

# Device part number

PRO-SEQ002

# Device name

PromethION 2 Solo

# Short description

The PromethION 2 Solo is a small benchtop device designed to run up to two PromethION flow cells. Each flow cell is independently addressable, meaning that experiments can be run concurrently or individually. The PromethION 2 Solo plugs into a GridION Mk1 or user compute for real-time data streaming and analysis.

# Product overview

PromethION 2 Solo is a modular nanopore sequencing device using the same technology found in the MinION and GridION devices. It allows up to two sequencing experiments to be run concurrently or individually. PromethION 2 Solo also allows users to offer nanopore sequencing as a service.

The PromethION 2 Solo contains two sequencing ports where PromethION flow cells can be inserted. The device has no integrated compute, but can be plugged into a GridION Mk1 or a stand-alone computer that meets the minimum spec. This allows the device to basecall, in real-time, the data generated by two flow cells. The current chemistry and software enables generation of up to 290 Gbases\* of data from a single PromethION flow cell (\*theoretical max output based on sequencing at 420 bps for 72 hours).

The device has a USB Type-C port for connecting to external compute (e.g. a GridION device) - as such, setting up a PromethION 2 Solo requires no facility upgrades.



# Technical specifications

Component	Specification
Size and weight	152 x 110 x 87 mm, 1.5 kg
Installation ports	1x USB Type-C (3.0 at 5 Gbps) 1x 12 VDC barrel power connector
Software installed	P2 Solo device driver
Compute specification	N/A
Environmental conditions	Designed to sequence at +18°C to +25°C*

\*Functional range of electronics +5°C to +40°C

## Shipping and logistics

The Oxford Nanopore Technologies PromethION 2 Solo device is stored and shipped at ambient temperature (15–25°C).

**Please note that the PromethION 2 Solo is shipped separately to the kits and flow cells.**

## IT requirements

[PromethION 2 Solo IT requirements](#)

# Safety and legal information

## Intended use of the PromethION 2 Solo device

Oxford Nanopore Technologies® PromethION 2 Solo device is an electronic analysis system for use in scientific research. The core technology is built around a nanopore that is able to detect single molecule events including nucleic acids (DNA/RNA), proteins and small molecules.

**This product is for research use only**

The safety information below provides you with the details needed to install and use the system safely.

## Electrical information

Mains supply voltage	100-240 VAC (50/60 Hz)
Maximum rated current	1.8 A
Peak power consumption	60 W

## Emergency procedures

In case of emergency, switch the PromethION 2 Solo off at the power switch and unplug the power cables from the back of the device.

## Declaration of conformity

The PromethION 2 Solo conforms to the EMC and Electrical Safety directives as outlined in the EC Declaration of Conformity.

## CE DECLARATION OF CONFORMITY

(1) Product

Model name(s): PromethION 2 Sequencing Unit Solo

Model part number(s): PRO-SEQ002/ ONT-00-00233-00

Equipment type: Laboratory Equipment

(2) Manufacturer

Name: Oxford Nanopore Technologies plc

Address: Gosling Building, Edmund Halley Road,  
Oxford Science Park, Oxford,  
OX4 4DQ  
United Kingdom

(3) We, Oxford Nanopore Technologies plc, hereby declare under our sole responsibility that the above specified products conform to the following European Directives and applied harmonised standards:

**EMC** 2014/30/EU Electromagnetic Compatibility

**LVD** 2014/35/EU Low Voltage Directive

**RoHS** 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronic equipment. Amended by 2015/863

(4) Harmonised standards applied:

**EMC** EN 61326-1:2013

**LVD** EN 61010-1:2010+A1:2019

**RoHS** EN IEC 63000:2018

(5) Signed for and on behalf of Oxford Nanopore Technologies plc.

