

## Calibration services

Competent, cost-effective, compliant



# Put our service team to the test!

Our customers choose Endress+Hauser for services for the same reason they specify our technology: they're assured of a top-quality, cost-efficient solution. They've also realised that with demands on their engineering and maintenance personnel higher than ever, deploying Endress+Hauser service engineers is an excellent use of resources. We're experts in delivering a thorough job in the minimum possible time. It's what we do, time and again.

## Responding to our customers' needs

Our service team in the UK is now almost 50 people strong. With a wealth of experience and expertise, we are large enough to cope with your calibration requirements but also specialised enough to deliver quality solutions. Our field service personnel operate throughout the UK - so wherever you are, we're not far away!

## Reaping the benefits of balance

The need to regularly check, calibrate and adjust instruments is a critical activity within every quality-controlled organisation. Using our expertise to ensure the accuracy of your measuring instruments can significantly improve the control, safety, quality and efficiency of your production plant. However, we also recognise that excessive calibration is wasteful and unnecessary. We can help you strike the right balance.



For more information on our service offering, visit [www.uk.endress.com/services](http://www.uk.endress.com/services)

The Endress+Hauser UK service team.





One of Endress+Hauser's accredited calibration rigs in Cernay, France.

## World-class calibration

Endress+Hauser performs and advises on all aspects of calibration from in-situ testing through to fully accredited factory calibration. We see our calibration service as part of your maintenance planning and will support you from the initial audit of your installed base through to repairs and replacements.

Our primary calibration facilities meet the requirements of ISO 17025, guaranteeing the highest levels of accuracy, relevant certification and easy-to-understand calibration data. We'll also show you how, by managing your calibration records, you can gauge the performance of each instrument, optimise your processes and reduce costs by eliminating unnecessary servicing.

The option of on-site calibration helps to keep process disruption to a minimum. Having invested in mobile reference tools, Endress+Hauser performs on-site calibration across a variety of measuring principles, including flow, pressure, temperature, pH and conductivity. For you this means reliable advice, optimum performance of your instruments and true cost-effectiveness. We calibrate all equipment, regardless of manufacturer, to reduce time, effort and cost in terms of co-ordination and documentation.

As a leading supplier of field instrumentation we not only calibrate but also quickly adjust, repair or replace equipment that is failing to meet the specified criteria. Where factory calibration is required, your instruments can be returned in fewer than five days on request.

### Traceable and accredited

- ISO 17025-compliant primary calibration facilities
- Certified and traceable documentation

### Cost savings

- Optimised instrument performance reduces product losses
- Maximised plant availability
- Cost-efficient calibration intervals

### The Endress+Hauser standard

- Specialist, highly-qualified engineers
- Choose from factory or on-site calibration
- Compliant with national safety standards

# UK calibration competence

All of our UK calibration facilities are traceable to national standards and meet the requirements of ISO 17025.

## Flow

Flowmeters from 8–100mm are calibrated against Endress+Hauser Promass Coriolis twin reference meters. Calibration of your flowmeter can be carried out in volume or mass, with a calibration uncertainty of  $\pm 0.08\%$ . Our flow calibration rig is suitable for any meter with DIN/ANSI flanges, screwed threads or hygienic process connections and flow ranges from  $0.1\text{m}^3/\text{hr}$  to  $90\text{m}^3/\text{hr}$  (100 to 90,000kg/hr). Our in-house water flow calibration rig incorporates the very latest developments in Endress+Hauser flow technology to provide high quality, water-based flow calibrations.



## Pressure

Our experienced technicians will calibrate your pressure device to your own metrological specifications in our state-of-the-art laboratory. We can calibrate device ranges from 25 mbar up to 250 bar to a certified uncertainty of  $\pm 0.015$  mbar in the range of 0 to 10 bar or  $\pm 0.05$  bar in the range 0 to 250 bar. Our computerised systems mean that our work is both rapid and flexible.



## Temperature

Temperature measurement is a vital factor in the quality control of your final product. In our in-house laboratory we will calibrate your temperature device to your specific requirements (from  $-15^\circ\text{C}$  up to  $600^\circ\text{C}$ ).



## Test and measuring equipment

Endress+Hauser's in-house calibration facilities can also test and calibrate engineers' test and measuring devices such as frequency counters, multimeters and resistance boxes.





With our fleet of mobile calibration rigs, we'll come to you!

## On-site calibration: save time, save money, save effort!

### On-site calibration services

On-site calibration is performed by specialist, highly trained engineers. Convenient and cost-effective, it removes the need to send instruments off site as our specialists come to you, keeping downtime to an absolute minimum. It also offers the highest flexibility as calibration can be scheduled according to the availability of each of your devices. Our qualified and experienced field service engineers can diagnose faults there and then, performing adjustment and recalibration instantly where necessary. Having our engineers on your site also offers the benefit of direct communication with your staff and means that calibration takes place close to the operating conditions. All Endress+Hauser on-site calibrations are traceable to national standards and calibration certificates are ISO 17025 compliant.

### On-site analytical calibration

In the field of analytical calibration, we now offer a calibration service for your Memosens digital sensors. Using the latest advances in offline calibration, we can perform fully documented, traceable calibration of your pH/ORP, conductivity, dissolved oxygen and chlorine Memosens sensors. Additionally, the final report includes all of the sensor's calibration and operation history, including a chart showing historical slope and zero point - vital aids for predictive maintenance.





