



WPVS reference cell

Selection guide and price list for indoor reference cells

Application	Type of cell	Filtering	Order-number	Price (€) incl. calibration
Monocrystalline Si (IR-ext, p.a. PERC)	WPVS (N-type A+)	HOQ (0.3–1.2µm)	510311302.00	3,868.00
Monocrystalline Si	WPVS (N-type A)	HOQ (0.3–1.2µm)	510311102.00	3,589.00
Polycrystalline Si	WPVS (N-type B)	HOQ (0.3– 1.15µm)	510311202.00	2,955.00
Thin-film	WPVS (P-type C)	KG2 (0.3 –0.95µm)	510310309.00	2,877.00
Thin-film	WPVS (P-type C)	KG3 (0.3–0.9µm)	510310303.00	2,877.00
Thin-film	WPVS (P-type C)	KG5 (0.3–0.85µm)	510310304.00	2,877.00
Thin-film	WPVS (P-type C)	BG38 (0.3–0.75µm)	510310305.00	2,877.00
Thin-film	WPVS (P-type C)	BG40 (0.3–0.7µm)	510310306.00	2,877.00
Thin-film	WPVS (N-type A)	OG590 (0.58–1.2µm)	510311107.00	3,589.00
Thin-film	WPVS (N-type A)	RG695 (0.69–1.2µm)	510311108.00	3,589.00

Two LEMO plug connectors for the assembly of customer's cables included.



Outdoor reference cell

Selection guide and price list for outdoor reference cells

Application	Type of cell	Filtering	Order number	Price (€) incl. calibration
Monocrystalline Si (IR-ext., p.a. PERC)	N-type A+	HOQ (0.3–1.2 μ m)	511311302.00	3,210.00
Monocrystalline Si	N-type A	HOQ (0.3–1.2 μ m)	511311102.00	2,939.00
Polycrystalline Si	N-type B	HOQ (0.3–1.15 μ m)	511311202.00	2,482.00
Thin-film	P-type C	KG3 (0.3–0.9 μ m)	511310303.00	2,422.00
Thin-film	P-type C	KG5 (0.3–0.85 μ m)	511310304.00	2,422.00

Plug connector with 2m cable included.

Cable (8-pole) with connector for outdoor reference cells

Length	Order number	Surcharge (€)
5m	916725108.00	35.00
10m	916728108.00	63.00

Remark:

The above-mentioned cell/filter combinations are a convenient decision guidance for the choice of reference cells. In addition to that you have the possibility to download the spectral sensitivity curves and respective data for evaluation from the download section of our homepage. With a compatible "spectral Mismatch" program you will be able to determine the reference cell's mismatch factor before the actual purchase takes place. For further questions or orders please contact referencecells@callab.de



**Current to voltage
converter**



**Voltage
signal amplifier**

Price list for current to voltage converter and signal amplifier

Device	Type	Application	Order number	Price (€)
Reference cell current-voltage converter	TIV-ID01	Signal conditioning of indoor reference cells	032011200.00	836.00
Reference cell signal (pre)amplifier	VV-OD01	Voltage signal conditioning of outdoor reference cells <i>with</i> integrated shunt resistor	032011100.00	780.00

Remark: The stated prices include a Fraunhofer ISE proprietary calibration. DAkKS calibration is available at an extra charge of 150.00 € (as at Sept. 2017).

The above-mentioned devices are used to connect our reference cells to existing data acquisition systems. With the current-voltage converter it is possible to operate a WPVS reference cell at I_{sc} and measure a DC voltage that is equivalent to the short-circuit current in continuous light measurements. The preamplifier is used to condition the output voltage of outdoor reference cells to the lower input sensitivity of a given data acquisition system.

For further questions or orders please contact referencecells@callab.de.