

## Recommended petrochemical solutions

### Multifunction Calibrators

#### Best suited for:

- Troubleshooting and calibrating current loop applications using the functionality of a loop calibrator and digital multimeter built into one tool
- Accurate temperature measurement
- Calibration and maintenance of process instrumentation and control systems
- Sourcing, measuring and documenting virtually any process variable

#### Petrochemical applications:

Measure, source, and simulate dc loop current  
Regulating quality or custody transfer processes  
Pressure and temperature transmitter calibration; calibration and configuration of HART devices; documenting field calibrations for recall and upload.

### Temperature calibrators

#### Best suited for:

- Troubleshooting and calibrating temperature
- Testing temperature sensors and transmitters
- Measuring and sourcing thermocouples and RTDs, plus volts and ohms

#### Petrochemical applications:

Measure thermocouples, ohms, and volts to test sensors and transmitters by sourcing/simulating thermocouples, RTDs, volts and ohms; executing remote tests with auto step and auto ramp; powering transmitters during test using loop power supply with simultaneous mA measurement; calibrating linear TC transmitter; calibrating thermal imagers and infrared thermometers

### HART smart instrument calibrators

#### Best suited for:

- Documenting the performance of critical HART smart instruments
- Trimming the Sensor of a HART smart temperature or pressure transmitter
- Trim the mA output of a HART smart device
- Re-range the LRV and URV of a HART smart device
- View configured HART variables
- Set transmitter mA output to a fixed value
- Log mA measurements over time
- Simultaneously Log mA signals, PV, SV, TC and QV over time
- Set tag number and configure temperature sensor

#### Petrochemical applications:

Tools that are specifically enabled to test troubleshoot and calibrate HART smart transmitters. Use the model Fluke 754 to document HART instrument calibration performance for upload to a CMS (Calibration Management Software) system like Fluke DPTRACK2 or others software packages. With the 709H you can perform all the loop troubleshooting and testing needed to optimize the performance of a HART smart device. With the 754 you can do this as well as source or simulate almost any transmitter input signals to test the entire transmitter.

## More recommended petrochemical solutions

### Baths and dry-wells

#### Best suited for:

- Calibration of dial thermometers
- Calibration of RTDs and thermocouples
- RTD and thermocouple calibration check
- Temperature controller loop calibration
- Temperature transmitter and sensor combined calibration
- Temperature switch test

#### Petrochemical applications:

Provides a stable reference temperature for comparing temperature measuring equipment against a standard of higher accuracy to detect and correct errors in the device being tested.

### Precision thermometers and probes

#### Best suited for:

- Contact temperature measurement in fluids
- Contact temperature measurement in thermowells and test wells for in situ comparisons with controllers, displays, and gauges.
- Use as an external reference thermometer to improve calibration accuracy
- Logging temperatures

#### Petrochemical applications:

Provides a more accurate reference temperature for checking and calibrating temperature measurement equipment. Use to detect errors in other instruments to simply to determine temperature precisely. Intrinsically safe models such as the 1551 Ex may be used in potentially explosive atmospheres.

### Deadweight testers and pressure controller calibrators

#### Best suited for:

- Calibration of pressure transmitters, gauges and switches
- Maintenance of almost any pressure device using pressure sourcing and milliamp measurements
- Calibrating P/I instruments with simultaneous pressure and current measurement

#### Petrochemical applications:

Pressure measurements using internal sensor; measure mA while sourcing. Precise manual or automatic pressure control. Ensuring safety of pressure containment vessels.

### Pressure calibrators

#### Best suited for:

- Pressure calibration of transmitters, gauges and switches
- Testing of downhole pressure measurement tools
- Maintenance of almost any pressure device using pressure sourcing and milliamp measurements
- Calibrating P/I instruments with simultaneous pressure and current measurement

#### Petrochemical applications:

Pressure measurements using internal sensor; measure mA while sourcing. Precise manual or automatic pressure control.  
Support of remote drilling and exploration operations.

