

Description

The P3CS (Precision Configurable Constant Current Source) is a compact current source with two individually configurable output channels to provide electrical components with a precision current. The current can be configured in a range from 1 μA to 20 mA to deal with low power sensors. The small and compact design makes it transportable and comfortable for a wide range of applications.

To adjust the desired current output, it comes with a user software interface based on the *National Instruments* platform. This makes it suitable for own LabVIEW Applications.



Figure 1: P3CS Device

Device Specifications

Property	Min	Typ.	Max	Unit
Input Power Supply	5.8	6.0	6.1	V
Number of Output Channels		2		-
Output Range	0,001		20	mA
Resolution		1		μA
Offset Error			< 10	μA
Output Voltage	20 (@ 20 mA)		24 (@1 mA)	V
Working Parallel Connected		yes		-
Save Configured Current		separately for each channel		-
Temperature Range	-20	25	80	$^{\circ}\text{C}$
Body Size (l x b x h)		123 x 71 x 30		mm^3
Case Material		ABS (Acrylonitrile Butadiene Styrene)		-

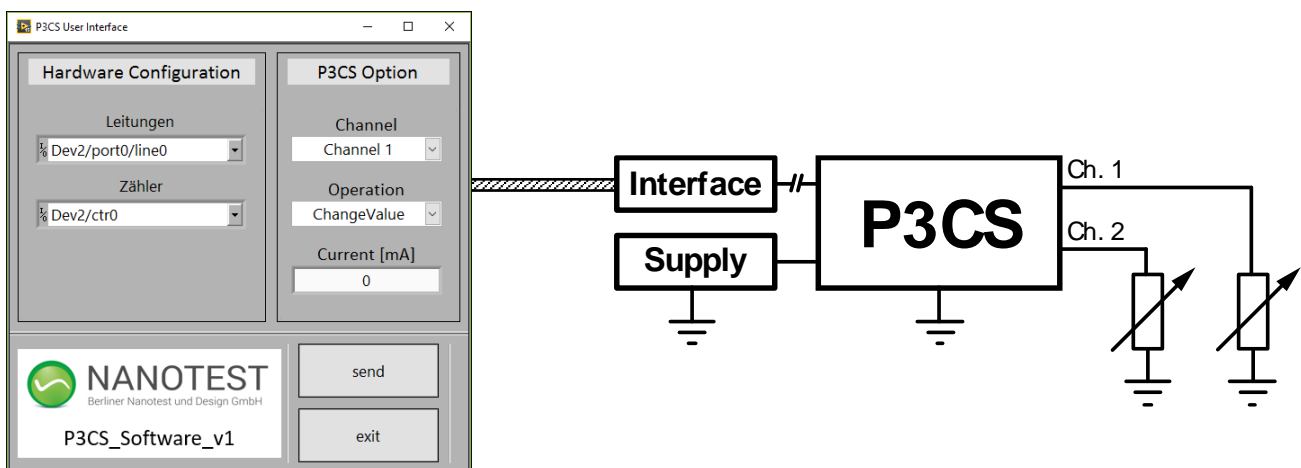


Figure 2: P3CS Standard Setup Diagram

Applications Remarks

The P3CS is a tool for measurement and characterization purposes. It is designed for high reliability in terms of measurement accuracy and precision. To ensure optimal results the use of twisted cables as well as a low-noise power supply unit is recommended.

As of now the configuration of the P3CS is performed in combination with a National Instruments hardware interface which requires a PC, Mac or Linux System with LabVIEW Runtime Engine 15.0 or later.

A universal programming interface is under development.