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PCB handling systems

SMART CSR

Loader single magazine

**STANDARD FEATURES**
- Electrical expeller for automatic PCB insertion in line
- Selectable pitch
- Easy width adjustment
- Start, reset push-button and alarm light
- Airless

**PCB dimensions**
- PCB length: 100–450 mm
- PCB width: 85–330 mm
- Thickness: 0.8 to 2.6 mm
- Above board max height: 40 mm
- Below board max height: 20 mm
- Transport edge width: SMEMA 3 mm

**Magazine handling**
- Buffer capacity: 1 magazine
- Maximum load: 30 kg
- PCB step height: 10, 20, 30, 40 mm
- Max magazine dimensions: 460×400×563 mm
- Max nr. PCB per magazine: 50

**PCB handling**
- PCB transport system: -
- Width adjustment: -
- Length of conveyor sections: -
- Transport height: SMEMA 950±25 mm
- PCB flow direction: SMEMA left to right reverse flow optional
- Cycle time: < 9 seconds
- Air pressure: -

**Electrical**
- Control type: PLC
- Interface type: SMEMA (other types optional)
- HMI: Control panel with push-buttons, switches and light indicator
- Voltage: 230 V single phase, 50 Hz
- Max power: 165 W

**Dimensions**
- Height (with magazine): 1065 mm (1550 mm)
- Length (with magazine): 990 mm (1090 mm)
- Width: 660 mm
- Weight: 50/98 kg
- Structure: Self-standing steel bodywork
- Transparent material: Polycarbonate
Unloader single magazine

STANDARD FEATURES
- Electrical pusher for automatic PCB insertion into magazine
- Selectable pitch
- Easy width adjustment
- Start, reset push-button and alarm light
- Airless

PCB dimensions
- PCB length: 100–450 mm
- PCB width: 85–330 mm
- Thickness: 0,8 to 2,6 mm
- Above board max height: 40 mm
- Below board max height: 20 mm
- Transport edge width: SMEMA 3 mm

Magazine handling
- Buffer capacity: 1 magazine
- Maximum load: 30 kg
- PCB step height: 10, 20, 30, 40 mm
- Max magazine dimensions: 460×400×563 mm
- Max nr. PCB per magazine: 50

PCB handling
- PCB transport system: Antistatic dissipative flat belt
- Width adjustment: Manual
- Length of conveyor sections: 600 mm
- Transport height: SMEMA 950±25 mm
- PCB flow direction: SMEMA left to right reverse flow optional
- Cycle time: < 9 seconds
- Air pressure: -

Electrical
- Control type: PLC
- Interface type: SMEMA (other types optional)
- HMI: Control panel with push-buttons, switches and light indicator
- Voltage: 230 V single phase, 50 Hz
- Max power: 165 W

Dimensions
- Height (with magazine): 1065 mm (1550 mm)
- Length (with magazine): 990mm (1090 mm)
- Width: 660 mm
- Weight: 50/98 kg
- Structure: Self-standing steel bodywork
- Transparent material: Polycarbonate
PCB handling systems

SMART DSK

PCB Destacker

STANDARD FEATURES

- Destacking blade system
- Sensorized PCB presence
- Manual width adjusting system
- Pass-through

PCB dimensions

- PCB length: 100–450 mm
- PCB width: 85–330 mm
- Thickness: 0.8 to 2.6 mm
- Above board max height: 40 mm
- Below board max height: 20 mm
- Transport edge width: SMEMA 3 mm

Stack handling

- Max height PCB stack: 200 mm
- Max weight PCB stack: 15 kg

PCB handling

- PCB transport system: Antistatic dissipative flat belt
- Width adjustment: Manual
- Length of conveyor sections: 600 mm
- Transport height: SMEMA 950±25 mm
- PCB flow direction: SMEMA left to right reverse flow optional
- Cycle time: < 9 seconds
- Air pressure: 0.6 MPa

Electrical

- Control type: PLC
- Interface type: SMEMA (other types optional)
- HMI: Control panel with push-buttons, switches and light indicator
- Voltage: 230 V single phase, 50 Hz
- Max power: 165 W

Dimensions

- Height (with magazine): 1160 mm
- Length (with magazine): 600 mm
- Width: 660 mm
- Weight: 50/98 kg
- Structure: Self-standing steel bodywork
- Transparent material: Polycarbonate
PCB handling systems

SMART STK

PCB Stacker

STANDARD FEATURES

- Adjustable PCB stacking system
- Short PCB cycle time
- Sensorized PCB presence
- Pass-through

