

# Fluke tools are designed to keep you safe in dangerous environments



Fluke's intrinsically safe tools can be used to help you perform maintenance and calibration tasks in potentially explosive and hazardous areas. Learn about the importance of intrinsic safety on the job and the industries that use intrinsically safe tools.

Fluke offers a wide range of reliable, accurate and intrinsically safe tools. Including the **NEW 28II Ex True-rms Multimeter** and the **NEW Fluke 568 Ex Infrared Thermometer**, which compliments the line of Fluke intrinsically safe field calibrators.



Fluke 725Ex  
Multifunction  
Process Calibrator



Fluke 28II Ex  
True-rms Industrial  
Multimeter



Fluke 718Ex  
Pressure  
Calibrator



Fluke 707Ex  
Loop Calibrator



Fluke 700PEX  
Pressure Modules



Fluke 568 Ex  
Infrared



700G Series  
Precision Pressure



1551/1552 "Stik"  
Thermometers

# Fluke Intrinsically Safe products help to keep you safe on the job

“Intrinsically Safe” or I.S. is a protection method employed in potentially explosive atmospheres. Certified I.S. tools are designed to prevent the release of sufficient energy to cause ignition of flammable material. I.S. standards apply to all equipment that can create one or more of a range of defined potential explosion sources:

- Electrical sparks
- Electrical arcs
- Flames
- Hot surfaces
- Static electricity
- Electromagnetic radiation
- Chemical reactions
- Mechanical impact
- Mechanical friction
- Compression ignition
- Acoustic energy
- Ionizing radiation

Industries that use or should use I.S. tools include:

- Petro-chemical
- Oil platforms and refineries
- Pharmaceutical
- Pipelines
- Any environment where explosive gases or vapors could be present

## Fluke 700PEX Pressure Modules

Best suited for:



- Use with the Fluke 725Ex Multifunctional Process Calibrator and Fluke 718Ex Pressure Calibrator to cover the most commonly used pressure calibration ranges from 0-25 mbar up to 0-200 bar

Features:

- I.S. Class I Div 1 Groups A-D T4, Ta = 0 °C to +50 °C
- ATEX II 1G Ex ia IIC T4 compliant
- Very high accuracy up to 0.025 %



