Finding the right balance

Services at a glance
Providing quality products and quality services to assure your plant has the right balance!
Hand in hand – through the life cycle of your plant

An optimized process plant requires quality products, application expertise and quality service support. Endress+Hauser understands your challenges.

Our complete service for your plant includes:
- Engineering services
- Procurement solutions
- Commissioning and maintenance concepts
- Calibration and calibration concepts
- Instrument repair and spare parts service
- Seminars and courses for training and professional improvement
- Competent technical support for your questions
Services, solutions and tools for your plant life cycle

Life Cycle Management at Endress+Hauser

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Efficiency is a matter of balance

Plants have to run consistently and reliably. This requires quality instrumentation and a well balanced maintenance plan.

Endress+Hauser has served its customers with innovation, drive and continuity for more than 50 years. We develop sensors and facilities which acquire, transmit and process information from production and logistics processes. In addition, we offer customized services across the entire instrumentation life cycle. We support our customers all over the world from plant engineering, procurement and installation through operations and maintenance.

Which instrument, under what conditions, provides the required data, involves the least maintenance work, can be integrated into the control system best, and – at the same time – has an optimum cost/benefit ratio? Our specialists support you in every respect to find a suitable answer to all questions.

Our services are tailored to your needs.

<table>
<thead>
<tr>
<th>Service</th>
<th>USA</th>
<th>Canada</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales, consultation and spare parts</td>
<td>800-642-8737 Option #4</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1131</td>
</tr>
<tr>
<td>Commissioning, calibration and field service</td>
<td>800-642-8737 Option #2</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1145</td>
</tr>
<tr>
<td>Technical support for instrumentation</td>
<td>800-642-8737 Option #3</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1123</td>
</tr>
<tr>
<td>Instrument repair and laboratory calibration</td>
<td>800-642-8737 Option #1</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1132</td>
</tr>
<tr>
<td>Training and seminars</td>
<td>800-642-8737 Option #5</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1153</td>
</tr>
</tbody>
</table>

That may be a single, specific service like the calibration of your flowmeters or the supply of comprehensive automation solutions in accordance with your specifications. Our competence is applied exactly at the point where you need it aiming at a balance between cost and benefit.
A companion for your plant

This brochure introduces Endress+Hauser’s broad portfolio of services, solutions and tools to support you throughout the life cycle of your plant. Its contents are organized to help you find the information you need based on your needs and focus. You will find information about our service capability close to you, as well as see the strength of the worldwide service network of the Endress+Hauser group.

You can find out more about anything in this brochure by visiting our website. Please use the web addresses you find throughout the following pages to help you reach the information you want.

You can download this brochure and all the other documentation listed in it by visiting: www.us.endress.com/ServicesPortfolio
The classic enterprise structure shows two clearly separated worlds: the world of business processes reflected in an ERP system and the world of production with its distributed control systems. In recent decades, the development of industrial plants has mainly focused on two aspects: processes and their control during operation. Optimum instrumentation and sophisticated control mechanisms have continually increased process safety, productivity and economic efficiency.

This involves the optimum use of all plant assets and the protection of their value. The condition of machines, sensors and all other facilities often represents a critical variable. Knowing the process status is not sufficient. A breakdown of one hour usually means the loss of an immense sum of money. Avoiding plant downtime, keeping maintenance and repair periods as short as possible – these are the requirements today. The key to predictive engineering and economic management of production plants is information.
Discover your plant potential with W@M™ – Life Cycle Management

Data about a plant and its components is generated right from the first day of planning: in engineering and sizing, in procurement, in installation and commissioning, in operations and maintenance. Every phase of the life cycle of a plant and its assets requires information. W@M lets you capture it.

With W@M – Life Cycle Management, we offer you an open and flexible concept for your entire plant life cycle. Customized services, solutions and software tools support you in your every day tasks.

Your benefits in engineering
- Reduction of engineering time and costs
- Fast and safe selection and sizing of the correct measuring instruments for your application
- Documentation and administration of projects

Your benefits in procurement
- Reduce procurement costs
- Optimize the quality and speed of your procurement processes
- Your price and delivery data is always available online

Your benefits in installation, commissioning and operations
- Faster plant commissioning
- Increased plant availability
- Maximum safety in processes and personnel
- Compliance with internal and external quality requirements
- Effective service, maintain and optimize your installed base
- Continuous planning reliability
- Product documentation is at hand

Additional information
www.us.endress.com/W@M
www.ca.endress.com/W@M
www.mx.endress.com/servicios

Additional documentation
W@M – Life Cycle Management (CP001Z)
Endress+Hauser offers you specially tailored service packages, tuned to the most varied industries. In addition to our standard support services like Technical Support, instrument repair work and on-site service we assist you with individual solutions for commissioning and maintenance.

