



MESSELEKTRONIK GmbH

COMPANY PRESENTATION

VELOMAT Messelektronik GmbH

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VELOMAT – Precision in every measurement

Measurement technology from Kamenz – since 1990

- Development and manufacture of sensors, measurement electronics and control systems, tailored to individual customer requirements
- Software and firmware development, and calibration
- From one-off items to mass production: manufacturing to customer specifications
- Craftsmanship and modern manufacturing technology: every product is inspected by qualified staff
- Values: quality, flexibility, individuality, practical relevance

Customers worldwide in

- Crane and Lifting Technology
- Conveyor and Lift Technology
- Medical technology
- Test bench technology
- Automotive and Railway Engineering
- Stage technology

History and Milestones

1990

Foundation of VELOX
Automation GmbH in Brauna

1993

Manufacture of electronic
assemblies; supply of force
transducers, optical sensors and
membrane keyboards

1998

Moving to Kamenz

2000

Change of name to VELOMAT
Messelektronik GmbH

2001

Certification to DIN EN ISO
9001; commencement of
production of bespoke DMS
force transducers

2004

ATEX accreditation by the PTB

2006

An Introduction to Orthopaedic
Technology and Sports
Medicine

2011

Change of ownership;
certification to DIN EN ISO
13485

2012

IECEX accreditation; new
building to expand production

2013

Laser welding, thin-film
technology for force
transducers, automated optical
inspection (AOI)

2015

Expansion of SMD production
capacity

2016

Introduction to laser engraving
technology

2017–2023

CNC machining of sensor
blanks; acquisitions of
bachmesstechnik, DEZIDATA
and FORTech; construction of a
new administration building
and a photovoltaic system

2024

New selective soldering
machine

2025

New SMD machine

The Group

VELOMAT Group GmbH



**VELOMAT
Messelektronik GmbH**

Sensors and
measurement
electronics



DEZIDATA TVE GmbH

Tanker technology and
logistics systems



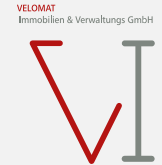
**FORTech Software
GmbH**

Data visualisation and
automation



VELOMAT Cyprus Ltd.

Sales for South-Eastern
Europe



**VELOMAT Immobilien-
und Verwaltungs
GmbH**

Property and
Management

Certifications



DIN EN ISO 9001

Quality Management



DIN EN ISO 13485

Quality management for
medical devices



IECEx

Accreditation
DE/PTB/QAR.120008/00



ATEX

Approval
PTB 04 ATEX Q039-1

Electronics manufacturing – from one-off items to mass production

350 m² of production space

Manufacturing expertise

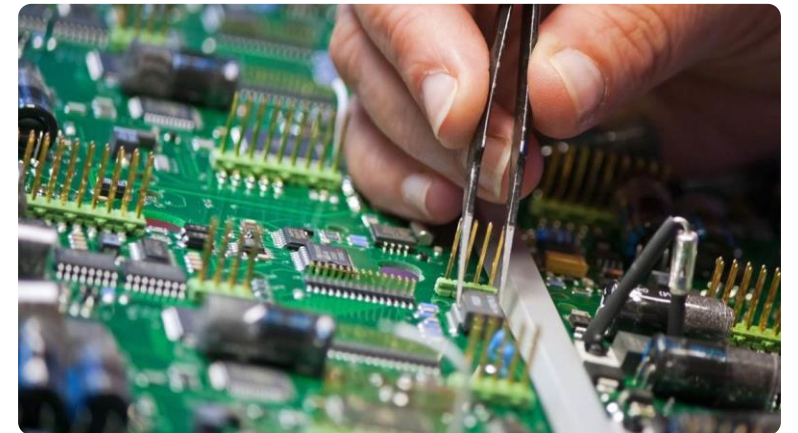
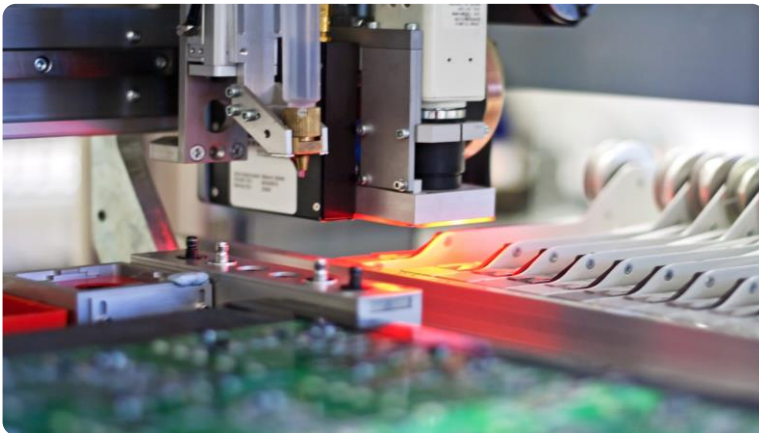
- SMD and THT assembly
- Selective brazing
- Automated Optical Inspection (AOI)
- Laser welding for precision joints