### mA Process clamp meters

#### Best suited for:

- Measuring 4 to 20 mA signals without breaking the loop
- Sourcing, simulating and measuring mA
- Sourcing, measuring DC voltage

#### Petrochemical applications:

mA sourcing, simulation and measurement; loop calibration, maintenance and repair

### Gas flow calibrators

#### Best suited for:

- Calibration of mass flow controllers and meters
- Calibration of rotameters

#### Petrochemical applications:

Pilot plant process development and support

## For more information

Find useful application notes, case studies, and posters for the petrochemical industry at [www.fluke.com/petrochem](http://www.fluke.com/petrochem).



North American rating			
Division	European ATEX	Zone 1	Zone 2
Zone 0	Zone 1	Zone 1	Zone 2
100% Non-hazardous	100% Non-hazardous	100% Non-hazardous	100% Non-hazardous

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## Petrochemical industry calibration solutions

Petrochemical manufacturing can be a tough and unforgiving environment. Whether you're ensuring regulatory compliance, performing preventative maintenance, or testing equipment, you need high-quality, cost-effective products that don't sacrifice safety or uptime.

With Process Calibration solutions from Fluke and Fluke Calibration for electrical, multifunction, mA loop, temperature, pressure and flow applications, you can find the right tools for the challenges you face every day.

### Regulatory/ Safety officer

**Focus: testing, maintenance and repair of equipment and systems**

**What issues do you face?**

- Downtime prevention
- Safety systems testing
- Troubleshooting process interruption with immediate response and repair

**Fluke solutions:**

- Multifunction Tools
- ⬆️ Pressure calibrators
- ↔️ Flow calibrators
- Temperature calibrators

### Instrument Technician

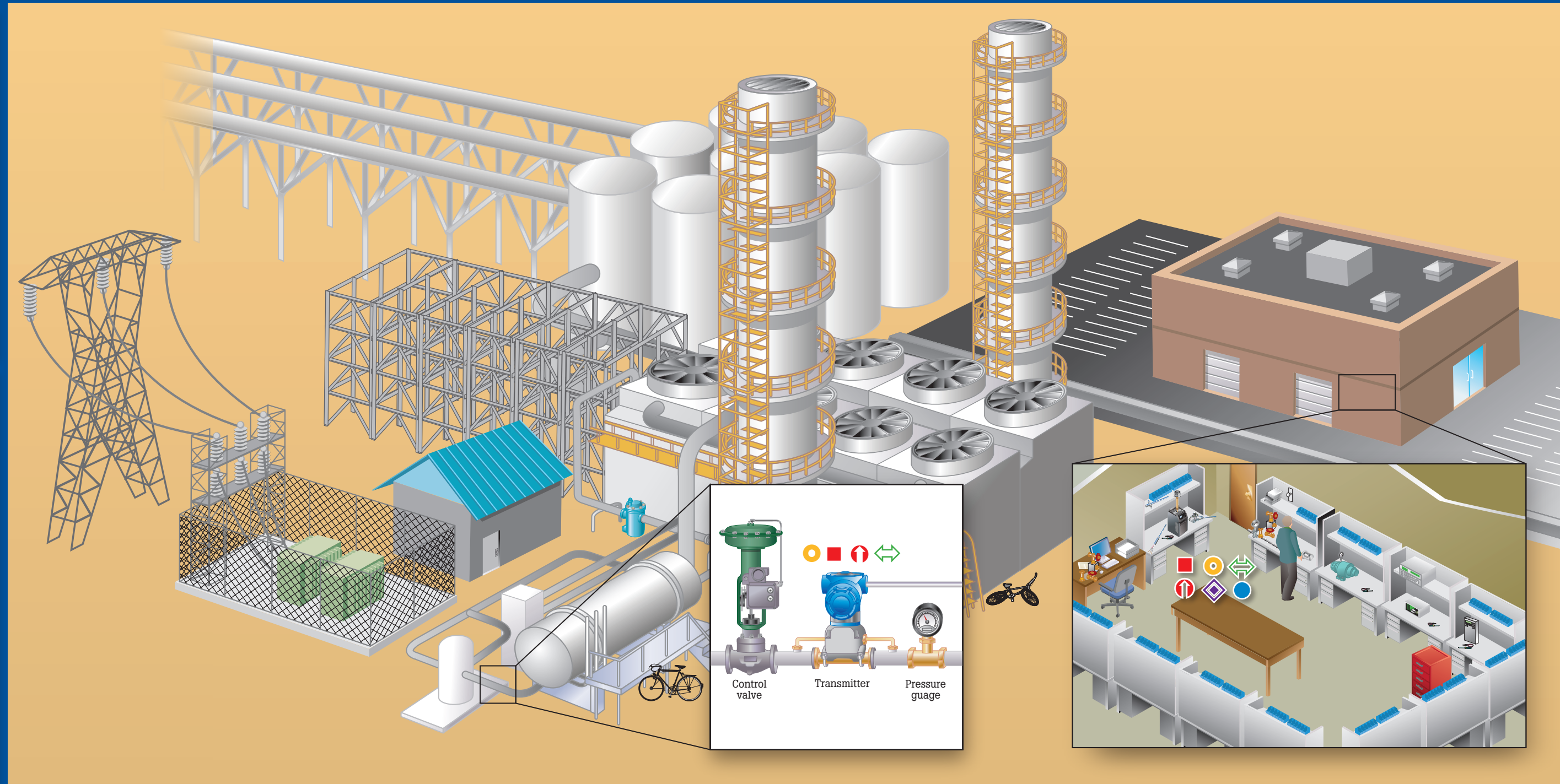
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- Multifunction Tools
- HART smart instrument calibrators
- ⬆️ Pressure calibrators
- ↔️ Flow calibrators
- Temperature calibrators
- ◇ Baths and dry-wells