We continually extend our scope of services in order to provide a comprehensive program to you at any time. This also includes services outside of our core competence. In such cases, we rely on system partners who – particularly in plant-specific special solutions – have the industry-related know-how at their disposal which is required e.g. for overall solutions concerning major process plants.
Some examples of our service offerings

**Chemical industry**
- Service concepts for the entire product life cycle of instrumentation components and solutions
- Seminars and training sessions concerning industry-specific subjects like explosion protection, plant safety and overspill protection (ATEX, SIL, WHG), individual service seminars
- Solutions for plant asset management

**Pharmaceuticals**
- Preparation of Standard Operating Procedures (SOPs) for installation and commissioning, Factory Acceptance Tests (FATs)
- Installation and commissioning including engineering, system integration, instrument configuration and system tests, delivery of documentation, training
- Systematic qualification subdivided into the Design Qualification (DQ), Installation Qualification (IQ), Operation Qualification (OQ), Performance Qualification (PQ)
- Accredited calibration services, calibration management solutions according to FDA 21 CFR Part 11

**Food**
- Recording of the installed instrument basis and development of maintenance concepts
- Instrumentation services within the framework of HACCP
- Accredited calibration services to comply with IFS-/ISO 22000 audit requirements
- Calibration management solutions for quality assurance purposes

**Power plants and energy**
- Support in assembly, installation and commissioning of instrumentation components and solutions
- Recording of the installed instrument basis, development of maintenance concepts
- Individual service seminars and training sessions
- Solutions for plant asset management

**Environment**
- Support in commissioning of instrumentation components and solutions
- Modular maintenance concepts for water and wastewater treatment plants
- Inspection of flow measuring points at sewage plants according to EÜV, EigÜVO, EKVO, SüwVO DIN 19 559
- Rental service of ultrasonic flowmeters

We can support you with customized service concepts for your industry.
An essential contribution to the success of your projects

The Service organization is becoming an increasingly important contributor to the success of a process automation project as the solutions for our customers become more complex and international in scope. Only a competent and trustworthy Service organization with a strong global presence will achieve the efficient implementation of your instrumentation throughout the world.

Our International Service Project Network (ISPN) ensures the best possible collaboration between project engineering, project execution while providing a consistent and seamless transition into plant operation. Our global service team is highly trained in all instrumentation related technologies as well as having solution and application experts. We have the resources to deliver high quality commissioning, calibration, bus integration, training and maintenance services. Endress+Hauser teams define and operate just the right level of service you need during the execution and MRO phases.
In the scope of larger projects, Endress+Hauser can take the responsibility for the commissioning site supervision – including mechanical and electrical installation and connection of pneumatics or hydraulic devices – or even the commissioning site management, which means the full coordination of start-up activities.

**Your benefits**

- A constant level of service whatever the project and its location worldwide
- A seamless project hand-over between the teams which are respectively in charge of the engineering and of the execution
- Integrated document management from engineering through hand-off to the site operator
- A single partner takes the responsibility of the instrumentation start-up activities
- A single partner takes care of your instrumentation throughout its life cycle
Competent support world-wide

Permanent and consistent plant availability is of great importance to our customers. Our support is available throughout the entire life cycle of the plant, matching your needs and applications.

Endress+Hauser’s qualified teams perform services according to “Standard Operating Procedures” (SOP’s) which are the fruit of more than fifty years’ experience. They are trained to application-specific regulatory requirements and are eager to share their application know-how with your staff.

The global network and worldwide presence of Endress+Hauser sales and service organization is recognized by international users as an important pre-condition in the selection of a measuring technology partner.

The 40 plus Endress+Hauser sales centers are national firms in charge of sales, marketing and service in their particular country. Over 50 selected representatives complete this global network.

The service network is also fully supported by ‘best of the class’ tools and facilities. One example is our ISO 17025 accredited flow calibration facilities in Switzerland, France, UK, India, China, Japan and the USA. No other service provider offers such ‘quality’ support on a global basis.
As one of the largest process automation networks of service experts, we help you to create new opportunities to maximize the return on your investments in automation and to reduce your operating risks, thus improving your sustainable plant productivity— we work with you as a trusted partner, offering our best advice which allows you to tackle these opportunities with confidence.

**Your benefits**
- SOP’s, tools and training ensure our standard of service is maintained wherever you are.
- Our application know-how helps reach optimum instrument performance in your application.

*Endress+Hauser has the most advanced calibration rigs in the US, including one within the Calibration and Service Center located in LaPorte, TX.*
From assignment to solution

The tasks in plant planning are complex and concurrent. Planners must acquire an overview of the entire project at the beginning and must combine technical components that fit the overall system. These tasks result from the process to be integrated into the plant design. Endress+Hauser offers you a wide range of solutions, services and tools to support you in design and process optimization.
Competent partner for integrated engineering

Endress+Hauser has evolved from a mere supplier of industrial instrumentation components to a provider of solutions for process automation.

Our high-quality, intelligent field instruments are integrated with automation systems and services to provide optimum solutions. National engineering sites and global competence centers guarantee successful projects. The engineering specialists of Endress+Hauser offer a complete range of services from planning through commissioning: concept preparation, basic engineering, detail engineering, installation and commissioning as well as process validation.

The selection of competent and reliable engineering partners is critical to insuring a reasonable return on investment when building new plants and processes.

