

## New ABB solutions for safer machines, processes and people

**New devices and tools make it easier to design safety systems and integrate them into automation systems.**

Hanover, April 13, 2015 – ABB, the leading power and automation technology group, has introduced several new cutting-edge solutions to keep people, machines and processes safer, with simplified safety design. New functional safety devices and design tools, together with ABB's all-compatible ACS880 industrial drives, allows machine and safety system designers to build their own application-specific safety solutions and quickly integrate them into automation systems.

Using PROFIsafe communication over PROFINET, many drives can be linked to a safety PLC (programmable logic controller) such as ABB's AC500-S as part of a system-wide safety solution. The new safety fieldbus adapter module FENA-21 simplifies design and construction of larger safety systems, enabling rapid, reliable connections. The ACS500-S offers fast and reliable control of several drives as well as enhanced safety performance through ABB's optional TÜV certified FSO-12 safety function module.

The FSO-12 is an encoderless plug-in module that provides safety levels up to SIL 3 and PL e, and includes several safety functions such as safely-limited speed (SLS), safe stop 1 (SS1) and safe brake control (SBC) all in the same module.

For safety functions like safe direction (SDI) which require encoder feedback from a motor, ABB supplies the FSO-21 safety functions module together with the FSE-31 pulse encoder interface. These integrate smoothly to the drives' control unit.

The FSO builds upon the concept of integrated safety which is already part of the ACS880 industrial drive series, which includes safe torque off (STO) as a standard feature. STO is an electronic safety function, to be used instead of traditional electro-mechanical methods like contactors.

ABB also offers a functional safety design tool (FSDT-01) to make the overall safety design process simpler and faster. The tool helps machine builders, OEMs and system integrators to do the required safety system calculations in order to achieve safety levels (SIL and PL). Using logical steps and following machinery standards EN IEC 62061 and EN ISO 13849-1, the tool reduces the designer's workload by simplifying the safety design process and ensures that calculations are done according to standards. FSDT-01 is compatible with many safety libraries, including ABB's safety devices, as well as allowing other manufacturers devices to be easily added. These safety solutions can be used individually, or in combination with each other.

The benefits unlocked by integrating intelligent devices and services are part of the Internet of Things, Services and People (IoTSP). Technologies such as cloud-based computing and mobile communication are creating a new generation of advanced services, more empowered workers and improving productivity, flexibility and safety.

Photos can be found on the press area of our website [www.abb.de](http://www.abb.de).

# Press Release



## Internet of Things, Services and People

ABB has been advancing technologies for the “Internet of Things, Services and People” for more than a decade via its control systems, communication solutions, sensors and software. Its technologies allow industry, utility and infrastructure customers to make more intelligent use of data to optimize their operations, increase productivity and flexibility. The product featured in this release extends the offering of ABB in this field.

ABB ([www.abb.com](http://www.abb.com)) is a leader in power and automation technologies that enable utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in roughly 100 countries and employs about 140,000 people.

For help with any technical terms in this release, please go to: [www.abb.com/glossary](http://www.abb.com/glossary)

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