### Quality manager

**Focus: maintaining and documenting product quality**

**What issues do you face?**

- Complying with quality regulations
- Maintaining documentation of processes

**Fluke solutions:**

- Temperature calibrators
- ⬆️ Pressure calibrators
- ↔️ Flow calibrators
- Multifunction calibration tools
- ◇ Baths and dry-wells

### Engineer

**Focus: process design and improvement**

**What issues do you face?**

- Specifying equipment to meet regulations and requirements
- Preventing downtime

**Fluke solutions:**

- Temperature calibrators
- ⬆️ Pressure calibrators
- ↔️ Flow calibrators
- Multifunction calibration tools
- ◇ Baths and dry-wells

### Industrial calibration technician

**Focus: calibrating measurement devices**

**What issues do you face?**

- Making accurate measurements
- Documenting procedures
- Increasing throughput

**Fluke solutions:**

- Temperature calibrators
- ⬆️ Pressure calibrators
- ↔️ Flow calibrators
- Multifunction calibration tools
- ◇ Baths and dry-wells

*Diagram is not intended to be an exact representation. Diagram components are not to scale and are for illustration purposes only.*

## Fluke petrochemical solutions

Learn how Fluke solutions can save you time and money while increasing your productivity at [www.fluke.com/petrochem](http://www.fluke.com/petrochem).  
Based on you. Built by Fluke.

Multi-function and loop tools							Temperature calibration tools					Pressure calibration tools					Electrical calibration	Software		
mA loop calibrators			Multifunction calibrators				Baths and dry-wells		Infrared thermometer calibrator	Precision thermometers and probes		Handheld pressure calibrators		Pressure gauges and comparison test pumps		Deadweight testers		Bench pressure controller/calibrator	Precision multimeter	Software solutions
709H Precision HART Loop Calibrator	715 Volt/mA Calibrator	707 Loop Calibrator	726 Precision multifunction calibrator	754 Documenting Process Calibrator-HART	789 ProcessMeter™ with 250 Ohm HART resistor	7526A Precision Process Calibrator	7102 Micro-Bath Thermometer Calibrators	914X Field Metrology Wells (temp and mA Loop)	418X Precision Infrared Calibrators (temp)	1523/1524 Handheld Thermometer Readout (temp)	1551A Ex and 1552A Ex "Stik" Thermometer Readout	700P Differential Pressure Modules	719 Portable Electric Pressure Calibrator	700G Precision Pressure Gauge Calibrator	P5515 Comparison Test Pumps	P3100 Hydraulic Deadweight Testers	E-DWT-H Electronic Deadweight Tester	PPC4E Pressure Controller/Calibrator	8845A/8846A 6.5 Digit Precision Multimeters	750 SW DPC/TRACK2 Software