

# ERNI HIGH-SPEED CONNECTORS ARE THE KEY TO INDUSTRIAL AUTOMATION APPLICATIONS

## Initial Situation

Our client is a scientific research and design institute of high-tech fields and advanced energy development industrial system in the defense sector in China. To control and operate the industrial processes in large process plants throughout the system, a distributed control systems (DCS) are used to increase safety, cost effectiveness and reliability.

For confidentiality reasons, we are unable to disclose our Client's name in this success story.



## Requirements

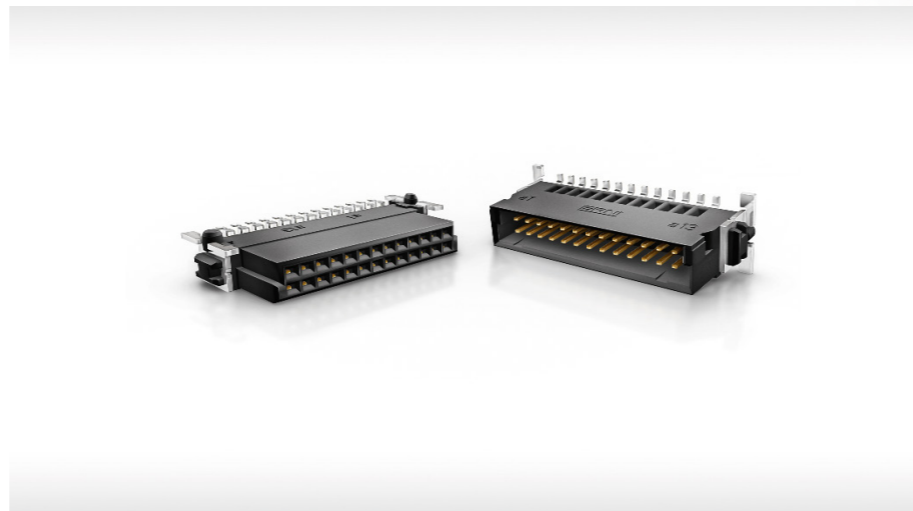
A DCS allows machines to exchange information reliably by supporting as the primary interconnect function within a system interface to cope with ever increasing demands on mechanical and electrical requirements even under extreme conditions.

Besides needing a board-to-board miniature connector to fit into the tightly spaced DCS, high signal integrity is critical for data to be transmitted without disruption at a faster rate in a defense application.

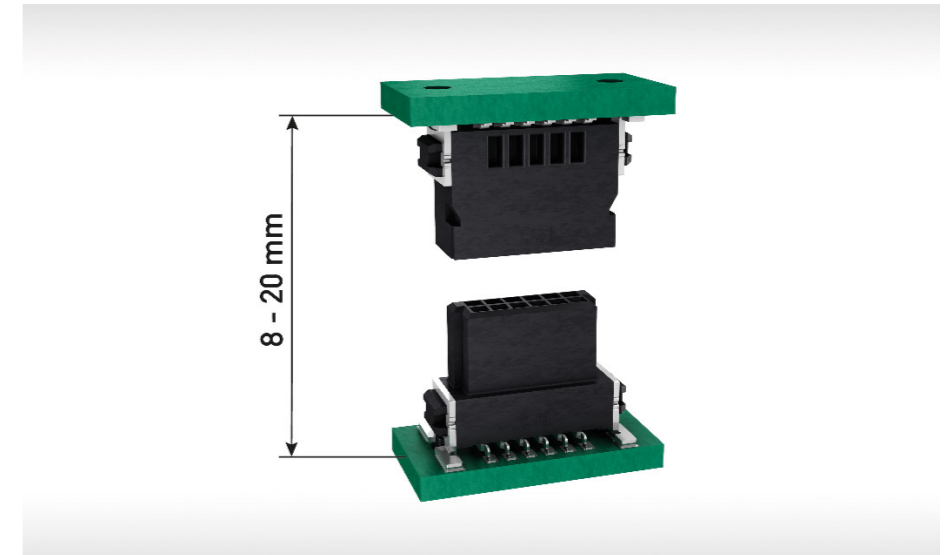
## Our Solution

With its high-speed capabilities up to 3 Gbit/s, the ERNI SMC is the ideal solution for distributed control systems. The SMC connector is the most versatile dual row interconnector system available in a 1.27mm pitch. It has an ultra-reliable dual beam female contact design and achieves up to 500 mating cycles. The SMC connector features SMT board level anchors to minimize stress on the signal contacts while maximizing board retention. With its polarization feature, the SMC ensures the right mating conditions. It provides an impressive misalignment tolerance of +/-0.7mm and allows a high angular inclination tolerance, making this connector system easy to handle and ultra-reliably.

The connector withstands high shock and vibration forces for a safe application in a rough environment. It also withstands a temperature of -55°C up to 125°C in its final use.



## Additional Features of the SMC



A cost-effective permanent cable assembly option is offered by using only one connector for a board-to-cable solution. The SMC is available as a press fit solution and incorporates all ERNI's leading press fit experience and technology.

The SMC connectors offer ideal solutions everywhere small grid and high performance are required. The outstanding signal integrity and a relatively high current rating include an enormous variety of application possibilities.

Browse our SMC connectors at [www.erni.com/smc](http://www.erni.com/smc)

At ERNI, we support our clients through their entire developmental journey - from the prototype design to their finished product. Our class-leading experience and vast knowledge in the industrial automation industry gives us a competitive edge over other manufacturers. It is no coincidence that our clients hold ERNI in high regard as an innovative leader and supplier of high-quality electronic connectors worldwide.

Contact us today at [info.eah@erni.com](mailto:info.eah@erni.com) if you wish to learn how ERNI can help you!