PCB dimensions

- PCB length: 100–400 mm
- PCB width: 80–330 mm
- Thickness: 0.8 to 2.6 mm
- Above board max height: 40 mm
- Below board max height: 20 mm
- Transport edge width: SMEMA 3 mm

Stack handling

- Max height PCB stack: 200 mm
- Max weight PCB stack: 15 kg

PCB handling

- PCB transport system: Antistatic dissipative flat belt
  - Width adjustment: Manual
  - Length of conveyor sections: 600 mm
  - Transport height: SMEMA 950±25 mm
  - PCB flow direction: SMEMA left to right reverse flow optional
- Cycle time: < 9 seconds
- Air pressure: 0.6 MPa

Electrical

- Control type: PLC
- Interface type: SMEMA (other types optional)
- HMI: Control panel with push-buttons, switches and light indicator
- Voltage: 230 V single phase, 50 Hz
- Max power: 165 W

Dimensions

- Height (with magazine): 1160 mm
- Length (with magazine): 600 mm
- Width: 660 mm
- Weight: 50/98 kg
- Structure: Self-standing steel bodywork
- Transparent material: Polycarbonate
## PCB handling systems

### SMART CIV1

### Conveyors

#### STANDARD FEATURES
- Selectable inspection/pass-through
- Visual inspection on/off
- Easy width adjustment
- PCB releasing button
- Sensorized PCB presence
- Oven infeed/outfeed (optional)

#### PCB dimensions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB length</td>
<td>100–450 mm</td>
</tr>
<tr>
<td>PCB width</td>
<td>85–330 mm</td>
</tr>
<tr>
<td>Thickness</td>
<td>0,8 to 2,6 mm</td>
</tr>
<tr>
<td>Above board max height</td>
<td>40 mm</td>
</tr>
<tr>
<td>Below board max height</td>
<td>20 mm</td>
</tr>
<tr>
<td>Transport edge width</td>
<td>SMEMA 3 mm</td>
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</table>

#### PCB handling

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB transport system</td>
<td>Anticostatic dissipative flat belt</td>
</tr>
<tr>
<td>Width adjustment</td>
<td>Manual</td>
</tr>
<tr>
<td>Length of conveyor sections</td>
<td>600 mm</td>
</tr>
<tr>
<td>Transport height</td>
<td>SMEMA 950±25 mm</td>
</tr>
<tr>
<td>PCB flow direction</td>
<td>SMEMA left to right, reverse flow optional</td>
</tr>
<tr>
<td>Cycle time</td>
<td>&lt; 9 seconds</td>
</tr>
<tr>
<td>Air pressure</td>
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#### Electrical

<table>
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<tr>
<th>Parameter</th>
<th>Specification</th>
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<tr>
<td>Control type</td>
<td>PLC</td>
</tr>
<tr>
<td>Interface type</td>
<td>SMEMA (other types optional)</td>
</tr>
<tr>
<td>HMI</td>
<td>SMEMA</td>
</tr>
<tr>
<td>Voltage</td>
<td>230 V single phase, 50 Hz</td>
</tr>
<tr>
<td>Max power</td>
<td>165 W</td>
</tr>
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</table>

#### Dimensions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>1065 mm</td>
</tr>
<tr>
<td>Length</td>
<td>600 mm</td>
</tr>
<tr>
<td>Width</td>
<td>660 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>50/98 kg</td>
</tr>
<tr>
<td>Structure</td>
<td>Self-standing steel bodywork</td>
</tr>
<tr>
<td>Transparent material</td>
<td>Polycarbonate</td>
</tr>
</tbody>
</table>
### PCB handling systems

**SMART LIFO**

### Buffer LIFO

**STANDARD FEATURES**
- Mode selector: Loader/LIFO/unloader
- Electrical pusher for automatic PCB insertion into magazine
- Electrical expeller for automatic PCB insertion in line
- Selectable pitch
- Easy width adjustment
- Start, reset push-button and alarm light

#### PCB dimensions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCB length</td>
<td>100–450 mm</td>
</tr>
<tr>
<td>PCB width</td>
<td>85–330 mm</td>
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<tr>
<td>Thickness</td>
<td>0,8 to 2,6 mm</td>
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<td>Above board max height</td>
<td>40 mm</td>
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<tr>
<td>Below board max height</td>
<td>20 mm</td>
</tr>
<tr>
<td>Transport edge width</td>
<td>SMEMA 3 mm</td>
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</table>

#### Magazine handling

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Buffer capacity</td>
<td>1 magazine</td>
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<tr>
<td>Maximum load</td>
<td>30 kg</td>
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<td>PCB step height</td>
<td>10, 20, 30, 40 mm</td>
</tr>
<tr>
<td>Max magazine dimensions</td>
<td>460×400×563 mm</td>
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<tr>
<td>Max no. PCB per magazine</td>
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#### PCB handling

