

## Process Training University

Learn how to select, apply and enhance the performance of measurement instrumentation



# The complete training experience

On-line, on-site and at the PTU®

Today, more and more professionals in the process control industry are looking for quality training to help them with their daily responsibilities. The requirements for higher productivity are ever-increasing. More and more companies are faced with an experienced workforce of operators and technicians that will be retiring in the coming years, and are needing to train their next generation of employees. At Endress+Hauser, we have solutions.

We offer a unique training experience that can meet the ever increasing demands our customers face. What have we done differently than any other company? At Endress+Hauser, we have made investments to be sure we become the clear leader and number one instrumentation training provider in the industry.

Endress+Hauser, known for process control instrumentation and the solutions and services offered around those instruments, has been manufacturing instrumentation for over 60 years. We have taken that experience of instruments and the industries we serve and built it into training that helps our customers get the hands-on experience and knowledge they need.

Our training packages are not merely limited to classroom and laboratory experiences, but have been broadened to include on-line training and on-site training as well. We can even help you design a blended approach.

## Process Training University

### Platinum

- Training solution developed according to customer requirement

### Gold

- Hands-on Training at PTU® (Process Training Unit) - "standard or customized courses"

### Silver

- Hands-on Class Room Training - On-site

### Bronze

- Process Training University On-Line

### Blue

- On-line Technical Support Videos (Free)



View our Technical Support videos:

[www.us.endress.com/howto](http://www.us.endress.com/howto)



# Classroom offerings

## Customized for your every need

Our process instrumentation schools are designed to teach fundamental, theoretical and practical knowledge about instrumentation and application technology - with an emphasis on service and maintenance of instrumentation. Each course contains a balanced mix of lecture, discussion and opportunities to take a hands-on approach to learning. Hands-on learning is facilitated by working instruments as demonstration units on the bench, in actual working conditions installed in a PTU® (Process Training Unit) or in portable training stands designed to simulate actual operating conditions. All instructors are seasoned professionals with years of real-world experience in measurement.

### Standard Courses\*

#### Introduction to Instrumentation

- Basic Instrumentation School: Course# I-101
- Instrumentation Technology School: Course# I-102

#### Analytical Instrumentation

- pH & Conductivity Measurement School: Course# A-101
- Liquid Analytical Measurement School: Course# A-102

#### Flow Instrumentation

- Coriolis Flow Fundamentals: Course# F-100
- Flow School 1 (Introductory): Course# F-101
- Flow School 2 (Advanced): Course# F-102
- Coriolis Flow School 3: Course# F-103

#### Level Instrumentation

- Radar Level Fundamentals: Course# L-100
- Level School 1 (Introductory): Course# L-101
- Level School 2 (Advanced): Course# L-102
- Time of Flight School (ToF): Course# L-103
- Free Space & Guided Radar School: Course# L-104

#### Pressure & Temperature Instrumentation

- Pressure & Temperature School: Course# P-101

#### Communications

- Profibus® PA Training: Course# C-200
- Certified PROFIBUS® PA Engineer Training: Course# C-201
- FieldCare Plant Asset Management Training (FDT): Course# 203
- Basic Industrial Ethernet Technology Training: Course# C-204

\*Visit [www.us.endress.com/training](http://www.us.endress.com/training) to view full course descriptions, schedules and pricing, or to download our course catalog (CP00969H). You can also go directly to course page by typing the course number at the end of the URL (e.g. [www.us.endress.com/F101](http://www.us.endress.com/F101)).

### Customized Courses

Our training schools are not limited to our course catalog. If you would like to consider having customized training for your staff, we are happy to discuss your individual needs and provide an estimate of the cost. The process is simple...

- Complete and submit the brief Online Request form available at [www.us.endress.com/silver-training](http://www.us.endress.com/silver-training).