Quality and Testing

- 100% visual and functional inspection
- Test reports and traceability
- Certified to DIN EN ISO 9001

Flexibility and individuality

- Small and medium-sized production runs from a minimum order quantity of 1
- Customisation of printed circuit board layouts to meet customer requirements
- Firmware programming and integration



Sensor manufacturing – from blank to calibration

600 m² of production space

Technology and Processes

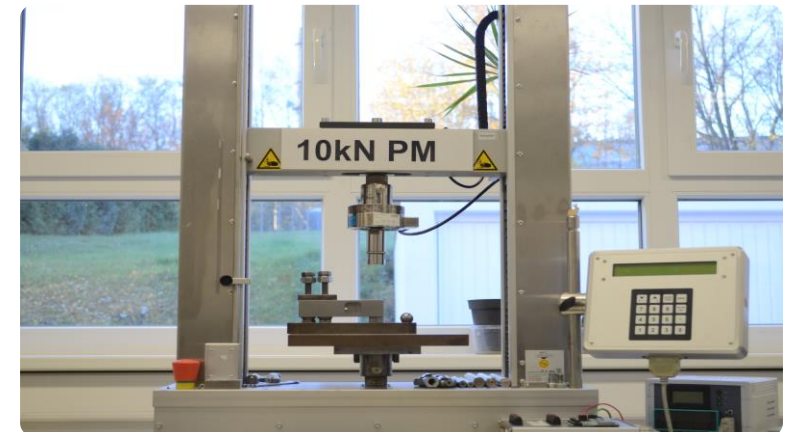
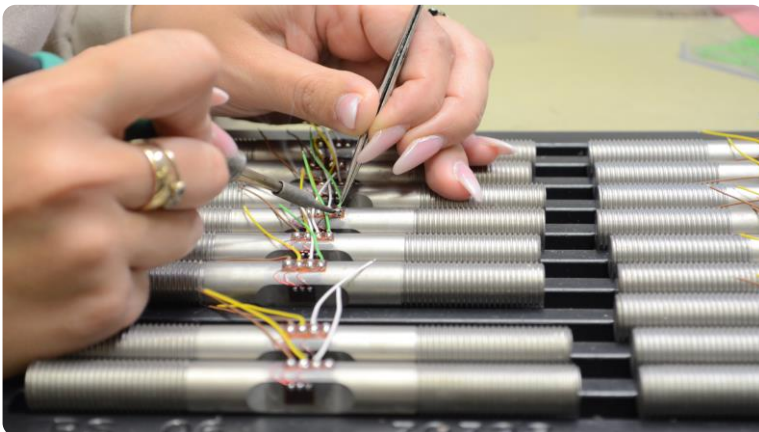
- Thin-film and DMS technology
- Laser welding for robust sensors
- Automated and manual testing procedures

Machining

- In-house CNC turning and milling centres
- Machining of sensor blanks, laser engraving
- Fine-tuning and final assembly

