MEASUREMENTASIA

Room 1: Industrial Process Calibration

SYNOPSIS

Industrial Process calibration is very critical in all process plants. To ensure the control system work within control limits, all the sensors must be well calibrated and within the required operating range. Sensors are used for process control and also to ensure safety, therefore they must be able to trigger when the process falls into some critical conditions.

In process control, there are Electrical Control, Temperature Control and Pressure Control system. Fluke Process Solution Expert, Jim Shield will take this opportunity to share the best practices and how we can better the maintain various process control systems.

In addition, Jim will also cover Hart Transmitter calibration and how can documenting process calibrators that helps to make site calibration easy and efficient.

AGENDA

09:00 – 10:30 น.

Part 1: "Electrical Session"

Process Control loops have well defined configurations and are usually consistent regardless of what the process variable the transmitter in the circuit is measuring.

There are several specialty tools that when used as intended can facilitate the testing and troubleshooting of this DC series circuit.

In this section of the Seminar, the mA loop calibrator functions of a Process Meter will be utilized to test and troubleshoot the components in the 4-20 mA loop.

Testing 4-20 mA input control valves pneumatic control valves will also be discussed.

10:45 – 12:00 น.

Part 2: "Temperature Session"

Temperature measurement loops are one of the most tested control loops in process facilities. How temperature is measured (sensed) will be discussed.

There will be demonstration on sensor testing, transmitter testing and testing full loops. Documented temperature calibrations for paperless asset management will also be reviewed.

13:00 – 14:30 น.

Part 3: "Pressure Session"

Pressure loops are also tested regularly in process facilities. Different types of pressure measurement tools will be discussed. Different methods to generate test pressures will be reviewed and demonstrated.

Pressure transmitters and switch tests will be demonstrated using multiple methods. Documented pressure calibrations for paperless asset management will also be reviewed.

14:45 – 16:00 น.

Part 4: "HART Utilities in Documenting Calibrators for configuration and diagnostics"

The HART function in Documenting Calibrators is often utilized. In this session configuration and commissioning of a HART pressure and temperature Transmitter will be demonstrated.

Speaker: Mr. Jim Shields – Product Manager, Process Calibration Tools, Fluke Corporation

Jim Shields is the Product Manager for the Process Calibration group for the Fluke Corporation. Jim has been active in the ISA and education and has actively supported and developed instrumentation curriculum. Jim has delivered instrumentation train the trainer classes (instructor training) for the last 20 years to the USA Electrical trades for the USA IBEW (International Brotherhood of Electrical Worked) at the National Training Institute annual training event. Jim has worked in the field of calibration and metrology, field and bench for over 45 years.

Room 2: Precision Calibration – What, How, Why.

SYNOPSIS

Precision measurement is critical for many processes in a wide variety of industries. Pressure and flow measurements and their related equipment are commonly found in operation within many critical industries throughout Southeast Asia. Ensuring accurate information from pressure and flow sensors for product quality and safety of operations are important.

There are many various pressure and flow measurement tools used at production/process sites globally, to ensure these tools are making accurate measurements, routine testing and calibration is required. Fluke Corporation manufactures many different types of precision calibrators to support the needs of these facilities.

In this seminar Fluke Calibration expert, Mr. Karl Kurtz, will introduce to you concepts related to pressure and flow calibration, selection criteria for calibrators and best practices. He will also focus on aspects of the decision and operating process.

The key takeaway from this Seminar will be what needs to be considered for Pressure and Flow calibration, how to make decisions and what influences our results.

AGENDA

09:00 – 10:30 น.

Part 1: "Introduction – Why is calibration important / How to select a calibrator"

An introduction to pressure and flow calibration. Understanding why it is important and what the consequences of making both good and bad measurements. There are many different calibrators available to users with a wide range of capabilities, features, and costs. We look at one process to help us select the best calibrator to meet the requirements of the instrument we are calibrating or testing.

10:45 – 12:00 น.

Part 2: "Understanding Pressure – The Physics: P101 course"

The physics of pressure. It's not just the equipment. Understanding why the physical world impacts our measurements.

13:00 – 14:30 น.

Part 3: "Understanding Gas Flow – The Physics: F101 course?"

The physics of gas flow. Understanding the difference between volume and mass flow. Identifying the things which affect flow measurements.

14:45 – 16:00 น.

Part 4: "Why are Precision Pressure and Gas Flow measurements so difficult?"

Many things impact high accuracy measurements, many of which are not related to the instruments involved in the measurement. We will look at the everyday items which can negatively affect your results.

Speaker: Mr. Karl Kurtz – Product Sales, Service Training Manager – APAC Region, Fluke Corporation

Karl Kurtz is the Product Manager for Fluke's Pressure and Flow Calibration products. Karl is a member of Fluke's Asia Pacific organization and is located in Phoenix, Arizona, USA.

Karl started his career with DH Instruments, Inc. in 1981 and held several key positions including Metrology Laboratory Manager, Technical Service Manager, Training Instructor/Manager and others. Karl moved to technical sales in 1991 and assumed sales, service and training responsibilities for the Asia/Pacific region in 1995. DH Instruments was acquired by Fluke Corporation in 2007 and maintained the same responsibilities within Fluke. In 2021, Karl was moved to Fluke's APAC organization reporting through Fluke's Southeast Asia team. Karl is focused on assisting Fluke's various regional organizations, local distributors and customers.

Karl has worked closely with nearly every NMI in the region, especially with NIMT to provide products, services and training on critical metrology needs related to both pressure and flow.