Decisive for your success

- National and international engineering sites
- Professional project management
- One partner – from concept preparation to commissioning
- Support in operation and maintenance by qualified staff
- Integration of your approved supplier into the project
- Industry know-how and industry networks
- Factory Acceptance Tests (FAT) and Site Acceptance Tests (SAT)
- On-time delivery and commissioning of the complete automation solution
- Complete and detailed documentation

Additional information

- www.us.endress.com/engineering
- www.ca.endress.com/engineering
- www.mx.endress.com

Additional documentation

Process Automation (PA001Z)
Do you intend to extend or modernize your processes through automation? Are you planning a new plant based on fieldbus technologies and industrial ethernet? Endress+Hauser offers you customized solutions integrating high-quality, intelligent field instruments. Modern and high-performance automation systems and services will help you design your production processes in a safe and economically efficient environment.

Apart from project-specific process automation, Endress+Hauser also provides preconfigured, application-specific solutions like energy monitoring, tank visualizing and solutions which can be validated.

A partnership with advantages
- We assume the overall responsibility for process automation from the concept through to commissioning.
- In Endress+Hauser, you have a reliable, fair and competent partner who focuses on the success of your project.
- Our project-specific solutions are tailored to your requirements in an optimum fashion and increase the economic efficiency of your production processes.
- With the tried and tested, application-oriented solutions of Endress+Hauser you achieve brief project periods from ordering to commissioning.

Safety and economic efficiency are the criteria

Additional information
www.us.endress.com/automation
www.ca.endress.com/automation
www.mx.endress.com

Additional documentation
Process Automation (PA001Z)
Profit from our range of services
- Endress+Hauser as a full-range provider for process automation
- Concept preparation and control system planning
- Basic and detail engineering
- Supply and assembly of field instruments, switch cabinets and automation system
- Vertical integration into your systems
- Project-specific training sessions
- Support in the plant life cycle
- Field network engineering
- Factory site acceptance testing

Examples of our automation solutions
- Batch and process plants
- Dosing, mixing and filling plants
- CIP and SIP plants
- Heating, refrigeration and drying plants
- Water and wastewater plants
- Breweries
- Monitoring of cleanrooms
- Custody transfer of goods
- Remote data acquisition and data processing
- Procurement logistics
Software for engineering processes

Applicator is a sophisticated selection and sizing software for your planning processes. Using the application parameters you enter from measuring point specifications, Applicator determines a selection of suitable products and solutions. Supplemented by sizing functions and a module for project administration Applicator will alleviate your daily engineering tasks.

Applicator may be accessed via the internet, started directly from a DVD or it can be installed on a PC.

The Applicator software consists of modules for
- Product selection (basic)
- Product sizing (detail)
- Project management (administration)

Data and information concerning instruments may be exchanged between modules and imported into your planning system.

Your benefits
- Simple selection guide to all Endress+Hauser products
- Extended measuring point sizing of flowmeters and radiometric solutions
- Extensive project documentation with automatic data transfer from the Applicator modules
- Import and export function for electronic specification sheets (engineering data transfer)
- Integration of the Endress+Hauser product program as well as further price lists for detailed order code determination
- Free-of-charge updates via the Internet ensure that your databases are always up to date

Tools and software
- Applicator

Additional information
- www.us.endress.com/applicator
- www.ca.endress.com/applicator
- www.mx.endress.com/applicator

Additional documentation
- Applicator (IN013F)
- Applicator CD (DXA80)
Applicator: three tasks – one solution

**Selection**
The Selection module contains the Endress+Hauser product range with more than 600 components. You just enter the parameters of your measuring point and you will see a selection of suitable products.

**Sizing**
Product sizing for flow measuring points or radiometry requires complex calculations. Using the Sizing module makes the calculations clear and reliable. Applicator shows the result in a well arranged display of text and images that can also be represented in graph form.

**Administration**
The Administration module was developed so that you do not have to start each project from the beginning. All of the data and parameters relevant to a project are stored in this module and may be accessed during the project’s life cycle.

<table>
<thead>
<tr>
<th>Image navigation – Displays the plant overview</th>
<th>Input of process parameter and display of calculation results</th>
<th>Compensation of new imported spec sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product comparison of selected products</td>
<td>Display of calculation results in a chart</td>
<td>Administration and documentation of projects in hierarchy levels</td>
</tr>
<tr>
<td>Enter application parameter</td>
<td>Input of tank parameter and calculation of source activity</td>
<td>Display of TAG lists to print or export</td>
</tr>
</tbody>
</table>

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Solutions to optimize and automate your procurement processes

Electronic procurement processes offer you significant opportunities to reduce process costs. You simplify the purchasing process considerably thus making use of further saving potential. This strengthens your competitiveness in a sustained manner.

Apart from personal consultation, we support you with different electronic solutions for your procurement processes completely adapted to your strategic alignment and business processes. You always get the ideal solution which integrates smoothly into your processes and your procurement system.
Every measuring task has individual aspects. We support you in the selection and sizing of a suitable instrument with different software tool solutions. Regardless of the solution you decide on, at Endress+Hauser, you will not go without personal consultation! The solution best suited to your needs is found in a personal discussion with our associates.