## Do you have a calibration plan?

We've all heard the familiar warning: "Fail to plan, plan to fail." But what are you doing about your calibration needs?

### Implement a calibration plan and increase profit!

Every plant manager is looking to continuously improve productivity and keep costs down while maintaining regulatory compliance. But meeting those demands can be difficult due to financial pressures, tightening of regulations and the complexity of your installed base. Endress+Hauser can relieve your calibration and maintenance headaches, freeing you up to focus on your core business with total peace of mind.

A perfectly balanced calibration plan can not only improve plant performance but actually boost profit. It is not just about cost savings but also about contributing to your bottom line, by improving your calibration and manufacturing processes. Through a unique partnership with Endress+Hauser, you can optimise your instrument performance and ultimately improve product quality.

### A clear view of your assets

The first step in implementing a successful calibration plan is to get a clear view of your assets. This may seem a daunting task, with multiple measuring points and instrumentation from several suppliers to take into account. But Endress+Hauser can help you determine which instruments are the most important for your particular application, the production environment and operator safety. Our

Installed Base Audit is a three-phase analysis of all the instruments on your site that highlights the process-critical measuring points. Using this data we can make recommendations for maintenance improvements, meaning you can start to reap the benefits of optimum process control.

### Traceable records

Together we'll implement a calibration schedule to find the optimum point where costs and unplanned downtime are at a minimum. Our calibration management software, CompuCal™, will improve your calibration planning and at the same time satisfy the requirements of your auditors by providing traceable and auditable records. CompuCal also provides links to W@M, Endress+Hauser's life cycle management solution. Using the serial number on your instrument, W@M allows you to download calibration certificates and technical information, find spare parts and even access prices and delivery times of spares or new devices.

These tools offer transparency and clarity of information about the activities that our service engineers are performing on site, as well as holding complete information on all your assets. The results are measurable in terms of cost savings, performance improvements and a higher quality product.

# Step-by-step calibration management services

## Step 1: Kick-off meeting

In co-operation with your staff, the definition of the measuring points to be calibrated, the presentation of the tasks and processes and the creation of the work breakdown structure is carried out. This allows optimisation of calibration scheduling, resulting in a reduction of downtime.

## Step 2: Perform calibration

On-site calibration is performed by specialised and highly-trained engineers. For you this means reliable advice, optimum instrument performance and true cost-effectiveness. Endress+Hauser service engineers are trained and qualified to execute calibrations in line with your quality requirements.

## Step 3: Analysis of calibration results

After calibration, the results are gathered and analysed, providing an overview of the work performed, the metrological performance and installed base 'health'. From the figures obtained we devise a calibration strategy to optimise your maintenance efforts.

## Step 4: Documentation management

In addition to calibration certificates, a W@M Portal is created and populated. All records including qualifications and accreditations are held here and are instantly accessible.

## Step 5: Review meeting

This meeting brings the opportunity to review the work performed, identify any weak spots and define improvements for the future. Improvements are documented in an action list and used for the next review meeting.



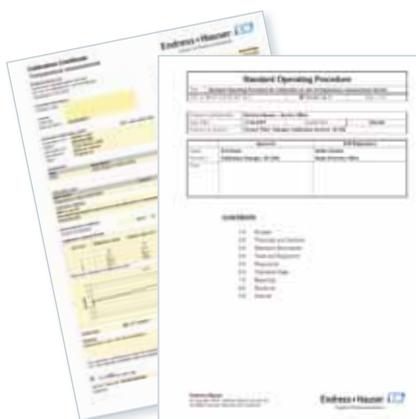
Step 1: Kick-off meeting



Step 2: Performing calibration



Step 3: Analysis of results



Step 4:  
Documentation management



Step 5: Review meeting

# Our calibration capabilities

Endress+Hauser calibrates a range of instruments covering a variety of measuring principles.

Parameter	Equipment type	Calibration location
Temperature	<ul style="list-style-type: none"> <li>■ Resistance thermometer</li> <li>■ Probe and temperature transmitter</li> <li>■ Probe and display</li> <li>■ Thermocouples</li> </ul>	On-site
		In the laboratory 
Pressure	<ul style="list-style-type: none"> <li>■ Manometer</li> <li>■ Pressure sensors</li> <li>■ Pressure transmitters</li> </ul>	On-site
		In the laboratory 
Flow	<ul style="list-style-type: none"> <li>■ Electromagnetic flowmeters</li> <li>■ Vortex flowmeters</li> <li>■ Coriolis flowmeters</li> <li>■ Ultrasonic flowmeters</li> <li>■ Thermal flowmeters</li> <li>■ Mechanical flowmeters</li> </ul>	On-site
		In the laboratory 
Level/distance	Radar level gauge	In the laboratory 
Conductivity	Conductivity measuring chain including cell, transmitter and cable.	On-site
pH	pH measuring chain including cell, transmitter and cable.	On-site
Other parameters	Vat calibration (strapping table) plus calibration of existing level device if required.	

## UK

Endress+Hauser Ltd  
 Floats Road  
 Manchester  
 M23 9NF  
 Tel: 0161 286 5000  
 Fax: 0161 998 1841  
 info@uk.endress.com  
 www.uk.endress.com