## 1551/1552 “Stik” Thermometers

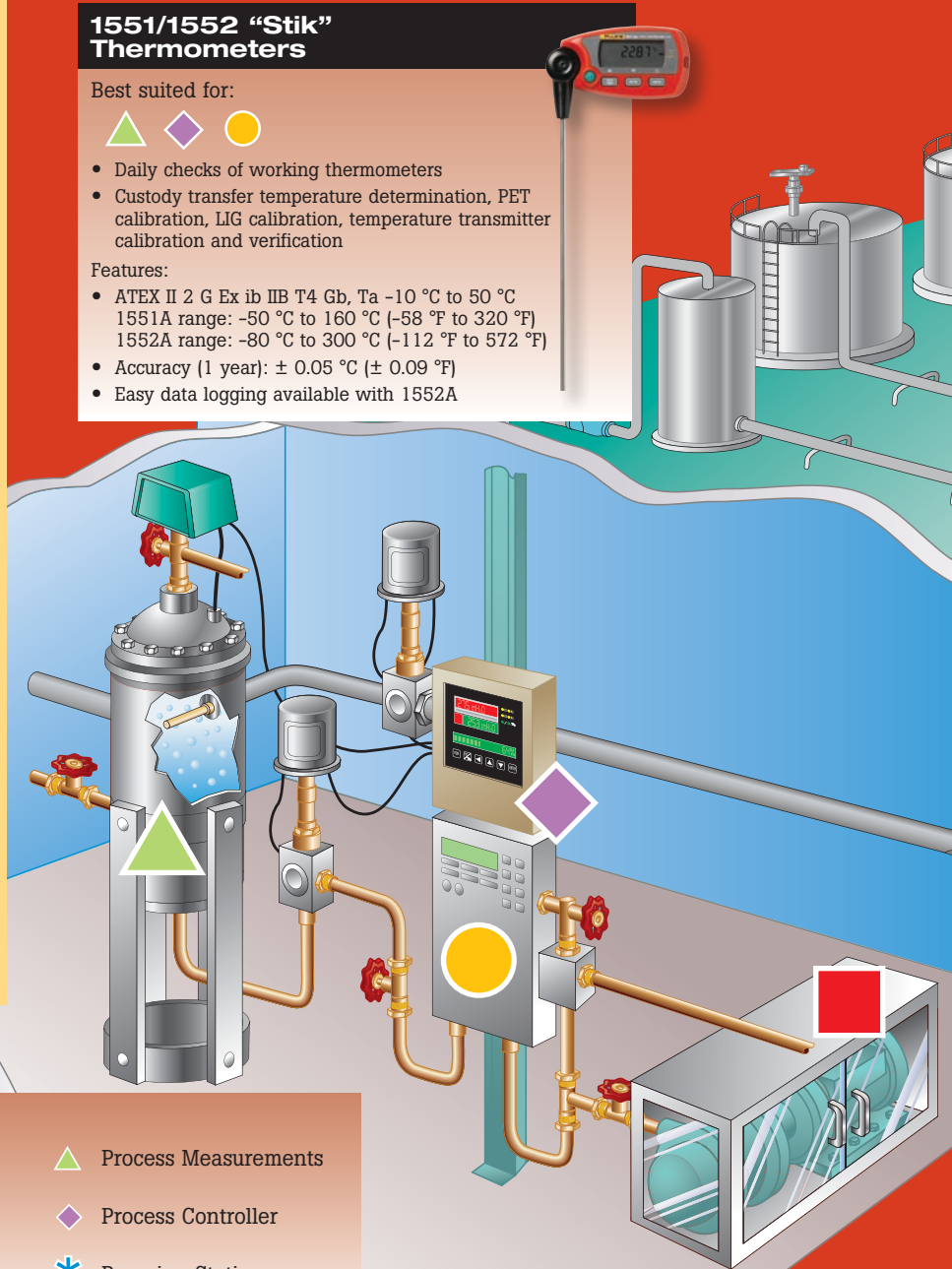
Best suited for:



- Daily checks of working thermometers
- Custody transfer temperature determination, PET calibration, LIG calibration, temperature transmitter calibration and verification

Features:

- ATEX II 2 G Ex ib IIB T4 Gb, Ta -10 °C to 50 °C
- 1551A range: -50 °C to 160 °C (-58 °F to 320 °F)
- 1552A range: -80 °C to 300 °C (-112 °F to 572 °F)
- Accuracy (1 year): ± 0.05 °C (± 0.09 °F)
- Easy data logging available with 1552A



### Legend

- Motor Control Center
- ▲ Process Measurements
- Flow Computer
- ◆ Process Controller
- ★ Tank Farm
- \* Pumping Station

## Fluke 725Ex Multifunction Process Calibrator

Best suited for:



- Calibrating virtually any process parameter

Features:

- Class I Div 1 Groups B-D 171 °C
- ATEX II IG Ex ia IIB 171 °C Compliant
- Measure, source or simulate volts dc, mA, RTDs, thermocouples, frequency and ohms
- 2-channel simultaneous source and measure capability for calibration of transmitters
- Internal loop supply to power transmitters
- Store frequently-used test setups for later use
- Pressure measurement to 200 bar and pressure switch test using any of the 8 Fluke 700PEX pressure modules



## Fluke 568 Ex Intrinsically Safe Infrared Thermometer

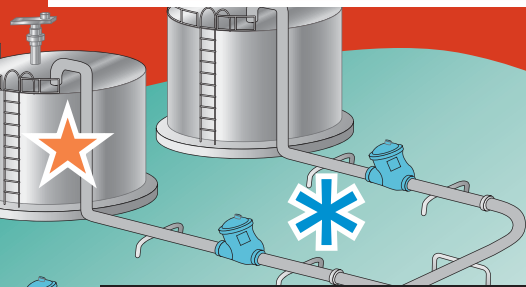
Best suited for:



- Taking spot, differential or scanning temperature measurements in any environment where flammable gases or vapors may be present

Features:

