

### Modern Factory Floors with Automation

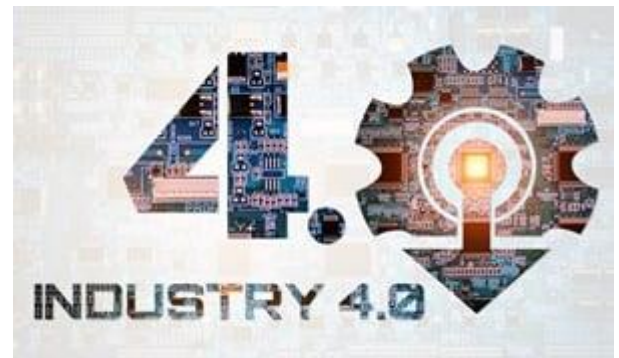


With the advent of [Industry 4.0](#), factory floors are undergoing revolution. From high performing industrial computers and smart robotics to reliable machine-to-machine communication, factory automation systems are deployed at various levels, which simplifies complex manufacturing processes and provide accelerated production with enhanced precision. In present day competitive world, automation helps in achieving enhanced output with reduced costs.

This will also lead to increased consistency in terms of quality, along with reduced wastage, improved productivity, and a safer working environment, especially in hazardous industries.

Factory automation can vary from partially manual process supported with automated machines, to automated assemblies and production lines. Today, we even have factories with end-to-end automation.

Amphenol has always set standards in bringing innovative solutions to meet the fast growing demands of various industries. We have made it a point to bring in cutting edge solutions that support various equipment that enable [Industry 4.0](#). Our range of connectors and cable assemblies are rugged, reliable, durable and feature some of the most advanced features like sealing, ingress protection, and electromagnetic shielding demanded by the harsh factory environments.



There are many components and devices that constitute to the smooth functioning of factory automation.



[Programmable Logic Controllers](#) and [Servo Drives](#) can be considered as the backbone of factory automation. While PLCs support machine-to-machine communication based on pre-defined programs, servo drives serve as the powerhouses of servomechanism. Amphenol's advanced connectors and cable solutions add to the efficiency of the sensors and device controls within the system.

Rugged industrial PCs are yet another device that adds into the functioning of modern-day smart factories. They have an array of processing, memory, storage, and peripheral components, which work together in making smooth functioning of other related devices. Amphenol provides a comprehensive range of I/O, PCB, storage, server, and power solutions alongside custom solutions for various applications from basic single computing boards to advanced [Industrial Embedded Servers](#).



With more advancement in automation techniques, robots are gaining momentum in meeting the next levels of intelligence. While [robotic arms](#) are considered as the fundamental equipment in factory automation, today there are independent robots or “cobots” capable of cohabiting or completely replacing human involvement with next generation AI vision. Amphenol’s I/O connector with PoE (Power over Ethernet), PoDL (Power over Data Line), and Gigabit Ethernet is capable of providing reliable support to such advanced robotic applications.



Whether it be PLCs, Industrial Computers or Robots, the automations can be easily monitored by factory personnel through advanced Human Machine Interface (HMI) displays. These touch-screen displays are empaneled into the equipment cabinets through which the processes can be controlled with the press of a finger. Amphenol’s offering extend to these devices through [miniature-pitch FFC/FPC](#) and [board-to-board connectors](#) that connect the displays to the logic boards.

Check out [Amphenol’s advanced connectors](#) that support high end equipment that make factory automation a reality.