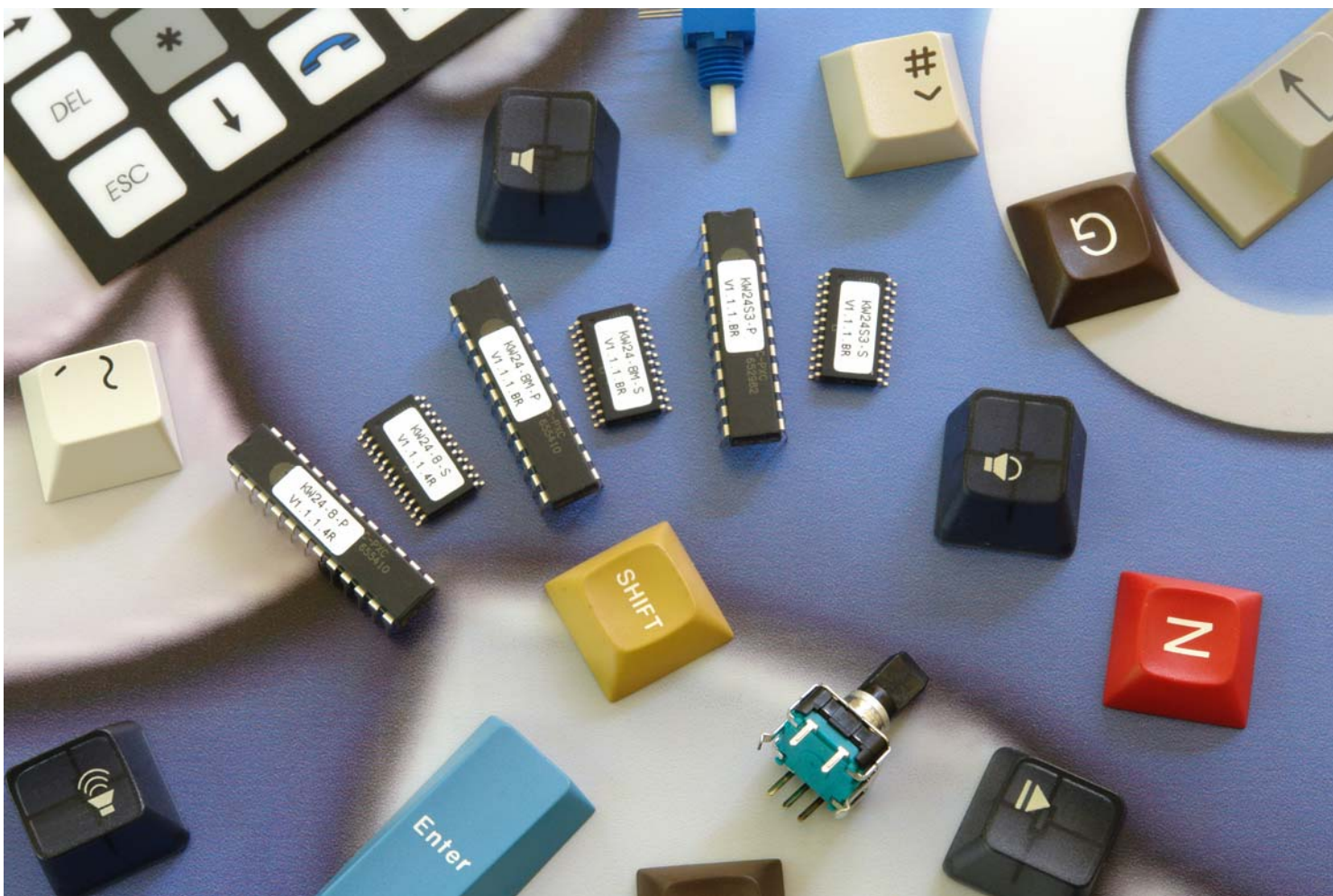
**Code Mercenaries** Hard- und Software GmbH

[www.codemerchs.com](http://www.codemerchs.com)

LED-Lighting • Keyboardcontroller • Mousecontroller • Joystickcontroller • I/O-Controller • rotary encoder controller

## Press Release

### Low End USB Keyboard Controller for up to 64 keys or three rotary encoders





## Press Release

Code Mercenaries ships KeyWarrior24, a low end USB keyboard controller family for industrial and special keyboard applications.