Your benefits
- Personal, customized and competent consultation
- More than 600 service associates worldwide
- More than 65 sales and service offices in North America
- 5 regional offices with an engineering support team

Consultation

Service starts with personal consultation

Contact in USA
Tel: 888-363-7377
inquiry@us.endress.com

Contact in Canada
Tel: 866-887-1666
service@ca.endress.com

Contact in Mexico
Tel: +52 55 5321-2080
service.mexico@mx.endress.com
Solutions for integration into your procurement process

Being innovative, improving quality and reducing costs are demands that you and your company are constantly confronted with. As a result, conducting part of your business processes electronically offers you a significant opportunity to optimize your business by drastically shortening the purchasing process, thereby realizing immediate savings in man-hours. As a result, this enables you to strengthen your competitive position on a sustained basis.

Endress+Hauser is a
- Certified SAP Customer Competence Center
- Certified SAP Hosting Partner
- Backup data processing center with synchronous data mirroring

### Tools and software
- Dynamic configuration solution
- ERP-2-ERP integration
- Standardized shopping cart interfaces

### Additional information
- [www.us.endress.com/e-business](http://www.us.endress.com/e-business)
- [www.ca.endress.com](http://www.ca.endress.com)
- [www.mx.endress.com](http://www.mx.endress.com)

### Additional documentation
- Purchasing made easy (CP004Z)
Working in line with your strategic orientation and in business processes, we assist you with individual solutions for integration into your procurement process. This means that you get the ideal solution for your requirements.

- Defined shopping cart interfaces such as OCI
- ERP to ERP connections

Depending on the type of solution, this can be done directly or indirectly via electronic marketplaces.

**Your benefits**
- Reduced process costs
- Increased process quality and speed
- Get the right product faster
- Greater flexibility (24/7)
- Short project and integration times

A presence on the most important marketplaces

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**Procurement**

<table>
<thead>
<tr>
<th>Customer</th>
<th>Marketplaces</th>
<th>Endress+Hauser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement system</td>
<td>Shopping cart interface (for example: OCI)</td>
<td>SAP CRM 4.0</td>
</tr>
<tr>
<td>e-catalog</td>
<td>ERP (SAP XI)</td>
<td>ERP (SAP R/3)</td>
</tr>
<tr>
<td>ERP</td>
<td>Connector</td>
<td>Connector (SAP XI)</td>
</tr>
<tr>
<td>Purchase order</td>
<td>Order</td>
<td>Order</td>
</tr>
<tr>
<td>Order confirmation</td>
<td>Order confirmation</td>
<td>Invoice</td>
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<tr>
<td>Invoice</td>
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</tr>
</tbody>
</table>

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**Diagram**

- RFQ
- Quotation
- Purchase order
- Confirmation
- Invoicing

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**Invoicing**
Track your purchase order

Track your order every step of the way. If you want to install a device you have ordered or need to perform maintenance on devices already installed, you will require the delivery date of the material in order to plan these tasks. Via our website, you can track the delivery of your purchase orders around the clock. Together with our logistics service providers, we provide you with information on the delivery status of your order. Simply enter your order number or our order confirmation number and you are presented with a table containing the various items of your order and the delivery status.

**Your benefits**
- Direct access to the delivery date
- Planning of installation and commissioning

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**Additional information**
- [www.us.endress.com/ordertracking](http://www.us.endress.com/ordertracking)
- [www.ca.endress.com/ordertracking](http://www.ca.endress.com/ordertracking)
- [www.mx.endress.com](http://www.mx.endress.com)
Packaged commissioning solutions tailored to your needs

The demands on your engineering and maintenance staff are higher than ever before. This is where Endress+Hauser can help - our experienced service staff can reduce the startup time to a minimum. That saves costs and your own resources.

Your instruments are vital to the safe operation of your processes and the quality of the product that you produce. The correct startup of the device in such critical applications is paramount if you wish to operate the plant in the optimum way. Yet to understand the new instrument and then program it to work to its peak performance is an ongoing challenge for your personnel. Endress+Hauser can help you.

We perform a complete range of tests and checks to ensure your device works correctly. We provide the staff, test equipment, and we can provide on the job training. Once the work is complete, we report back and issue full documentation.

Your benefits
- Short startup times performed by experienced service staff
- Cost-effective packages focused on your startup requirements
- Device performance guaranteed from the beginning of startup
- Advice and documentation by Endress+Hauser
- All test equipment and special tools provided
In the course of commissioning, we conduct numerous as well as comprehensive tests and trials. In this way, we ensure that the instrument works correctly in accordance with the configuration of your plant and provides the measured values you require. After commissioning, we instruct your associates briefly to familiarize them with maintenance requirements. As soon as the work is concluded, we prepare a final service report.

Your benefits
- Brief commissioning periods by experienced service associates
- Cost-effective service packages tailored to your commissioning requirements
- Guaranteed instrument performance right from the start
- Instruction and extensive documentation by Endress+Hauser
- All of the test equipment and special tools are provided
- Safe and smooth operation due to trained associates

Additional information
- www.us.endress.com/start-up
- www.ca.endress.com/commissioning
- www.mx.endress.com/comisionamiento

Additional documentation
- Startup service (FA022H)
FieldCare – “freedom of choice”

FDT based interface; offers independence of device or system supplier

One tool – all devices!
FieldCare is Endress+Hauser’s FDT based tool. It can configure all intelligent field devices in your plant and supports you in managing them. By using status information, it also provides a simple but effective means of checking their health.

