



# SK assembly

Complex assemblies? No problem anymore with Smart Klaus

## Smart Klaus for manual assembly

Instruction

Checking

Error reporting

Easy teach-in

Smart Klaus guides the worker on the screen, checks the individual assembly steps and warns in case of assembly errors.

## Your advantages at a glance

- Quality inspection parallel to assembly
- Digital tutorial with real-time feedback
- More assemblies in less time
- Error-free mounting: 0ppm are possible!
- Reliable documentation of test results
- Increase productivity

## Mounting and testing in one operation

With the Smart Klaus, you can now mount without errors, relaxed and safely. All work instructions and test criteria are stored digitally so that Smart Klaus guides your workers through the process step by step. In parallel, the camera compares the stored inspection criteria with the live image. After each assembly step, the assistance system automatically acknowledges and gives feedback to the worker in real time. If required, the assembly assistance system documents all inspection results including an assembly photo.

This way, no more mistakes are made in your production!

## Functions

- Easy teach-in of new or modified assembly instructions
- Step-by-step instruction of the worker on the screen
- Optical inspection of each individual assembly step
- Automatic switching on after successful execution of an assembly step
- Error message in case of faulty or forgotten assembly steps

## Extensions

- Integration of digital assembly tools
- Marking of points to be mounted by laser
- Automatic documentation
- Interface to the company IT for seamless integration into your production control



## Technical data

### Dimensions

|                  |                |
|------------------|----------------|
| Lighting         | 1.200 x 800 mm |
| Working distance | 1.200 mm       |

### Camera

|            |                                     |
|------------|-------------------------------------|
| Resolution | 4912 x 3684 pixels, 18,1 megapixels |
| Framerate  | 21 fps                              |

### Field of view and detection accuracy

The field of view of the camera and the detection accuracy depend on the focal length of the used lens. Experience values are given for the detection accuracy at which Schlaue Klaus functions reliably in typical industrial environments. Under optimum ambient conditions, the process-safe detection accuracy improves by a factor of about 7.

|                      |                |                |                |                  |
|----------------------|----------------|----------------|----------------|------------------|
| focal length         | 16 mm          | 12 mm          | 8,5 mm         | 3,5 mm           |
| Field of view        | 340 x 250 mm   | 700 x 500 mm   | 1.000 x 750 mm | 2.200 x 1.600 mm |
| Recognition accuracy | approx. 0,5 mm | approx. 1,0 mm | approx. 2,0 mm | approx. 4,5 mm   |

### Lighting

|                                 |                      |
|---------------------------------|----------------------|
| Power consumption               | 70 W                 |
| Luminous flux                   | approx. 7.000 Lumen  |
| Illuminance on the work surface | approx. 2.500 Lux    |
| Light colour                    | 6.000 K (cold white) |

### Image processing computer

|  |   |
|--|---|
| Powder-coated industrial computer                      |   |
| Processor  | Intel i7-8700, 3,7 GHz, 6 cores, 12 threads |
| RAM  | 8 GB  |
| Hard disk  | 2 x 240 GB, configured as RAID 1            |
| Operating system                                       | Windows 10 IoT Enterprise                   |
| 2 integrated Gigabit network adapters                  |   |
| 4 switched cold appliance outputs (total max. 1,000 W) |   |

## Touch Monitor

|                  |  |
|------------------|--|
| Screen diagonal  | 21.5 inch                                  |
| Resolution       | 1.920 x 1.080 pixels                       |
| Touch technology | Projected capacitive, 10-point Multi-Touch |

### Optimum datamanagement solutions GmbH

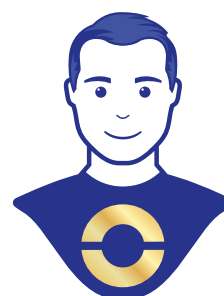
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**Smart Klaus**