Technical Data

PRÜFTECHNIK Schneider & Koch

LaserVision 6

System Version

High Speed Standalone-System, LV6/HS
equipped with color sensor module with GigE Vision technology, telecentric lenses, drawer with adapter for PCBs as well as a lighting unit consisting of 5 independently programmable modules (Top + 4 sides)

High Speed Inline-System, LV6/HI
Equipment version as LV6/HS but with transport system with PCB clamping and support

System Components, Hardware

Image processing computer
| 19" Rack PC with Microsoft Windows operating system
| Matrox image processing card
| LCD-Monitor

XY-positioning unit
| Working area
Standard configuration HI (over 2 stop positions): 550 x 356 mm
Standard configuration HS: 350 x 340 mm
Enlarged area (Optional): on request

Cameras

Resolution	Sensor/Pixel	Field of vision/mm	Component size
55,3 µm (THT)	920 x 720	50,90 x 39,80	THT up to 65 mm hight
15,7 µm (SMD)	2200 x 1730 (4M)	34,50 x 27,20	pitch 0.4 0402
8,6 µm (FINE)	2448 x 2050 (4M)	21,10 x 17,60	pitch 0.3 01005

Option: Angled-view module
Four lateral cameras in addition to the main camera are integrated into the lighting

Option: Height measurement by laser triangulation
| Laser: safty class 2; red 675 nm
| Working area: 0...70 mm accuracy ± 0,2 mm
(Accuracy depending on test surface reflection)

Pass through height
| Above: 65 mm
| Below: 55 mm

Inspection speed
| Depending on board design and configuration:
Typ. 180.000 components/

General Data

Power supply	230V / 3A o. 110V / 6A
Certificat	CE (EU-standarts, machine-directives incl. EMC etc.)
Dimensions in mm (H x W x D)	1550 x 1000 x 1040
Weight (Stand-alone/Inline)	ca. 240 kg/270 kg
Operating temperature	10°C bis 35°C
Operating humidity	‹ 80 %, none-condensing
Inline-System	
Compressed air	4 bar
Assembly line height	840 mm +/- 25 mm 890 mm +/- 25 mm 940 mm +/- 25 mm (other heights possible)

Communication with assemblyline using SMEMA

Software

Standard routines for image processing
| Component angel 0-360° supported
| Presence and polarity verification on all THT and SMD components
| Measurement of component position (offset, angle)
| Solder joint inspection on SMD and THT components
| Solder joint inspection on ICs, including THT
| Short-circuit tests (solder bridges)
| Solder paste inspection (2-D)
| Initial sample test

Standard routines for laser height-measurement
| Height difference measurement to measure presence and height of components
| Height profile measurement in a specific region
| Coplanarity measurement

Production tools, documentation
| Automatic storage of test results
| Barcodes readable with camera
| User definable result messages
| CAD data conversion tool, license for LVCAD
| Fault Statistic, yield-meter, SPC (LVStat)
| Graphical repair station, (LVRepair)
| Graphical board view, (LVBoard)
| Communication with production equipment via various interfaces
| OCV-Software (Optical Character Verification) for recognition of laser engraved characters on components and reading labels

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