Installation and commissioning
FieldCare ensures that devices can be integrated and configured quickly and easily, with the transparency demanded by good manufacturing practice.

Operations and Maintenance
FieldCare manages device life cycle information and presents it quickly and clearly to the user.

Field Device Tool (FDT)
FDT is a standardized interface specification that allows the integration of intelligent field devices into asset management and process control systems. All configuration and communication information is carried in Device Type Management (DTM) programs (DeviceDTMs and CommDTMs) supplied by the vendor. The DTMs run under the control of an FDT frame application.

Your benefits
- Open technology, independent of device or system supplier
- Independent of device type (sensor, actuator, remote I/O, etc.)
- Field instruments are automatically recognized as the connection is set up and can subsequently be operated immediately
- Links to online information provides efficient and fast access to any relevant field instrument information

<table>
<thead>
<tr>
<th>Tools and software</th>
<th>Additional information</th>
</tr>
</thead>
<tbody>
<tr>
<td>FieldCare</td>
<td><a href="http://www.us.endress.com/fieldcare">www.us.endress.com/fieldcare</a></td>
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<td><a href="http://www.ca.endress.com/fieldcare">www.ca.endress.com/fieldcare</a></td>
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<tr>
<td></td>
<td><a href="http://www.mx.endress.com">www.mx.endress.com</a></td>
</tr>
</tbody>
</table>

Additional documentation
FieldCare (CP001S)
Field Xpert – powerful manageability

The Field Xpert instrument configurator is especially aligned with the needs and requirements of the process industry.

Field Xpert significantly reduces setup and diagnosis times of field instruments both in hazardous and non-hazardous applications. The ergonomic and robust handheld terminal is based on an industry PDA with wireless communication via Bluetooth™ or WLAN. Field Xpert is equipped with the “Device Xpert” configuration software package for commissioning, diagnosis and maintenance of all registered HART® devices as well as an envelope curve representation for Endress+Hauser level instruments according to the time-of-flight method. Further software applications may be installed.

Your benefits

- Field Xpert is a compact, flexible, and robust industrial PDA
- The Device Xpert configuration software makes Field Xpert the perfect HART® communicator for industrial applications
- Device Xpert supports technicians at the plant in their daily tasks, e.g.
  - commissioning and maintenance of field instruments
  - Field Xpert ensures fast and flexible operation through the support of special functions, e.g. envelope curves of Endress+Hauser level instruments according to the time-of-flight method

Additional information

www.us.endress.com/SFX100
www.ca.endress.com/SFX100
www.mx.endress.com

Additional documentation

Field Xpert (IN007S)
Service during the entire life cycle of your instruments

Optimizing the installed measuring and control technology and maximizing its useful life is the task of experts. Whatever you need, we support you with services, e.g. technical support available around the clock, competent field service as well as customized calibration and maintenance concepts. We offer you unique and expert support: quality, availability, response time, know-how and performance.
Endress+Hauser technical support

We realize that equipment failure can occur at any time of the day or week. Here at Endress+Hauser, we provide 24/7, 365 days of support coverage.

Our team of support engineers is here to lend support in basic setup of the instruments to more complex troubleshooting issues. We strive to provide a quick response and solution to your technical support request.

Your benefits

- The problem is diagnosed
- Down time is reduced
- We provide support cases for your request to ensure quality support and maintain a history should issues arise again

Additional information

www.us.endress.com/TechnicalSupport
www.ca.endress.com
www.mx.endress.com
Our workshop repair facilities offer more than repairs

In our workshop repair facilities, we offer not only repairs but also technical inspection, preventive maintenance, function tests and calibration to ensure that your instruments are always ready for use.

**Our services**
- Restoration of the functional efficiency of devices
- Verification of safety in measurements
- Reconstruction, device adaptation and software updates according to your requirements

**Your benefits**
- Certified test certificates according to ISO 9001
- Repair report and Endress+Hauser quality seal
- Certified and validated processes according to ISO 9001/17025
- Calibrations traceable to NIST with optional ISO 17025 accreditation available via our flow facility in Greenwood, IN and our Calibration Laboratory in LaPorte, TX.

(See “Scope of Accreditation” at www.a2la.org)

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**Additional information**
- www.us.endress.com/Repairs
- www.ca.endress.com
- www.mx.endress.com/reparacion

**Additional documentation**
Submit on-line request for return authorization:
- www.us.endress.com/factoryrepair
Wherever you need us

The Endress+Hauser team of field service experts operates worldwide to provide services to you on-site. This includes both error analysis and failure correction, on-site repair work, support in commissioning and calibration according to your requirements.

Your benefits
- Reduction of plant downtimes
- Fast response time
- Fast error analysis by specially trained staff
- Professional use of test equipment, simulators and special tools
- Detailed documentation of activities performed

Our services
- Restore instruments in case of breakdowns
- Support in measuring tasks
- Additional support for your maintenance staff
- Certified and validated processes according to ISO 9001

Additional information
www.us.endress.com/FieldService
www.ca.endress.com
www.mx.endress.com/servicios
At Endress+Hauser, we believe that Maintenance is not a cost to be minimized but a process to be optimized. To achieve this, we work with our customers to define just the right amount of maintenance required for your instruments to ensure the optimum performance of your plant.