Calibration and Quality

- Calibration in accordance with ISO/IEC standards
- Test equipment traceable to national standards
- Documentation for each sensor



Our sensors

In-house development and manufacturing

Shear beam

Bending beam

Load-measuring bolt

**Tension and compression
force transducers**

Strain gauge

Torque transducer

Displacement sensors

Temperature sensors

Flow sensors

Level sensors

**Vibration: Sensors,
transmitters, monitors**

Custom designs

ATEX sensors

Sensor accessories

Our electronics

In-house development and manufacturing

Measurement amplifier

Limit switch

Load monitoring

Measurement controller

Small control systems

Data logger

**Displays for mobile and
stationary use**

ATEX equipment

**Accessories for measurement
electronics**

Cable assembly – to specification, from single units to mass production

Our services

- Assembly in accordance with the customer's specifications and drawings
- Single-core, flat ribbon, round cables and specialised cables
- Crimping, soldering and cut-to-length terminals

Quality and Testing

- 100% visual inspection and continuity test
- Test reports and serial number allocation
- Crimping and cutting tools that are regularly inspected

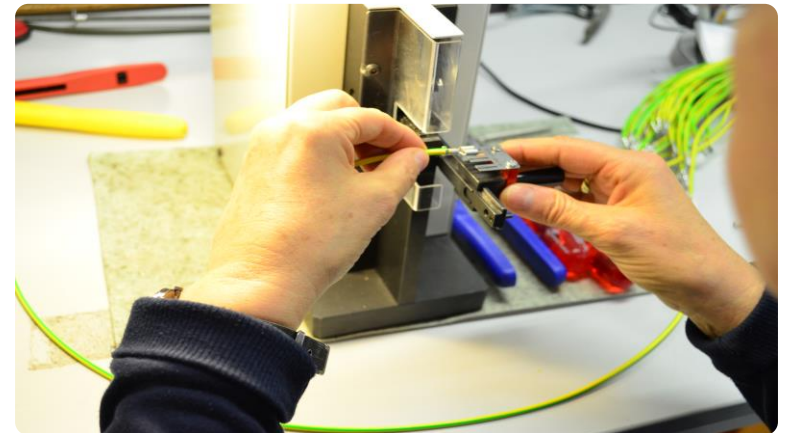
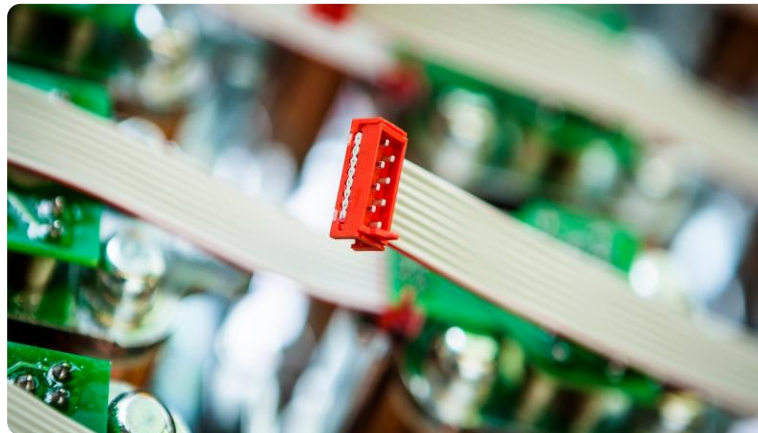
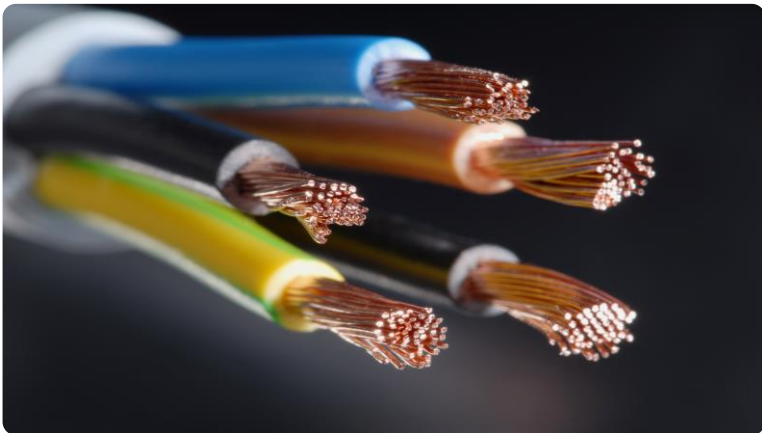
Diversity and compatibility