OR

- Call Service Coordination at **888-363-7377** to make a request by phone

OR

- Ask your **Endress+Hauser salesperson** about Customized Customer Training so that they can provide consultation, understand your specific needs and create the ideal, custom-designed training package



**Professional Development Hours (PDH)** are available with all courses and noted on certificates of completion.



**Register now! Visit [www.us.endress.com/training](http://www.us.endress.com/training), call 888-363-7377 (888-ENDRESS) or scan QR code**

# Welcome to the Endress+Hauser PTU

Process instrumentation training facility



**BridgeValley Community  
College Campus**  
South Charleston, WV



**Carotek Charlotte Campus**  
Matthews, NC



**Eastern Controls  
Philadelphia Campus**  
Edgemont, PA





### Endress+Hauser Greenwood Campus Greenwood, IN

The PTU<sup>®</sup> pictured here (located at our Greenwood, IN Campus) is integrated with a Rockwell Automation PlantPAx process automation system, giving customers a unique experience.



## Why is training essential today in the process industries?

Technology and the marketplace are changing rapidly. Are you and your maintenance staff keeping up with the changes?

Our instrumentation training will significantly help your maintenance and engineering staff learn the latest technology for dealing with maintenance issues that may arise, whether they are newly hired or have years of experience.

We specialize in offering a variety of training solutions, including opportunities to experience hands-on training, specifically with a PTU<sup>®</sup> (Process Training Unit). We have PTUs at several campus locations across the United States (listed below).



### PTU<sup>®</sup> video

See the video on-line at  
[www.us.endress.com/training](http://www.us.endress.com/training)



### Endress+Hauser Gulf Coast Calibration Center La Porte, TX



### George E. Booth Company Chicago Campus Chicago, IL



### TriNova Baton Rouge Campus Gonzales, LA



# PTU® - Process Training Unit

Training, combined with hands-on experience, is a powerful combination that will help you better manager your life cycle costs

What makes Endress+Hauser unique is our PTU® (Process Training Unit) network. PTUs are full scale, working process skids with on-line instrumentation and controls. Customers gain hands-on experience with the types of operation, diagnostics and troubleshooting found in real-life process plants. This goes beyond what classroom-only style training can provide.

These fully functional “mini process plants” feature Endress+Hauser instruments integrated with the PlantPax process automation system from Rockwell Automation. They are designed for the purpose of educating field technicians and engineers by providing a unique learning experience through real-life simulations and hands-on experience.

Participants learn the application, installation, operation and diagnostic procedures related to many types of process instrumentation and control processes. Various communication protocols are fully operational, including: EtherNet/IP™, HART®, PROFIBUS® PA, and FOUNDATION™ Fieldbus.

The PTU® has a ‘wow’ factor that puts our words into action, and clearly demonstrates our investments, capabilities and synergy with Rockwell Automation.

 Experience Endress+Hauser  
[www.us.endress.com/campus-tours](http://www.us.endress.com/campus-tours)

## Visit one of our U.S. locations

Whether you are touring our state-of-the-art Production Centers or exploring one of the 10 training facilities in our PTU® (Process Training Unit) network, you will have the opportunity along the way to meet the People for Process Automation at Endress+Hauser. From Product Managers and Industry Experts, to Technical Support and Project Managers, our staff will be on hand to address your instrumentation needs and application challenges.

**Endress+Hauser**   
People for Process Automation

The Rockwell Automation PlantPax system regulates the PTU® by actuating control valves and adjusting the speed of pump drives. It also provides operators with a real time view of the process and continuous monitoring of critical parameters.

The goal of our strategic alliance partnership with Rockwell Automation is to create tangible customer value by complementing each other’s strengths. Interoperability is a given and preferred integration is the goal.

To view our integration documents, which provide a step-by-step approach to integrating a field instrument into a Rockwell Automation system, please visit:  
[www.us.endress.com/rockwell](http://www.us.endress.com/rockwell)



 Find out more about our PTUs!