Signature:



Date: 28 Nov 2022

Full Name:

Rajeev Uppal

Position:

Director, Quality Assurance

Place of Issue:

Oxford, UK

## License and Warranty

The license and warranty contract ensures your instrument is performing optimally by providing the latest up-to-date hardware and software. The contract guarantees that Oxford Nanopore Technologies support obligations are delivered during the contract period as laid out in sections 4 and 7 of the [Nanopore Product Terms and Conditions](#).

For more information, see the [Device Warranty](#) page on the Oxford Nanopore Store.

## What's in the box

The PromethION 2 Solo is shipped together with the necessary cables and Configuration Test Cells to confirm your hardware is functioning as expected.

Configuration is the process of testing that communication between the PromethION 2 Solo device and the control software is operational prior to experimental work being performed. This is carried out in the absence of any chemistry and uses a specific flow cell known as the Configuration Test Cell (CTC).

The PromethION 2 Solo is packed into a box that contains everything needed for installing the device. The shipping weight is ~2 kg, meaning no special equipment is required for installing the device in your laboratory.

## Product cross-compatibility

### Flow cells

- FLO-PRO114M
- FLO-PRO004RA
- FLO-PRO002

### Kits

FLO-PRO114M flow cells are suitable for V14 Sequencing kits:

- Ligation Sequencing Kit V14 (SQK-LSK114)
- Ligation Sequencing Kit XL V14 (SQK-LSK114-XL)
- Ultra-Long DNA Sequencing Kit V14 (SQK-ULK114)
- Multiplex Ligation Sequencing Kit XL V14 (SQK-MLK114.96-XL)
- Rapid Sequencing Kit V14 (SQK-RAD114)
- Rapid Barcoding Kit 24 V14 (SQK-RBK114.24)
- Rapid Barcoding Kit 96 V14 (SQK-RBK114.96)
- Rapid PCR Barcoding Kit 24 V14 (SQK-RPB114.24)
- Native Barcoding Kit 24 V14 (SQK-NBD114.24)
- Native Barcoding Kit 96 V14 (SQK-NBD114.96)
- 16S Barcoding Kit 24 V14 (SQK-16S114.24)
- cDNA-PCR Sequencing Kit V14 (SQK-PCS114)
- cDNA-PCR Barcoding Kit V14 (SQK-PCB114.24)

FLO-PRO004RA flow cells are suitable for the Direct RNA Sequencing Kit:

- Direct RNA Sequencing Kit (SQK-RNA004)

FLO-PRO002 flow cells are suitable for:

- Ligation Sequencing Kit (SQK-LSK110)
- Ligation Sequencing Kit (SQK-LSK109)
- PCR-cDNA Sequencing Kit (SQK-PCS111)
- PCR-cDNA Sequencing Kit (SQK-PCS109)
- PCR-cDNA Barcoding Kit (SQK-PCB109)
- Direct cDNA Sequencing Kit (SQK-DCS109)
- Direct RNA Sequencing Kit (SQK-RNA002)

### Software

Basecalling:

- MinKNOW
- Dorado

Downstream analysis:

- EPI2ME
- Oxford Nanopore-developed tools and pipelines
- Customer-developed tools and pipelines

## Change log

Date	Version	Changes made
24th April 2024	V4	<ul style="list-style-type: none"><li>- In "Technical specifications", updated the environmental conditions to "Designed to sequence at +18°C to +25°C"</li><li>- Added a Declaration of Conformity</li><li>- Updated the License and Warranty information</li><li>- Updated product cross-compatibility</li></ul>
20th February 2024	V3	<ul style="list-style-type: none"><li>- In "Electrical information", the mains supply voltage has been updated to 100-240 VAC (50/60 Hz); rated current has been removed; and maximum rated power has been changed to peak power consumption</li><li>- In "Product cross-compatibility", the Guppy compatibility has been replaced with Dorado</li></ul>
12th December 2022	V2	<ul style="list-style-type: none"><li>- The theoretical maximum output has been updated to say "theoretical max output based on sequencing at 420 bps for 72 hours"</li><li>- Updated PromethION Flow Cell compatibilities with recently-released V14 kits</li></ul>
21st September 2022	V1	Initial document publication