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 (µW)
- 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