The KeyWarrior24 family complements the KeyWarrior keyboard controller family with low end solutions for small keyboard layouts and front panels with jog dials.

KeyWarrior24 are available as preprogrammed chips in DIL24 or SOIC24 package. Standard variants with fixed keyboard tables are available. Customer specific keyboard layouts are possible for production volumes.

KeyWarrior24-8 and KeyWarrior24-8M support a matrix of up to 64 keys in 8 x 8 arrangement. Caps, Num, and Scroll LEDs can be supported by adding a driver transistor for each LED. If no LEDs are required the external circuit consists of just one resistor and one capacitor.

KeyWarrior24S3 supports three rotary encoders and nine keys. The impulses of the encoders are turned into key strokes.

KeyWarrior24-8M and KeyWarrior24S3 support the most common Consumer Controls like Eject, Play/Pause, Volume Up/Down etc. This allows to control media players. For example with a KW24-S3 a rotary encoder can be used to control the audio volume.

Two FN keys for switching to a second and third key table are available. Customer specific chips can use up to 34 macros with up to 31 key codes each. The FN keys and macros can be assigned to any keys for custom chips.

The standard variants come with three fixed key tables supporting various applications.

KeyWarrior24 have a USB 1.1/2.0 compliant interface and are supported as generic keyboards by all standard operating systems.

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## Technical Data

### All KeyWarrior24:

- USB 1.1/2.0 interface
- Three keyboard levels, selected by two FN keys
- Standard variants with fixed program available
- Up to 34 macros with up to 31 key codes each
- Minimal external circuit: One resistor, one capacitor
- DIL24 or SOIC24 package

### KeyWarrior24-8

- 8 x 8 key matrix, up to 64 keys
- Optional LEDs for Caps, Num, Scroll
- Diodes in key matrix supported

### KeyWarrior24-8M

- 8 x 8 key matrix, up to 64 keys
- Supports key codes for Play, Eject, Vol +/- etc.
- Optional LEDs for Caps, Num, Scroll
- Diodes in key matrix supported

### KeyWarrior14-S3

- Inputs for three rotary encoders, impulses turned into keystrokes
- Nine keys
- Supports key codes for Play, Eject, Vol +/- etc.

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## About us and our products

Code Mercenaries is a supplier for the industrial input device and peripheral manufacturers since 1998.

The keyboard and combined keyboard/mouse controller family KeyWarrior, and the mouse controller family MouseWarrior serve as basis for a large number of industrial input devices. A small but vital customer base are the manufacturers of products for the disability market and other speciality input devices.

The joystick controller family JoyWarrior serves a broad range of customers from industrial machine/vision control, professional and semiprofessional simulator control, to hobby and model building. A good option for front panel design are the joystick/mouse hybrid controllers MW24J8 and MW24H8 which are switch selectable to work as a mouse or joystick allowing both cursor control and data input via a joystick.

JoyWarrior24F8 is a low cost three axis acceleration sensor. With its small size and simple connection via a USB interface it opens a lot of new application options. The MouseWarrior24F8 variant of this sensor is a mouse replacement that needs no surface for operation.

Applications for the IO-Warrior universal USB I/O controllers are very diverse. Basically only the number of pins and the data rate limits the use of IO-Warrior. It is used in laboratory setups, test equipment as well as in hobby projects or full scale device production either as the core of a device or "just" the interface to USB. IO-Warrior chips control robots and telescopes, do quality control on production lines, take measurements in labs, control switches and displays in front panels or simulator cockpits, or work as the USB interface in many kinds of products.

SpinWarrior is a family of rotary encoder controllers with USB interface. Various models allow from 3 to 6 encoders to be connected to the USB and are suitable for motion control, measurement, or human interfacing applications.

Our philosophy is to provide complete solutions that allow our customers to concentrate on their own strength in developing their end products. The necessary know-how for controlling interfaces like USB or PS/2 is encapsulated in our chips.

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