# You are automating tomorrow's world We are ensuring optimum connectivity Let's connect.





3.5

construction

3.9

overall

4.0

Paper and printing industry

Food

2.9



### Networking between all aspects of life is on the rise

System architectures are gaining in complexity

Globalisation is entering a new phase: as the emerging markets enter a boom period, there are more than 2 billion new consumers on the world market. At the same time, general mobility is increasing and resources are getting scarcer. Transport networks are becoming increasingly more complex and safety and facility availability requirements increasingly more demanding. This is speeding up the move to the next level of industrial automation. These effects are amplified by global urbanisation. Megacities integrate ecology, infrastructure and housing in a complex way. Flows of supplies, traffic, goods and communication therefore have to be controlled effectively. A constantly high level of safety, reliability and operability is needed - for everything from software and hardware to connections. Device manufacturers and system integrators, who intelligently network smart technologies and thereby safely control complex, system-wide processes, are not only making a key contribution to solving future challenges, but are also tapping into the accompanying potential for growth.



### The real and virtual worlds are merging into one

#### The change is marked by intelligent systems

In most industries, device manufacturers play a key technological role because they operate at the level at which hardware and software innovations for major system solutions are produced from extensive system know-how. Electronic devices – from sensors and control systems to actuators – in all industries therefore make up the central nervous system of networked processes – for example in production or building automation, energy technology or the process industry. When machines and products autonomously communicate with one another and with humans in the smart factories of the future, we will experience a huge change in all aspects of life, marked not just by increasing

automation but more importantly by increasing complexity. Mastering these multi-layered processes and complex structures on the one hand and optimising cost and resource efficiency on the other hand is a challenge, yet offers potential for differentiation. **Universal connectivity solutions** for power, signals and data



# Asia/Australia Forecast of number of industrial robots by region around the globe in 2012 and 2015 (in thousands)

## The age of digital production has already arrived

Industry 4.0 is a realistic vision

The device manufacturer industry will focus on two issues in the future: digital production and Industry 4.0. Digital production involves the further development of industrial production, moving towards highly efficient, intelligent, company- and industry-wide processes. Industry 4.0 is the name given to the fourth industrial revolution driven by the Internet: production technology and IT merge into cyber-physical production systems in a smart factory. Automation systems automatically manage themselves, analyse processes and adapt themselves ideally.

When monitoring, controlling, regulating or automating processes, a reliable electrical connection for industrial devices is a link in the function chain that is not to be underestimated. As an industrial connectivity partner, Weidmüller supports the measurement, conversion and processing of power, signals and data with secure, intuitively operated interfaces and reliable connections. We are your partner as you progress to the future.



### Perfect connection solutions for devices in signal processing and power electronics

We connect interfaces - the world over

As a leading provider and pioneer in device connection methods and housing technology, Weidmüller supports the structured cabling and connection of power, signals and data to automation technology devices in the electrical cabinet and in the field. Our worldwide Design-In Support combines custom services with application-based products for optimum solutions. For example, our OMNIMATE® device plug-in

connectors represent an increase in the value of devices and efficient development and manufacturing processes with PCB terminals and plug-in connectors, feed-through terminals as well as electronics housings for industrial applications. Field-wiring components provide increased efficiency for wiring in the electrical cabinet or the field and when setting up a consistent network infrastructure. Connection

solutions for Industrial Ethernet, sensor/actuator interfaces and cable assembly as well as heavy-duty plug-in connectors are the heart of industrial connectivity. Concentrate on the most important thing, your core competency. As your partner, we provide application-based and innovative connections.



## **Building systems** and technology 21 Automation technology 16 Shares of the various segments on the industrial electronics market around the globe (as percentages) Source: statista.com; ZVEI, 2010

## Increased efficiency over the entire life cycle

Total cost of ownership

The increasing demands of technology, such as greater power density in electronics, are challenges for engineering, but also crucial factors for success in device application. Applications featuring power electronics have tough development requirements when functions for decentralised intelligence, control tasks, security or communication have to be integrated in the interfaces, and greater output has to be produced from smaller and smaller designs.

We combine decades of experience with innovative technologies to create connectivity concepts which can overcome conflicting requirements in device design. For example, this means more performance, plus integration of functions in smaller spaces on the PCB and in the front panel. Through our design-to-cost approach, in addition to component production costs, we are also optimising efficiency in device design, in processing, assembly, installation, operation, maintenance and environmental compatibility. Viewed from this angle, our quality translates into plant availability and system stability.

We are your partner as you progress towards the automated world of the future. Let's connect.

Weidmüller Interface GmbH & Co. KG Klingenbergstrasse 16 32758 Detmold, Germany Tel. +49 5231 14-0 Fax +49 5231 14-2083 info@weidmueller.com www.weidmueller.com



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