

The solar module SUSE 5.1

Universal and powerful solar module with test jacks
Especially suited for student-centered experimental classes in ISCED level 3



The **solar module SUSE 5.1** contains a high-quality solar cell SUSEmod2 with $V_{oc} = 0.61$ V and $I_{sc} = 0.90$ A, capsuled and laminated, as well as two 4 mm test jacks red/black for measuring the voltage or current.

The robust device on a transparent plexiglass base plate with 8 mm stand rod is ideally suited for classes and projects in schools in ISCED level 3.

The module can be fixed on the optical bench SUSE 5.0alu or on any common optical bench in schools.

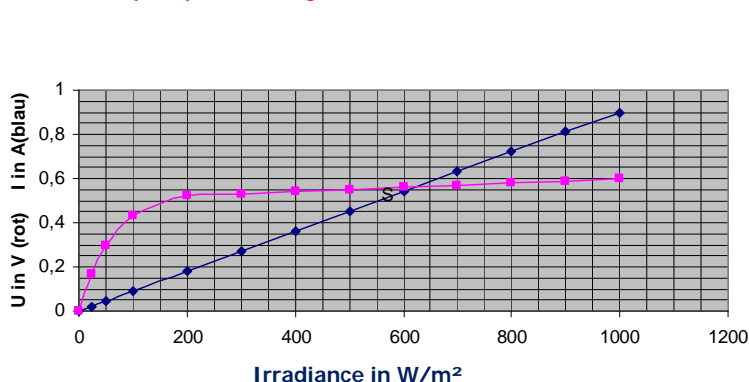
With the extensive experimentation manual multiple experiments on photovoltaics and solar radiation can be conducted.

Technical data:

Dimensions: Solar cell 52 x 52 mm
Module 80 x 60 mm
Plexiglass base plate 155 x 80 mm

Electrical data with a light irradiation (irradiance S) of $S = 1000$ W/m², $T = 25^\circ\text{C}$ and AM 1.5:
Open circuit voltage: $V_{oc} = 610$ mV
Short-circuit current: $I_{sc} = 900$ mA

Characteristic curves V(S) and I(S) SUSE solar cell 52-2011
pink: open circuit voltage in V blue: short-circuit current in A



The open circuit voltage (exp. Function!) is 0 in total darkness, increases strongly with low irradiances and then increases just slightly up to the maximum value of 0.6 V with 1000 W/m² (bright sunshine with blue sky, solar cell adjusted towards the sun).

The short- circuit current is a linear function through the origin and increases in a linear fashion from 0 in total darkness up to 0.9 A with 1000 W/m².