



MUX8-R2™

多路复用器



Compatible with
PalmSens3, (Multi)PalmSens4, EmStat3 Blue and
EmStat4X LR and HR

➤ See for more information:
www.palmsens.net

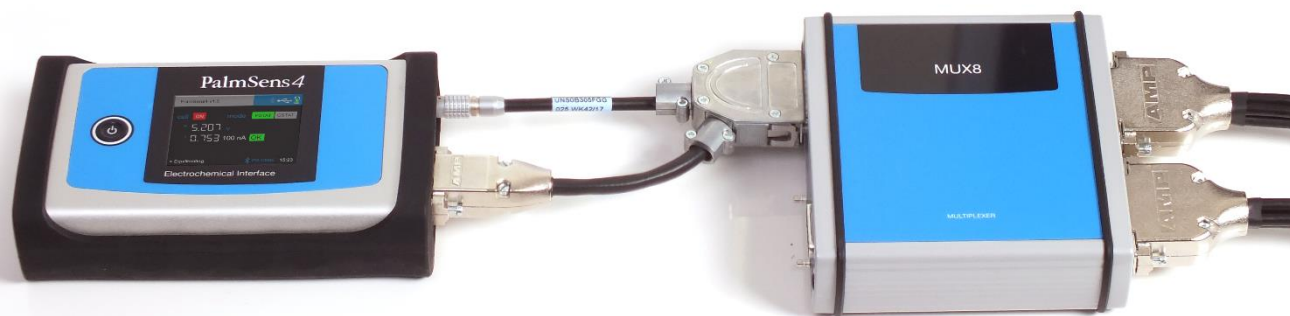
Contents

设备描述.....	3
最多叠加至128通道.....	3
配置.....	4
连接器.....	4
体系连接选择.....	5
复用器切换模式.....	6
规格.....	7
功能图.....	7
尺寸.....	8
软件说明.....	8
MUX8-R2 支持EmStat.....	9

➤ See for more information:
www.palmsens.net

Description

MUX8-R2支持连接PalmSens3, PalmSens4, EmStat3 Blue, EmStat4X或者MultiPalmSens4中的任意通道。单个复用器可实现在多达8个电化学体系中自动切换测试来提升效率且每个体系都有独立的WE、CE、RE。



Stacking up to 128 channels

每个多路复用器都有一个链路连接器，可用于连接到另一个MUX8-R2多路复用器，从而扩展通道数量，最多可以连接16个多路复用器，最高多达128个通道。PSTrace软件会自动检测多路复用器数量，并在用户界面中显示可用的通道数量。



磁性支脚便于堆叠。

Configurations

MUX8-R2多路复用器设计用于多达128个通道，带有2或3电极传感器或电池。多路复用器可以与不同的电极或传感器配置一起使用：

1. 八个单独的电池或传感器，每个电池或传感器都有一个工作/感应、参考和对电极。
2. 八个单独的电池或传感器，每个电池或传感器都有一个工作/感应以及并联的参考电极和对电极。
3. 具有八个工作/感应电极的电池或传感器阵列，共享一个参考电极和一个对电极。
4. 具有八个工作/感应电极的电池或传感器阵列，共享一个并联的参考/对电极。

在所有配置中，电池都可以多路复用，使未选择的工作电极处于开路状态（单独浮动）或处于接地。当在配置3和4中，未选择的通道切换到地时，它们将具有工作电极的电势。这是因为WE始终处于地电位。您可以在我们的PSTrace软件或安卓版PStouch应用程序的测量设置中轻松更改MUX8-R2的硬件配置。

MUX8-R2 Settings

- Connect Sense to WE
- Combine RE and CE
- Use Common RE and CE on Channel 1

Unselected WE

- Disconnect WE (floating)
- Switch WE to GND

The hardware configuration can be set in our software.

Connectors

MUX8-R2 具有以下连接功能

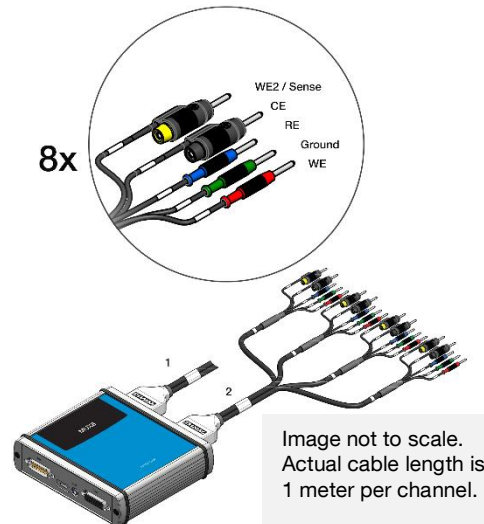
Connector	Function
Input	Y型电缆连接到恒电位仪传感器连接器和（数字）AUX。
AUX	可用于测量温度或pH值等辅助输入，以及切换外部硬件使用两条数字控制线。
Link	连接到下一个多路复用器的输入端。
USB-C	用于在连接两个以上多路复用器的情况下提供额外电源。
Channel 1-4	Connects to WE, Sense, WE2, RE and CE of channels 1-4.
Channel 5-8	Connects to WE, Sense, WE2, RE and CE of channels 5-8.

Cell Connection Options

Option A (default):

The channels are divided in two sets of four sensor cables joined with a D-Sub connector.

Order code: [CBL-MUX08R2-SNS-5S]



Option B:

The cable here shown at the right can be used in case the multiplexer needs to be connected to a fixed setup by means of soldering or screw-terminals.

Order code: [CBL-MUX08R2-HD]



Option C:

You can also connect one or two screw-terminals directly in the multiplexer.