We can offer professional support for both Endress+Hauser devices and instruments from other manufacturers.
... for your maintenance tasks

Your benefits
- You determine exactly the extent of support you require
- The necessary maintenance tasks to ensure an optimal instrument performance
- Time savings and complete control of your maintenance budget
- On the job training for plant personnel
- Technicians trained in accordance with specific industry requirements (GMP etc.)
- Preparation of extensive documentation safeguards reliable adherence to your quality requirements

Additional information
- www.us.endress.com/contracts
- www.ca.endress.com
- www.mx.endress.com/contratos

Additional documentation
- Maintenance contracts (FA021H)
Training is the key ...

Training combined with hands-on experience, to learn how to reduce costs and achieve process optimization

Technology and your working environment are continually changing. Are you and your maintenance staff keeping up with the changes? Are you faced with doing more, with less? Do you face time pressures, limited resources, the loss of experienced personnel, the hiring and training of new technical personnel?

We can help with training schools designed to teach fundamental, theoretical and practical knowledge about instrumentation and application technology, with an emphasis on service and maintenance of instrumentation. Training, combined with hands-on experience, is a powerful combination that can help you achieve process optimization, reduce operating costs and better manage your life cycle costs.

Endress+Hauser Instrumentation Schools are designed to introduce technicians to process instrumentations from reading P&IDs, to wiring, installing, commissioning and troubleshooting the basic sensing instruments and final control elements associated with today’s process control loops.

All schools use precise Endress+Hauser process instruments, but are designed to address real world instrumentation issues with an emphasis on theory and technology, that can be applied to all instrumentation.

Additional information

www.us.endress.com/training
www.ca.endress.com
www.mx.endress.com/entrenamiento
... to keeping up with today’s challenges

The Endress+Hauser sponsored Instrumentation Schools are conducted at six sites:

- **Greenwood (Indianapolis), Indiana**
  Endress+Hauser Inc.
  2350 Endress Place
  Greenwood, IN  46143

- **La Porte (Houston), Texas**
  Endress+Hauser Calibration and Service Center¹
  10057 Porter Road, Suite 100
  La Porte, TX  77571
  School in Spanish available to large groups.

- **Memphis, Tennessee**
  TriNova partnership facility¹
  4771 S. Mendenhall Road
  Memphis, TN  38141

- **Mobile, Alabama**
  TriNova partnership facility¹
  456 Civic Center Drive
  Mobile, AL  36602-2311

- **Matthews, North Carolina**
  Carotek partnership facility¹
  700 Sam Newell Road
  Matthews, NC  28106

- **Vega Alta, Puerto Rico**
  Engineered Parts & Services partnership facility¹
  Highway #2, Km 30,8, Espinosa Industrial Park
  Vega Alta, PR  00692
  NOTE: Schools are conducted in Spanish.
  English schools available to large groups.

- **Customized On-Site Training**
  If you would like to consider having this type of maintenance training conducted for a group at your facility, please call 800-642-8737. We’ll be happy to discuss your individual requirements and provide an estimate of the cost.

¹ Indicates facility equipped with a Process Training Unit for hands-on instrumentation labs.
Calibration services

Quality up, expenses down

Our experts have the know-how and the required equipment to calibrate all instrument types and brands. You may also make use of our consultation services to determine cost-optimized calibration intervals, which take the laws and regulations you have to comply with and your technical requirements into consideration. In addition, we can also develop specific SOPs for your calibration in correspondence with regulations and our general SOPs.

Your benefits
- Optimum calibration intervals and cost reduction with our Calibration Life Cycle Management™ program
- Calibration of all instrument types and brands
- From in-situ through to factory calibration complying completely with international standards
- Most modern calibration and calibration management tools facilitate the best results at low cost

Total calibration competence
Endress+Hauser performs instrument calibration across a variety of measuring principles—flow, pressure and temperature. Calibration can be performed at our calibration laboratories or at your facility via our mobile calibration labs. Endress+Hauser calibration laboratories are located at multiple locations in the US and around the globe. Due to new EPA regulations regarding Greenhouse Gas reporting, traceable calibration is more critical than ever before. Our network of highly trained service professionals, equipped with innovative mobile tools and software, is available to support your critical calibration requirements.

Additional information
- www.us.endress.com/calibration
- www.ca.endress.com
- www.mx.endress.com/calibracion

Additional documentation
- Calibration services (FA020H)
- On-site calibration services (CP988H)
- Do you have a calibration plan? (CP975H)
- Gulf Coast Calibration and Service Center (CP995H)
Accredited calibration service according to ISO 17025

Calibrations are performed in compliance with ISO 17025. A2LA accredited field and laboratory calibration services are available upon request.

**On-site calibration benefits**

- Instruments remain at their place of operation – plant availability is increased
- Brief processing time – calibration can include immediate adjustments, repairs, instrument exchanges and other maintenance work – this saves time and money
- Time saving by effective planning – depending on the plant topology, many measuring points may be calibrated without any interruption of the process in a very brief period of time

*Please refer to A2LA “Scope of Accreditation” for specific measurement capabilities by visiting www.a2la.org.

