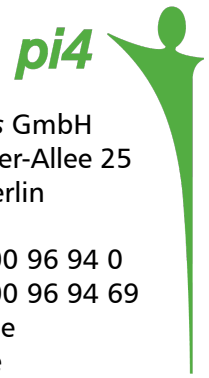


EL-Module Inspection Pi4_EL Panelvision

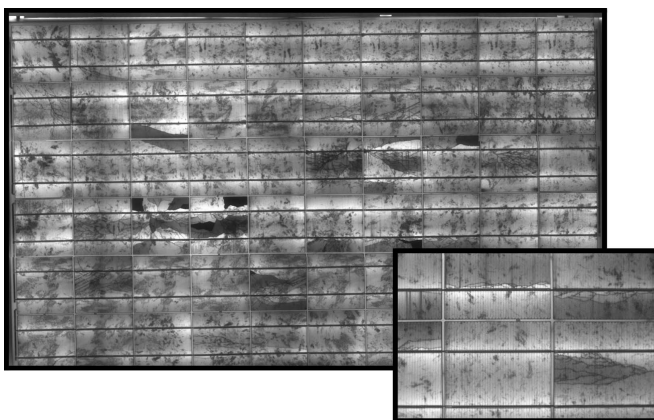


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pi4_EL Panelvision in-line inspection system for PV modules

is designed for installation in production lines and for inspection of sample pv panels beside the line. Thanks to its small footprint and flexible conveyor length pi4_panelvision inserts very easy in any conveyor line. No special alignment of the panels is required. The pv panel, pre or after lamination, is loaded by automatic conveyors. After automated contacting via contact boxes the el image of the complete panel will be acquired by two special NIR sensitive moving cameras.



By visual inspection defects like cracks, grid finger breakage, dark spots or solder errors may be easily detected.

The information about the defects detected may be stored to a data base together with the images.

System Features:

In-line or Stand alone
panels are loading automatically with the integrated conveyors, stand alone conveyors available

Flexible usage
before or after lamination, for pre-laminated panels or framed modules with junction box

Conveyor distance to floor
from 890 mm to 1,010 mm

Panel Size and loading
up to 1,050 mm x 2,000 mm, long side leading

High Image Resolution
400 μm / pixel

Short cycle time
60s or 45s available incl. loading and unloading

Small Footprint
2,300 x 1,900 x 1,250 mm

Pi4_EL Panelvision Technical Specification

Material	Cell dimension	5 & 6 inch
	Module Type	Multi/mono/thin film
	Module dimension	1,050 - 2,000 mm
	Module orientation	Long side leading
System	Automation/ Loading	InLine / Stand Alone Automatic
	Cycle time	60 / 45 s
	Typical throughput	75 MW / 100 MW
	Loading height	890 - 1010 mm
	Conveyor speed	150 - 250 mm/s
	Line integration	pre or post lamination
Software	Computer	Industrial standard PC with Windows 7
	Monitor	30 " LCD
	Data storage	Database
Electro Luminescence	defect detection	Display
	Image resolution	400 μ m / pixel
	Camera type	two special pi4 NIR, cooled
	Camera resolution	1.4 Mpixel
	Typical exposure time	350 – 500 ms
	Lense	Special NIR Lense
Utilities	Power supply (phase/voltage/frequency)	1 / 230 V / 50 Hz
	Max. current	16 A
	Pneumatic	6 bar
	Weight	500 kg
	Footprint	2300 x 1900 x 1250 mm