- A wide range of connectors
- Manufacturing, from one-off items to mass production
- Integration into assemblies, sensors and electronic components



Cable assembly – Scope of services in detail

- Assembly of stranded wires and cable harnesses
- Wire cross-sections from 0.014 mm² to 25 mm²
- Single-core and multi-core cables
- Flat ribbon cables and data cables
- Control cables, shielded and unshielded
- Cables suitable for use in drag chains
- Encapsulation of connectors
- Customised solutions based on drawings or specifications
- Integration of electronic components into the cable routing



Software and firmware development for sensor technology and measurement systems

Development and Architecture

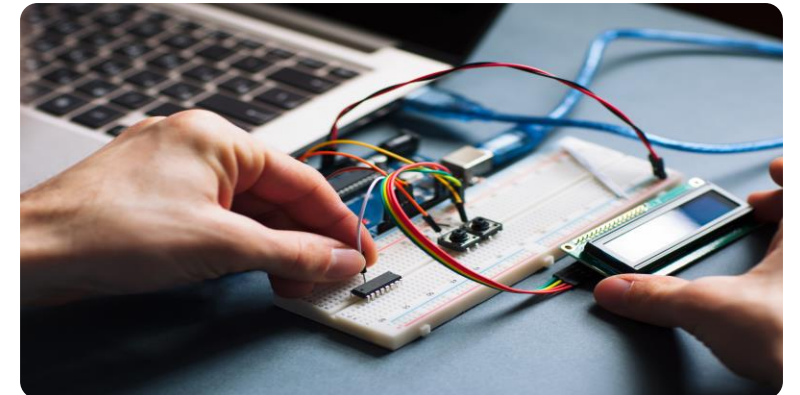
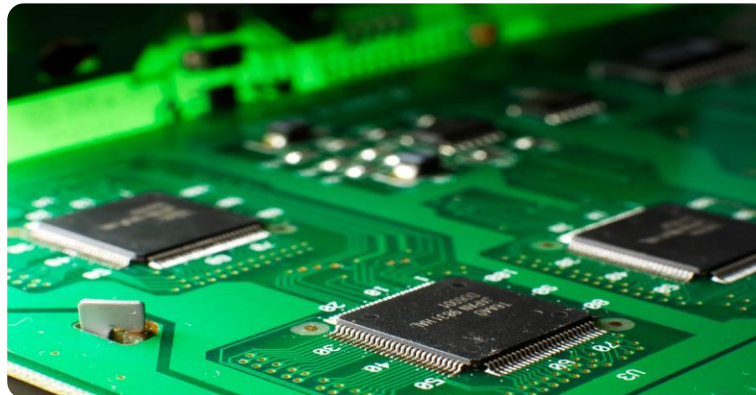
- Customised embedded software for sensor technology and electronics
- Modular software solutions
- Firmware for control systems, test and measurement systems

Interfaces and Integration

- CAN, UART, USB, RS232/RS485, I²C, SPI
- Modbus, CANopen and custom protocols
- Connection to PLCs, industrial PCs and embedded controllers

Testing and Quality

- Simulation and commissioning support
- Validation through HIL and software testing
- Version control and documentation in certified quality management



Our measurement technology in action



Crane and Lifting Technology



Conveyor and Lift Technology



Medical technology



Test bench technology



**Automotive and Railway
Engineering**



Stage technology



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Please get in touch with us

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