• Calibrations are conducted using standards traceable to NIST – calibration certificates meet requirements of ISO 17025

A2LA accredited for mobile or field calibration service*
Scheduled checks are implemented or existing systems examined by our trained technicians, utilizing our ultrasonic measuring system without any interruption of processes. Apart from the registration of the measured values, optional data analysis including a protocol is available.

**Your benefits**
- No process interruption required
- Cost-effective due to flexible use
- Subsequent installation without any product contact
- Simple and safe technology
- Measurement checks by trained experts
- Record and proof of measurement checks for plant documentation

We also offer ultrasonic flowmeter rentals.

**Your benefits**
- Ships out immediately from stock with assurance of “in-spec” operability
- Eliminates capital expense and spare part handling
- Includes software for fully traceable documentation of your tests and usage
- Phone support
- On-site assistance available for an additional fee

### Additional documentation

Ultrasonic flowmeter rental and services (CP019D)
Verification of flowmeters

The FieldCheck test and simulation device checks your Proline flowmeters on-site. Our experts implement all test functions directly at the plant, removal of the instrument from the pipe is not required.

A FieldCheck verification possibly extends or even skips an interval for wet calibration. In all instances in which a certification according to ISO 9000 requires frequent calibration and test cycles, the verification offers an economical alternative.

Verification can be a part of our Calibration Life Cycle Management™ program with the objective of optimizing calibration frequency and thus reducing costs.

Your benefits
- Increase in plant availability by preventive verification
- Cost-savings through the supply of test equipment
- Early recognition of possible instrument defects
- Test and examination of flowmeters directly on-site by specially trained experts
- No removal of the instrument from the pipe required
- Record and proof of verification by test result

Tools and software
- FieldCheck

Additional documentation
- On-site flowmeter verification (NL006H)
- Government conformance activities: FieldCheck enables in-situ verification of all Proline flowmeters (CS0265)
Calibration and maintenance management

CompuCal™ is a high performance software tool that meets all requirements regarding calibration management and implementation. Developed with key users and proven in use in the life science and regulated industries, CompuCal™ allows you to efficiently maintain and calibrate your on-site instrumentation. It provides the high quality demanded by your auditors, and at the same time reduces the complexity, time and costs associated with the management of calibration activities.

- Controls the maintenance and calibration schedules, issuing work orders and reports as defined by maintenance personnel
- Traceable records and freely editable acquisition sheets for special requirements, e.g. demands of authorities or supplier audits
- Offers seamless data transfer with other Endress+Hauser tools – W@M, FieldCare and W@M enterprise, allowing for quick data import from existing files

Your benefits
- Time savings due to paperless preparation and administration of the documents required for each measuring point (e.g. certificates and deviation reports according to ISO 17025, SOPs, health and safety sheets)
- Easy migration and data safety due to upgrade option for FDA 21 CFR Part 11 conformity
- Favorable initial package and economic solutions for all industries available
- Increased safety due to traceable multiuser and information management by an E-mail control system which can automatically allocate actions and tasks

Additional information
- www.us.endress.com/SCM100
- www.ca.endress.com
- www.mx.endress.com/servicios

Tools and software
- CompuCal™/CompuCal™ Plus

Additional documentation
- Calibration management CompuCal™ (CP009S)
Survey and analysis of process instrumentation

Reliably working instruments are critical for the smooth operation of process plants. The innate high reliability of field instrumentation is why these instruments were often not included in plant maintenance schedules. However, deterioration due to wear and tear can cause an unavoidable reduction in plant performance.

In addition, new laws and regulations require stricter control and frequent recalibration. Plant operators now face the challenge of finding the right balance between maintenance expenditure and cost-effectiveness. Endress+Hauser offers the concept of the Installed Base Audit to provide help in mastering these challenges. With this unique service we support you in achieving a better control of your field instrumentation and finding the right balance between expenditure and cost-effectiveness.

**Your benefits**
- Optimization of the balance between maintenance expenditure and cost-effectiveness according to production requirements
- Reduction of the complexity of existing plants through standardization
- Updating of plant documentation
- Definition of the necessary actions to achieve a higher degree of production quality and plant availability
- Compliance with legal safety requirements

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<td><a href="http://www.ca.endress.com">www.ca.endress.com</a></td>
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<td><a href="http://www.mx.endress.com">www.mx.endress.com</a></td>
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Installed Base Assistant

Powerful solutions for the management of your assets/installed base

The Endress+Hauser Installed Base Assistant represents a software aligned to the day-to-day tasks of process industry maintenance. All of the information is available everywhere and at any time in the entire company.

An open database architecture facilitates the connection to existing systems for engineering, procurement and maintenance purposes with standardized interfaces. The Installed Base Assistant is a software tool which administers all of the information of the measuring and control technology used thus offering many advantages. You save precious time as Endress+Hauser products are automatically added or updated. You can concentrate on your essential task: The assurance of smooth plant operation.

Your benefits

- Easy access to information and documentation of your assets
- Automatic availability and updating of Endress+Hauser product information:
  - Product descriptions and type information
  - Instrument-specific documentation
  - Events from the instrument life cycle
  - Information concerning product availability
  - Spare part lists
- Support of planning, implementation and documentation of all maintenance tasks
- Recommendations to optimize spare part inventory and stock reduction

The Installed Base Assistant is part of the W@M Portal and W@M Enterprise products.

