



Electronic Development

Overview

MESCO Engineering is your partner for electronic and software developments for factory and process automation. Our core expertise is the development of remote I/Os and field devices. We specialize in R&D services for automation and industrial communication with a focus on fieldbus/Ethernet implementations, on designs for explosive areas and for Functional Safety.

We provide our customers with:

Analog developments

- 0,05 ... 0,25% typical accuracy
- 12bit ... 24bit A/D
- 10 SPS ... 1 MSPS
- <50 ppm/K typical temperature drift
- Galvanic isolation of supply unit and communication signals
- Power supplies with optimized space/efficiency rate

Digital developments

- 8 bit ... 32 bit microcontroller
- Power management (μ W)
- Real-time capability
- Fieldbus interfaces



Services

Consulting

- Implementation concepts / feasibility studies / case integration
- Consulting for functional design
- Concepts for explosion-proof
- Concepts for Functional Safety

Design

- Common and complex system architectures
- Mixed-signal design
- Low-power design
- Miniaturization
- IECEx design
- Functional Safety design
- EMC compliant design
- PSpice simulation
- Complete documentation incl. worst case calculations

Layout

- Schematics and layouts on various systems
- Consideration of modern manufacturing technologies (multilayer, HDI, flex circuits and others)

Testing

- Tests for temperature, environment, EMC
- In-house laboratories for EMC, electronics, fieldbus systems

Prototyping

- Rapid prototyping
- Collaboration with series manufacturers