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>PCB transport system</td>
<td>Antistatic flat belt or push</td>
</tr>
<tr>
<td>Width adjustment</td>
<td>Manual</td>
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<tr>
<td>Length of conveyor sections</td>
<td>600 mm</td>
</tr>
<tr>
<td>Transport height</td>
<td>SMEMA 950±25 mm</td>
</tr>
<tr>
<td>PCB flow direction</td>
<td>SMEMA left to right reverse flow optional</td>
</tr>
<tr>
<td>Cycle time</td>
<td>&lt; 9 seconds</td>
</tr>
<tr>
<td>Air pressure</td>
<td>0,6 MPa</td>
</tr>
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</table>

#### Electrical

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
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<tbody>
<tr>
<td>Control type</td>
<td>PLC</td>
</tr>
<tr>
<td>Interface type</td>
<td>SMEMA (other types optional)</td>
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<tr>
<td>HMI</td>
<td>Control panel with push-buttons, switches and light indicator</td>
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<tr>
<td>Voltage</td>
<td>230 V single phase, 50 Hz</td>
</tr>
<tr>
<td>Max power</td>
<td>165 W</td>
</tr>
</tbody>
</table>

#### Dimensions

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height (with magazine)</td>
<td>1065 mm (1550 mm)</td>
</tr>
<tr>
<td>Length (with magazine)</td>
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<tr>
<td>Width</td>
<td>660 mm</td>
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<tr>
<td>Weight</td>
<td>50/98 kg</td>
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<tr>
<td>Structure</td>
<td>Self-standing steel bodywork</td>
</tr>
<tr>
<td>Transparent material</td>
<td>Polycarbonate</td>
</tr>
</tbody>
</table>
PCB handling systems

SMART AOI

Test server

STANDARD FEATURES

- Electrical pusher for PCB insertion into magazine
- Electrical expeller for automatic PCB insertion in line
- Extended SMEMA interface
- Good/bad sorting

PCB Dimensions

- Thickness: 0.8 to 2.6 mm
- Above board max height: 40 mm
- Below board max height: 20 mm
- Transport edge width: SMEMA 3 mm

Magazine handling

- Buffer capacity: 1-2 magazines
- Maximum load: 30 kg
- PCB step height: 10, 20, 30, 40 mm
- Max magazine dimensions: 460 x 400 x 563 mm (LxWxH)
- Max nr. PCB per magazine: 50

PCB handling

- PCB transport system: Antistatic flat belt
- Width adjustment: Manual
- Length of conveyor sections: 600 mm
- Transport height: SMEMA 950±25 mm
- PCB flow direction: SMEMA left to right reverse flow optional
- Cycle time: < 9 seconds

Electrical

- Control type: PLC
- Interface type: SMEMA (other types optional)
- HMI: Control panel with push-buttons, switches and light indicator
- Voltage: 230 V single phase, 50 Hz
- Max power: 165 W

Dimensions

- Width: 660 mm
- Weight: 50/98 kg
- Structure: Self-standing steel bodywork
- Transparent material: Polycarbonate

Detailed features

<table>
<thead>
<tr>
<th>Detailed features</th>
<th>AOI</th>
<th>AOIL</th>
<th>AOIS</th>
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<tr>
<td>PCB length mm</td>
<td>100–450</td>
<td>100–450</td>
<td>100–450</td>
<td>100–450</td>
</tr>
<tr>
<td>Height (with magazine)</td>
<td>1065 (1550) mm</td>
<td>1065 (1550) mm</td>
<td>1065 (1550) mm</td>
<td>1065 (1550) mm</td>
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<tr>
<td>Length (with magazine)</td>
<td>1690 mm</td>
<td>2180 mm</td>
<td>2180 mm</td>
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<td>Air pressure</td>
<td>-</td>
<td>0,6 MPa</td>
<td>0,6 MPa</td>
<td>-</td>
</tr>
</tbody>
</table>
SMART AOI

**Test AOI server (stand alone)**
Automatic PCB loading into AOI system with post – test and automatic unloading in the original magazine slot.

**Test sorter (end of line)**
Automatic PCB sorting according to the AOI testing results with selective unloading of PCBs into good or bad magazine.

**Test sorter stand alone (pass-back)**
Automatic loading of each PCB on the AOI, automatic sorting of PCBs according to the AOI testing result and unloading of PCBs in different magazines (good/bad).

**Test sorter stand alone (pass-through)**
Automatic PCB loading into AOI system with automatic sorting of PCBs according to the AOI testing results and selective unloading or feeding.