Tools and software

<table>
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Additional documentation

| W@M Portal and W@M Enterprise (IN001Z) |

Additional information

| www.us.endress.com/ W@M-Portal |
| www.us.endress.com/ W@M-Enterprise |
| www.ca.endress.com/ W@M |
| www.mx.endress.com/wam |
Instrument information + documentation management

Functionality

Data

Documenting, ...

Spare parts

... analyzing, ...

Operations/Maintenance

... and managing your installed base

Plant structure and key performance indicators
W@M Portal/Enterprise

Correct information always at your fingertips

W@M Portal
As is the case with W@M Enterprise, W@M Portal provides a high-performance tool for your plant life cycle. It offers you the same benefits as W@M Enterprise, but there is one difference: W@M Portal does not require software installation. An Internet connection is all that’s needed. Simply open the Internet page https://portal.endress.com to gain access to your personal W@M Portal. Data is hosted at the Endress+Hauser computer center. Optimum data safety is guaranteed by the 128-bit encoded Internet connection and personal login with user name and password.

W@M Enterprise
The key to success is fast access to information whenever it is required. W@M Enterprise creates this precondition for the processes of engineering, procurement, installation, commissioning and operation thus offering great potential for cost reduction. W@M Enterprise provides an open and high-performance tool for your plant life cycle.

W@M Enterprise can be installed on a laptop, workstation or central server in the company network. Information concerning Endress+Hauser products may be automatically updated via an existing Internet connection. A download of new instrument data from the W@M portal guarantees that your data is always updated.
**Engineering benefit**
- Simple, central selection and sizing of instrumentation using Applicator
- Data transfer to procurement

**Procurement benefit**
- Configuration and ordering of products and spare parts at your conditions via our procurement solutions
- Preparation of product lists (favorites) with fully or partly configured products to earmark recurring products for purchase orders or spare part procurement

**Operations benefit**
- Effective service, maintain and optimize your installed base
- Complete information and documentation for all instruments (automatically for Endress+Hauser products)
- Faster plant commissioning
- Increased plant availability
- Evaluation of process criticality and reliability of products installed in the plant
- Maximum safety in processes and personnel

**W@M Portal benefits**
- W@M is hosted by Endress+Hauser* – No local installation is required
- The W@M Portal is accessible worldwide from any computer with internet access via secure login (username/password)
- 128 bit encrypted internet connection
- W@M Portal offers an easy integration into existing CMMS (Computerized Maintenance Management Software) systems
- Hosted data is safe and secure. No need to worry about data backup
- Software version is always up to date

**W@M Enterprise benefits**
- W@M is available through a local client/server installation at your site
- W@M Enterprise automatically connects to Endress+Hauser servers for data download (pictures, product availability information, spare parts, etc.)
- W@M Enterprise replicates with W@M Portal: newly purchased instruments and service or repair events are added automatically
- Your sensitive third party device data is only stored locally, Endress+Hauser data is stored locally and remotely.

*Endress+Hauser is a certified SAP Hosting partner. W@M is built on SAP NetWeaver® technology
SAP NetWeaver is a registered trademark of SAP AG in Germany and in several other countries.

**Tools and software**
- W@M Portal (https://portal.endress.com)
- W@M Enterprise

**Additional information**
- www.us.endress.com/W@M-Portal
- www.us.endress.com/W@M-Enterprise
- www.ca.endress.com/W@M
- www.mx.endress.com/wam

**Additional documentation**
- W@M Portal and W@M Enterprise (IN001Z)
- W@M - Life Cycle Management (CP001Z)
Quick online access via homepage

You can download or order this brochure and all of the documentation listed in it on the Internet under www.us.endress.com/ServicesPortfolio
Quick online access

**Applicator**
Online product selection guide
www.us.endress.com/applicator
www.ca.endress.com/applicator
www.mx.endress.com/applicator

**Spare parts**
Online search
www.us.endress.com/spareparts_consumables
www.ca.endress.com
www.mx.endress.com

**Serial number search**
Quick access to specific instrument details
www.us.endress.com/DeviceViewer
www.ca.endress.com
www.mx.endress.com

**Return**
Return an item to the factory for Repair or Calibration
www.us.endress.com/factoryrepair
www.ca.endress.com
www.mx.endress.com/reparacion

**E-direct**
Select product program:
Unsophisticated products at a low price
www.e-direct.us
www.ca.endress.com

**Order Tracking**
Online delivery status
www.us.endress.com/ordertracking
www.ca.endress.com/ordertracking
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<td>Sales, consultation and spare parts</td>
<td>800-642-8737 /</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1131</td>
</tr>
<tr>
<td></td>
<td>Option #4</td>
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<tr>
<td>Commissioning, calibration and field  service</td>
<td>800-642-8737 /</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1145</td>
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<tr>
<td>Technical support for instrumentation</td>
<td>800-642-8737 /</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1123</td>
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<tr>
<td>Instrument repair and laboratory</td>
<td>800-642-8737 /</td>
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<tr>
<td>Training and seminars</td>
<td>800-642-8737 /</td>
<td>866-887-1666</td>
<td>+52 55 5321-2080 Ext. 1153</td>
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