



JAE



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Whitepaper

Factory Automation, SPE and Miniaturization

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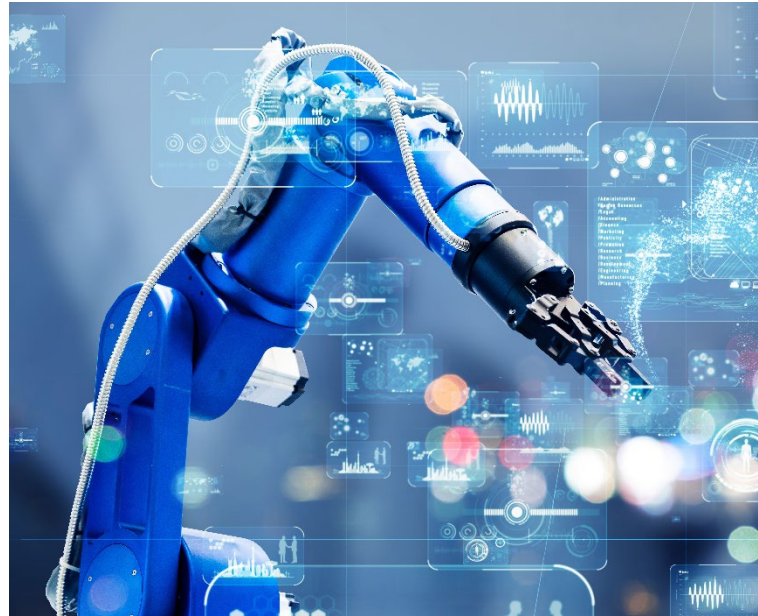
Technology to Inspire Innovation



Factory Automation, SPE and Miniaturization

JAE has a long history in providing high quality connectors for the factory-automation industry, and is now perfectly positioned to serve the growing Industry 4.0 as well.

Image: 5G is increasing its importance in factory automation.



The worldwide demand for small, compact connectivity is growing, not only due to the move towards miniaturisation, but also due to the need for efficiency and cost improvements. With newer connectors now offering better mechanical performance and less cable pairs, factory automation experts can fulfil the increasing needs of digitalisation on the factory floor.

Smart Factories have a large amount of interconnected devices, and JAE connectors ensure efficient distribution of power, signal and data around them. Predictive maintenance is also more important

than ever. Another growing segment for plant management is machine vision. Machine vision is the use of cameras as sensors, and is widely enabled by



JAE's connectivity. Cameras offer a low-cost and reliable route to monitoring broad areas of a manufacturing site's operation. From security,

through to the monitoring of the completion of production cycles, cameras are a flexible sensor with many applications that complement and enhance the data derived from 'traditional' IoT sensors.

Lastly, AGVs – or Autonomous Guided Vehicles, are increasingly common in modern manufacturing settings, and can be used to automate a number of tasks that involve moving items from one location to another. In the case of replenishment of machines and workstations, this is usually to support JIT – or Just In Time - manufacturing models. JAE connectors are used comprehensively here, too.

In fact, JAE connectors are used in all the key areas of Factory Automation. From devices such as motors, through to sensors, to the PLCs, JAE provides compact connectors which have a high specification. JAE has been developing connectors for the industrial environment for many years, distributing them in all major international territories.

The devices installed on a Smart Factory floors contain lots of complex connections, for which JAE has developed a wide range of Factory Automation connectors to be used within each module.

For example, with the connectors on AGVs and Machine Vision modules, it is necessary to have a low weight and robust solution, to increase the efficiency of the devices and reduce overall costs. There is also the need for miniaturisation because of the limited space and increased number of components within the same footprint. JAE has developed a full range of high-quality industrial interfaces to meet those requirements.

Miniaturization of all components, including connectors, will be important, as will reducing the number of cables on the factory floor, whilst simplifying the serviceability of systems will also be key. JAE has a big range of top-quality connectivity solutions that meet those needs perfectly.

In everything we do at JAE, we strive to facilitate and accelerate the path to a more interconnected future, by offering innovative, compact and high-speed solutions.

The Smart Factory is a very progressive and innovate development, and is on a very rapid growth curve. JAE will continue to be at the heart of it.



About JAE

As a globally recognized supplier of electronic connectors, JAE Europe Limited (subsidiary of Japan Aviation Electronics Industries, Ltd (JAE)) designs, manufactures and markets superior electronic connectors and aerospace products to a variety of industries. With the philosophy “Explore, Create, and Practice”, the company continues to lead the way in providing innovative solutions to an increasingly demanding industry. By combining divergent technologies from experience gained in the aerospace and automotive industries, JAE has been able to transfer these technologies into advanced connector designs with the most demanding applications in the industry. Our parent company, Japan Aviation Electronics Industries, Ltd. (JAE), is a globally oriented supplier of electronic components, fibre optic connectors, LCD monitor connectors, waterproof electrical connectors and other digital systems. Wholly owned by Japan Aviation Electronics Industries, Ltd., Tokyo, Japan (JAE), JAE Europe Limited was established on 1996. Solutions for a Wide Variety of Industries: At JAE, we offer a wide selection of connector and sensor solutions for a variety of different industry applications.



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Levon Altunyan is Product and Marketing Manager at JAE Europe. Within his field of expertise, Levon is responsible for the industrial connector sector and product development in JAE Europe.

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