

Most of our USB scanners support two interface options:

- **USB-HID (Keyboard)**
- **USB Serial (Virtual COM Port)**

You can choose one mode depending on your needs.

The **L-250, P-250 and Q-250** are different—they are **USB composite devices**, meaning they function as both a **keyboard** and a **serial port** at the same time over a single USB connection.

#### What does that mean?

- **Keyboard Mode (HID):** The scanner sends barcode data as if you typed it—no drivers needed.
- **Serial Mode (VCP):** At the same time, it appears as a COM port for advanced communication with software or embedded systems.

#### Advantages of a composite interface:

1. **Two modes in one device:** Works with both basic and advanced systems.
2. **Flexible integration:** Easily switch modes using serial commands—no manual reconfiguration required.
3. **No extra hardware needed:** One device replaces both keyboard and serial-only scanners.
4. **Broad compatibility:** Supported on most operating systems without additional drivers.
5. **Easy setup:** Configurable through setup codes or software.
6. **Reliable performance:** Uses standard USB protocols (HID and CDC), ensuring stability.

#### Disadvantages of a composite interface:

1. **More complex enumeration:** The device appears as two USB interfaces, which can confuse some systems or require extra configuration.
2. **Compatibility issues on certain platforms:** Some embedded systems or older operating systems may not support USB composite devices properly.

**3. Increased system resource use:** Two interfaces require slightly more USB bandwidth and processing capacity.

**4. Software integration complexity:** Applications must correctly handle or select the intended interface; simultaneous use may not always be supported.

#### HID-only configuration available:

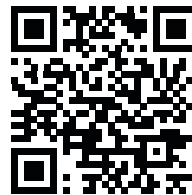
For systems that **do not support USB composite devices**, a **HID-only configuration** is available. In this mode, the scanner functions strictly as a keyboard input device, ensuring maximum compatibility with limited or older systems.

#### Summary:

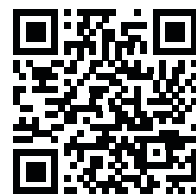
The L-250, P-250 and Q-250 offers flexible USB connectivity by combining HID and Serial modes in one device. For systems with limited USB support, a HID-only option ensures simple and reliable integration.

#### How to switch interface:

##### Switch interface to RS232



##### Switch interface to USB Serial (VCP)



##### Switch interface to USB-HID keyboard



##### Switch interface to USB-HID keyboard only (no composite interface)



You will find these codes in the OptiConfigure under section Interface>switch interface.