

Q: I attached an IO-Link solenoid to the IOL HAT, but on switching, the communication fails

Application Manual

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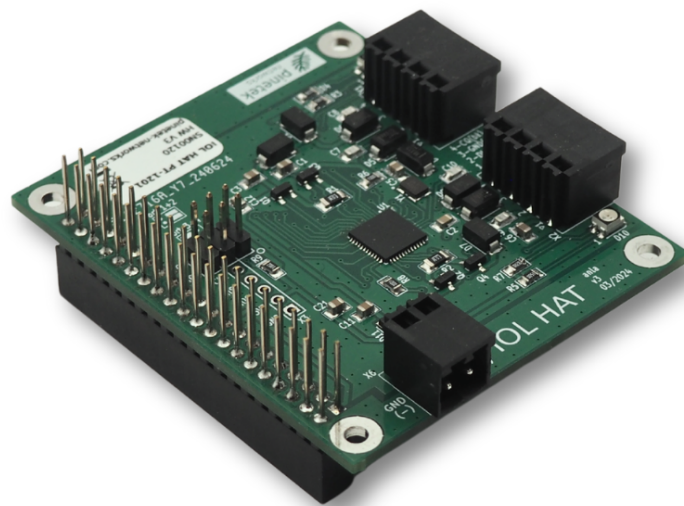


Table of Contents

<i>Q: I attached an IO-Link solenoid to the IOL HAT, but on switching, the communication fails</i>	5
<i>A: The solenoid is causing transients on L+</i>	5

Q: I attached an IO-Link solenoid to the IOL HAT, but on switching, the communication fails

Errors like this one appear before failure:

```
[16:37:36 ERROR] PL: Got status error, REG_Status=0x00
```

A: The solenoid is causing transients on L+

Some solenoids do not have a proper free-wheeling diode which causes spikes on L+.

To solve this, do these steps either singly or in combination:

- Use the parameter `-b` (e.g. `-b 2`) to increase the blanking time. This makes the error detection more tolerant to voltage surges.
- Connect a capacitor in parallel to L+ and GND (e.g. 10 μ F). This will buffer the spikes.
- If possible, connect a free-wheeling diode to the coil.