# **PRODUCT RANGE**

- Low pressure test rigs for domestic and industrial gas meters
- Closed-loop test systems for thermal gas meters
- Manufacturer test systems for metering stations
- High pressure test rigs for gas meters designed as closed-loop or as bypass
- Testing rigs for domestic and large water meters testing rigs
- Testing rigs for heat meters
- Testing rigs for electricity meters
- Mobile gas and water and electricity meter testing rigs
- Testing equipment for gas pressure regulators
- Flushing equipment
- · Leakage testing equipment
- Testing equipment modernization
- Measurement data evaluation systems (InoCloud)

# **SERVICE PROGRAM**

- Calibration services according to DIN EN ISO/IEC 17025:2018
- Remote support and on-site service
- Maintenance contracts
- Preventive maintenance
- Update service
- Spare parts deliveries
- System expansion
- Software support with customized adaptations
- Customer related trainings

You can find more information here:



We are happy to answer your questions on site or you can contact us online at

www.inotech.eu/en





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Camino Camera System
for Efficient
Calibration



# **PRODUCT INFORMATION**

With the camera solution, the company inotech M.C.S. offers a self-developed system for feature-based pulse recognition and industrial image processing based on state-of-the-art hardware with the use of artificial intelligence.

All functions of the previous pulse detection are fully covered. The setup and positioning times are reduced to a minimum due to the automatic recognition of the features.

The common pulse can still be used for mechanical control of gas meters.

With the mechanical totalizer, the individual digits of the last totalizer roll are identified instead of just the reflective. This allows control measurements with totalizer to be started much earlier.

In the case of electronic meters, the use of this system eliminates the need for manual meter reading with standing start/stop or the use of special hardware for cryptographically encrypted communication with the meter.

# **TECHNICAL DATA**

#### **GENERAL**

- Automatic position detection of definable features
- Evaluation of pulse, mechanical and digital totalizers
- Expandable with additional totalizers and features
- Decoding of 1D and 2 barcodes\*
- Text recognition (OCR) for checking texts on the type plate\*
- Image comparison with stored templates\*

### PROCESSING SPEED

- Pulse: 100 images/second (FPS)
- Mech. Totalizer: 25 images/second (FPS)

## **BENEFITS**

- Reduction of test times by up to 17 % possible
- Replaces handheld terminals for entering meter data such as serial number and year of manufacture\*

#### COMPONENTS

• Processor: NXP i.MX 8M Mini

• Camera: Basler

• Resolution: 5 MP (2560x1920)

• Lens: Evetar

### **VARIATIONS**

- Camino Standard: Direct replacement of the photoelectric sensor. Pulse generation based on defined characteristics
- Camino Connect: Extended version with integration into the system control and the test bench PC

<sup>\*</sup> Only Camino Connect. Available Q2/2022