

The Yocto-Bridge is a precision ratiometric analog/digital converter to measure over USB the very weak voltage produced by a load cell, as used in weighing scales, or any other type of strain sensor, or other sensor with a Wheatstone bridge output.

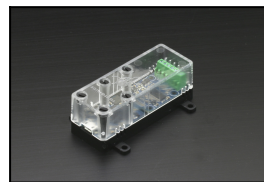
The measure is performed by a 32 bit A/D with built-in preamplifier and FIR filter, which allows for a sensitivity of a few nV/V. The device includes a built-in temperature sensor, which can be internal or external NTC, to cancel temperature drift inherent to load cells, both in offset and span. The Yocto-Bridge can also apply AC excitation to cancel thermocouple effects, and perform zero tracking for simple applications where the measured signal frequently comes back to zero.

This version includes a single ratiometric input. If you intend to build a weighing scale with four load cells, you can use the Yocto-MaxiBridge instead, which includes four ratiometric inputs.

### Specifications

|   |                                |
|---|--------------------------------|
| Product ID                                  | YWBRIDG1                       |
| USB connector                               | micro-B                        |
| Width                                       | 20 mm                          |
| Length                                      | 60 mm                          |
| Weight                                      | 7 g                            |
| Channels                                    | 1                              |
| Chipset                                     | Texas ADS1263                  |
| Refresh rate                                | 2 or 7 Hz                      |
| Accuracy (typ.)                             | 10 nV/V                        |
| Excitation voltage                          | 4.7 V AC/DC                    |
| IEC protection class                        | class III                      |
| Normal operating temperature                | 5...40 °C                      |
| Extended operating temperature <sup>‡</sup> | -30...85 °C                    |
| RoHS compliance                             | RoHS III (2011/65/UE+2015/863) |
| USB Vendor ID                               | 0x24E0                         |
| USB Device ID                               | 0x0076                         |
| Suggested enclosure                         | YoctoBox-Long-Thick-Black      |
| Harmonized tariff code                      | 8542.3190                      |
| Made in                                     | Switzerland                    |

<sup>‡</sup> The extended temperature range is defined based on components specifications and has been tested during a limited duration (1h). When using the device in harsh environments for a long period of time, we strongly advise to run extensive tests before going to production.



For more information: [www.yoctopuce.com/EN/products/yocto-bridge](http://www.yoctopuce.com/EN/products/yocto-bridge)