

# BJB Advances LED Luminaire Assembly with SMD-P2F

**Solderable fixing elements for LED boards - engineered for luminaire manufacturers that aim to optimize assembly and maximize the rationalization potential in their production processes. The SMD-P2F isn't just an alternative to conventional screw fixing of LED boards, it's an evolutionary step.**

LED boards can be installed into luminaire housings in a variety of ways. And it's often an overlooked step in the luminaire assembly process, until something goes wrong due to faulty installation of course. The question of how best to implement this assembly process in technical terms also has considerable impact on the upstream and downstream processes - especially when taking warranty costs into consideration. With its solderable SMD-P2F fixing elements, BJB has developed a solution which makes the entire assembly process easier, faster and more cost-efficient for the entire value chain. A major advantage is that these fixing elements do not have to be attached as separate components, because they are already pre-installed to the PCB itself. The components are attached to the LED board during the standard SMT assembly process (pick-and-place and reflow soldering).

PCBs which are equipped with SMD-P2F fixing elements in this way can be installed in the luminaire housing in a single step. During final assembly of the luminaire, the LED board is ready for snap-in attachment and can be securely fixed by simply clicking it into the fixture housing eliminating error-prone screw assembly for lighting manufacturers. Installation can be performed either manually or automatically using BJB automation systems - and, of course, completely without screws, rivets, tape or glue.

"Our assembly solution for LED boards simplifies the automation process as well as manual assembly", BJB's engineers guarantee. "Through the pre-installation of the flexible spring clips and with the aid of a solder pad, the PCB is perfectly prepared for final assembly. It is then simply clicked into the housing." BJB will demonstrate how quick, easy and reliable this process is with a newly developed system at Light + Building 2018 in Frankfurt.

That is not all, however. In addition to their trouble-free integration in automation processes, the SMD-P2F fixing elements from BJB have other positive characteristics. The high-strength, flexible springs remain mobile, but are attached to the PCB at the designated points by means of a solder pad. Once the PCB has been snapped into the luminaire housing, the clips provide an interlocking, vibration- and shock-resistant connection. The robust strength of the fixing elements maintain constant pressure and mechanical fixation of the LED board throughout the lifetime of use. And they are removable in case the LED boards need to be replaced.

The low overall height of the SMD-P2F above the PCB also reduces unwanted shadowing, which have an adverse effect on light output and design quality. All in all, the SMD-P2F elements from BJB are an ideal method of fixing PCBs and are suitable for all types of assembly. What is particularly impressive, however, is their rationalization potential in the field of automated luminaire production.

## **The solution for accelerating luminaire assembly processes**

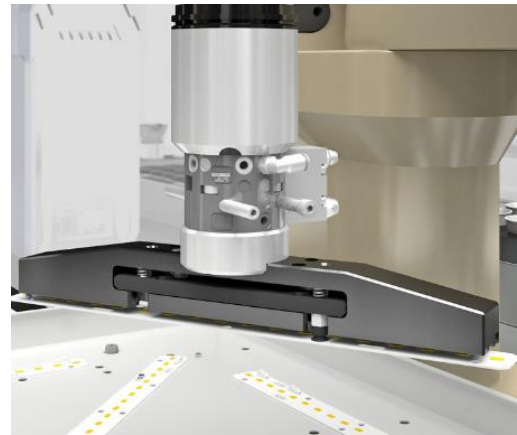
In modern luminaire production, as in all automation processes, every second of every minute counts. Short cycle times with maximum process reliability are therefore essential to an efficient production operation. When using the SMD-P2F fixing elements from BJB, an entire assembly step is eliminated by integrating it into the prefabrication process for the PCB. Because LED boards can now be installed without screws or separate elements which have to be attached additionally during final assembly, cost and assembly complexity to the lighting manufacturer are reduced helping to maximize the overall production efficiency. All this saves time and money without compromising quality and reliability.

BJB's SMD-P2F fixing element for LED printed circuit boards is the industry's first solderable mechanical fixation device. Suitable for LED boards in linear and panel type luminaires, the SMD-P2F fixing elements from BJB cover spans of 1.5 to 2.6 mm (overall package thicknesses of the PCB and fixture housing panel). The parts are supplied in the usual SMT form

of tape and reel. For automatic SMD assembly, an appropriate footprint has to be provided on the PCB as well as a cut-out of 4.5mm. In each case, a cut-out with a diameter of 3.0 mm is required in the housing panel.

#### **Automation Features using SMD-P2F:**

- ESD-protected system for LED processing
- Compact design, easy to operate
- Simplified assembly process
- Perfectly designed for use with components from the BJB///OEM-Line
- Easy changeover to new processes and fixture designs
- Can be combined with other automation technology
- Faster and more efficient production
- Greater accuracy and production quality



*Automatic LED Board Installation using the SMD-P2F from BJB*

**BJB will feature the SMD-P2F and their automation solutions for luminaire production at the upcoming Light + Building trade fair in Frankfurt, Germany at Hall 4.0, Stand B12**

Download the SMD-P2F product brochure [here](#) or visit [www.bjb.com](http://www.bjb.com) for more information.

To request samples or to speak with a qualified BJB lighting professional contact us via the information below.

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#### **About BJB:**

BJB is a world-renowned, lighting technology solution provider with a longstanding reputation for quality and German engineering. Since 1867, BJB has been a leader in the lighting industry and now pioneers solid-state lighting technology world-wide. BJB manufactures a comprehensive range of LED lighting solutions for components, optics and automation to meet the needs of today's lighting OEMs. We're proud to celebrate over 150 years of growth, innovation and leadership in lighting!

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