**Rockwell  
Automation**

 **TriNova Memphis Campus**  
Memphis, TN



 **TriNova Mobile Campus**  
Mobile, AL



 **TriNova/Polk State  
College Campus**  
Central Florida



# Hands-on makes all the difference

## An unrivaled learning experience

Nowhere else can you go for training and have access to so many different types of devices in one location.\*

### Multiple measuring technologies for learning

- **Flow** - Electromagnetic, Vortex, Coriolis Mass Flow, Ultrasonic, D/P Flow, Thermal Mass Flow
- **Level** - Capacitance, Vibration, Ultrasonic, Hydrostatic, Radar, Guided Radar, D/P Level, Electronic D/P, Tank Gauging (Greenwood only), Gamma (Greenwood only)
- **Pressure** - Gauge/Absolute, Differential Pressure, Hydrostatic
- **Temperature** - Temperature Transmitter, RTDs and Thermocouples, Sensors
- **Gas Analysis** - Laser-Based Gas-Phase Process Analyzers, Raman Spectroscopy
- **Liquid Analysis** - Conductivity, pH/ORP, Chlorine, Dissolved Oxygen, Turbidity, Chemical Analyzers
- **Recorders & Components** - Paperless Recorders, Visual Data Managers, Displays, Power Supplies
- **Solutions** - Wireless Networks, Life Cycle Management, Plant Asset Management, Calibration Management
- **Controls** - PLC programming, PID analysis, loop tuning, Process Control fundamentals

\*Instrumentation may vary slightly from location to location

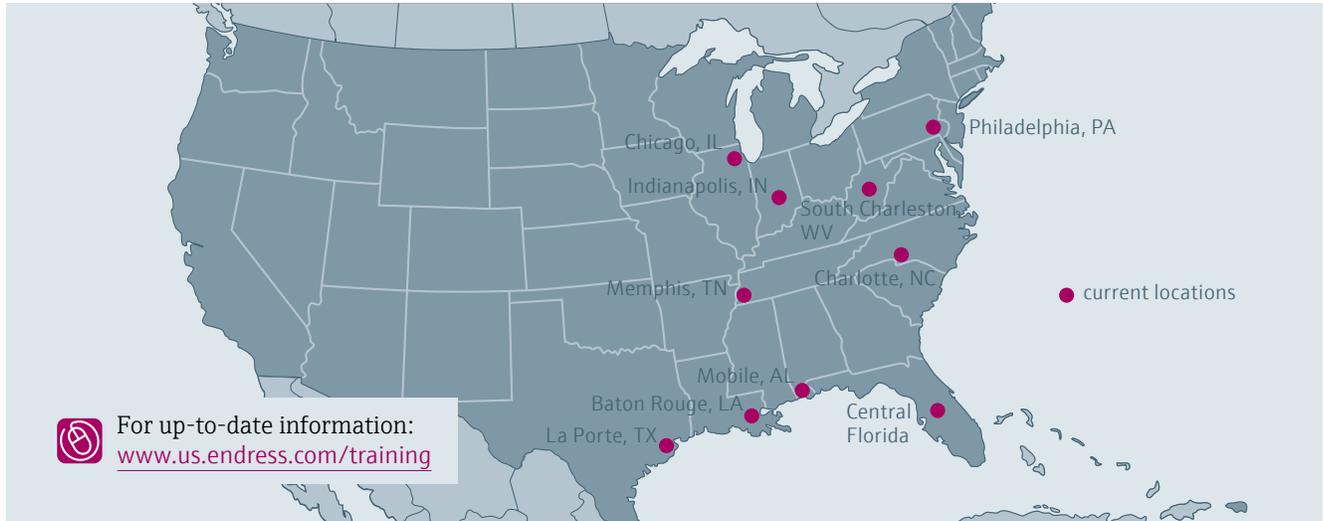


### ✓ Inspiring engineers and filling the skills gap

Annually, Endress+Hauser hosts a Community Career+Education Forum in Greenwood, Indiana utilizing its PTU® as a focal point to educate middle school aged students, parents and the community on what manufacturing looks like today, the importance of STEM (science, technology, engineering and mathematics) education and to help further develop and inspire future engineers and technicians in the workforce. In 2015, students (over 350), parents, educators and manufacturing professionals visited Endress+Hauser's state-of-the-art Customer Center for a fun and interactive look into the types of careers and opportunities available in advanced manufacturing today.



## Process Training University Campus Network



Give us your feedback:  
[www.endresslistens.com](http://www.endresslistens.com)



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### Other locations

[www.addresses.endress.com](http://www.addresses.endress.com)