- Class I Div 1 and Div 2 or Zone 1 and 2 hazardous environments
- ATEX/IECEX, NEC-500/NEC-505, PCEC, INMETRO certified
- Enhanced 50:1 distance to spot ratio allows user to measure smaller objects from farther away
- Comfortable pistol grip makes target pointing an easy job
- Backlit display for poorly lit areas
- Displays Min/Max/DIF/AVG measurements and saves in memory
- Adjustable emissivity setting for more accurate measurements
- Log up to 99 measurements
- Compatible with mini-connector K-type thermocouple (KTC) probe



## 700G Series Precision Pressure Test Gauges

Best suited for:



- Precision pressure measurement from 0 inH<sub>2</sub>O/20 mbar to 10,000 psi/690 bar and absolute pressure measurement

Features:

- CSA; Class 1, Div 2, Groups A-D rating
- ATEX rating: II 3 G Ex nA IIB T6
- Accuracy to 0.05 % of full scale
- Reference class gauge accuracies to 0.04 % of reading
- Log up to 8,493 pressure measurements to memory



## Fluke 718Ex Pressure Calibrator

Best suited for:



- Pressure measurements and calibration with internal sensor at pressure ranges of 2, 7 and 20 bar

Features:

- Class I Div 1 Groups A-D T4 Compliant
- ATEX II IG Ex ia IIC T4 compliant
- Built-in pressure/vacuum hand pump, with vernier and bleed valve
- Pressure measurement to 200 bar using any of the 8 Fluke 700PEX Pressure Modules
- Pressure measurement to 0.05 % of full span using internal pressure sensor
- Pressure switch test function



## Fluke 707Ex Loop Calibrator

Best suited for:



- Calibration and maintenance of 4 to 20 mA control loop

Features:

- F.M. Class I Div 2 Groups A-D T4
- ATEX II 2G Ex ia IIC T4 compliant
- Large display and simple, quick-click push/rotary button for easy one-handed operation
- Simultaneous mA and % readout for quick, easy interpretation of readings
- mA accuracy of 0.015 %, superior to other loop calibrators
- Pushbutton with 25 % steps for fast, easy linearity checks
- 0 and 100 % 'span check' for fast confirmation of zero and span



## Fluke 28II Ex True-rms Industrial Multimeter

Best suited for:



- Solving problems on motor drives, in plant automation, power distribution and electromechanical equipment

Features:

- Class I Div 1 Groups A-D
- ATEX II 2 G Ex ia IIC T4 Gb
- ATEX II 2 D Ex ia IIIC T130C Db
- ATEX I M1 Ex ia I Ma
- Low voltage troubleshooting in hazardous areas
- Built-in thermometer allows you to take temperature readings
- Large digit display with bright, two-level
- IP67 rated, waterproof and dustproof




# Making sense of the product rating systems

Each approved intrinsically safe device is rated to ATEX, NEC, FM or other country standards. The corresponding rating system allows you to understand which zones, type of protection, gas groups and temperature classes the instrument is approved for.

## ATEX Example


Fluke 707Ex is  ATEX Compliant II 2 G Ex ia IIC T4


 The ATEX examination mark is required on all devices for use in European hazardous areas.

## ATEX Markings

<b>II 2 G</b>	The classification of zones. "II" designates the tool is approved for all non-mining areas. "2" represents the category of the device, in this case the device is rated for the second most hazardous areas. "G" designates atmosphere, in this case gas, vapors and mist.
<b>Ex</b>	Explosion protection based on European Ex-regulations.
<b>ia</b>	The type of protection from explosion, in this case the energy in a device or connector has been reduced to a safe value.
<b>IIC</b>	Gas Group. "IIC" rating indicates compatibility with the most dangerous gas groups.
<b>T4</b>	Temperature class is the maximum temperature of a surface that may be.

## FM Example

Fluke 707Ex is  APPROVED FM-classified N.I. Class I, Div 2, Groups A-D, T4

 APPROVED The Factory Mutual Approved mark.

## Factory Mutual Markings

<b>N.I.</b>	Non-incendive apparatus, internal energy is limited so a specified atmosphere cannot be ignited by its use.
<b>Class I</b>	For use with gases, vapors and liquids (not dust, fibers or filings).
<b>Div 2</b>	Certified for use in Zone 2, explosive atmospheres not normally present, may rarely exist for short duration.
<b>Groups A-D</b>	Rated for use with explosive gasses as defined by groups A-D, including acetylene, hydrogen, acetylene and propane.



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