Order code: [MUX08R2-ST]



Option D:

The SPE adapter for our MUX8-R2 multiplexer allows you to connect 8x Screen Printed Electrodes (SPE's). The pitch of the SPE connector is 2.54 mm and compatible with the most popular brands of SPE's.

Order code: [MUX08R2-SPE]



Supported Switching Modes

在顺序模式下，在下次测量开始之前设置每个通道。在交替模式下，在每个间隔时间内快速扫描通道，在所选通道上进行虚拟同时测量。

Voltammetric techniques	Sequential	Alternating
▪ Linear Sweep Voltammetry	✓	-
▪ Cyclic Voltammetry	✓	-
▪ Fast Cyclic Voltammetry	✓	-
▪ AC Voltammetry	✓	-
▪ Differential Pulse Voltammetry	✓	-
Pulsed techniques:		
▪ Square Wave Voltammetry	✓	-
▪ Normal Pulse Voltammetry	✓	-
▪ Stripping Chronopotentiometry	✓	-
Amperometric techniques		
▪ Chronoamperometry	✓	✓
▪ Zero Resistance Amperometry	✓	✓
▪ Multistep Amperometry	✓	-
▪ Fast Amperometry	✓	-
▪ Pulsed Amperometric Detection	✓	-
▪ Multiple-Pulse Amperometric Detection	✓	-
Galvanostatic techniques		
▪ Linear Sweep Potentiometry	✓	-
▪ Chronopotentiometry	✓	✓
▪ Multistep Potentiometry	✓	-
▪ Open Circuit Potentiometry	✓	✓
▪ Stripping Chronopotentiometry	✓	-
Other		
▪ Mixed Mode	✓	-
▪ Impedance Spectroscopy (EIS/GEIS)	✓	-

Specifications

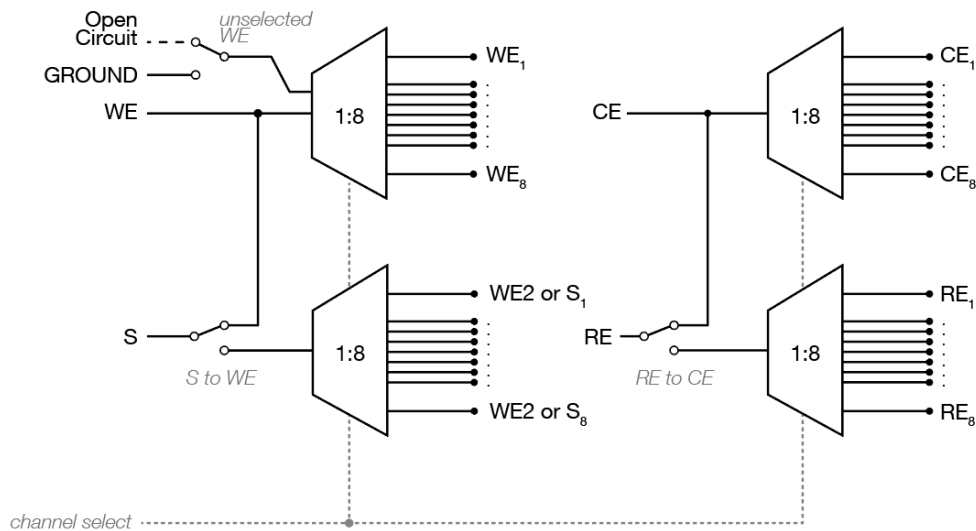
System specifications

▪ number of channels	8 (up to 128 channels when daisy chained)
▪ multiplexer	switches 8 x [WE, WE2 or Sense, RE, CE]
▪ on resistance for WE	1.5 ohm typical
▪ charge injection for WE	20 pC typical
▪ leakage current	< 55 pA (20 pA typical) at 25 °C
▪ switching time	2 ms
▪ compliance voltage	±10 V
▪ maximum current	70 mA (when used with EmStat3+ Blue or EmStat4X HR)

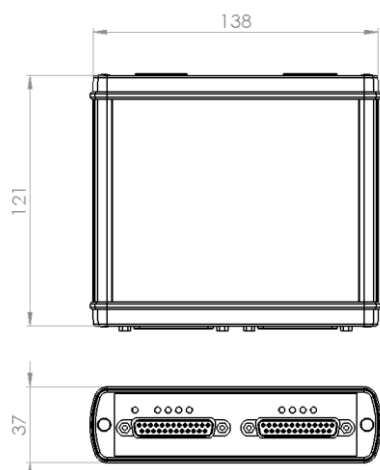
Limitations for Electrochemical Impedance Spectroscopy (EIS)

▪ max. frequency for EIS	100 kHz when switching WE/S, RE and CE 1 MHz when switching WE/S and RE+CE combined (2 electrodes configuration)
--------------------------	--

Functional Diagram



Dimensions



Dimensions in mm

Software Support



The MUX8-R2 is supported by PStouch and MultiTrace for Windows and the PStouch app for Android.



MUX8-R2 with Integrated Potentiostat

EmStat MUX8-R2™

The MUX8-R2 multiplexer is also available with integrated EmStat3 or EmStat4 potentiostat. This very compact combination allows for a high productivity with a small footprint.



➤ See for more information:

www.palmsens.net



➤ See for more information:

www.palmsens.net

请随时联系PalmSens了解更多详情:

ys18896551311@outlook.com

www.palmsens.net

杨工

TEL:18896551311

无锡新戈诺科技有限公司

DISCLAIMER

Changes in specifications and typing errors reserved. Every effort has been made to ensure the accuracy of this document. However, no rights can be claimed by the contents of this document.