Types 2089, 2086 & 2084 Precision Digital Test Gauge





FEATURES

- Industry Leading Accuracy
- Breakthrough Display Height
- Rugged & Portable Design
- Configurable Options Including: - Twelve Engineering Units
- Seven Languages - Adjustable Update and
- Dampen Modes
- Field Calibration Capability - Disable Mode
- Is your digital gauge as

accurate as you think?

Gauge accuracy can be dramatically impacted by changes in temperature, re-zeroing of gauges and other factors. Until now there has been no one single solution to address these concerns. The Ashcroft precision digital test gauge is that solution.

What you should know about digital test gauge accuracy..."Terminal Point" versus "Best Fit Straight Line Accuracy."

Ambient Temperature Changes

Other manufacturers of digital gauges may specify operating temperature range *without* specifying the additional error associated with changes in ambient temperature. Errors can range as high as .04%/°F. A 25°F change from an ambient of 70°F may add an additional 1% to the stated accuracy of the gauge! *The Ashcroft digital gauge with total error band ensures accuracy from 0-150°F*.

PRODUCT SPECIFICATIONS

Type: 2089 (0.05% F.S. accuracy), 2086 (0.10% F.S. accuracy), 2084 (0.25% F.S. accuracy) Accuracy: 0.05%, 0.10% or 0.25% all Full Scale, Terminal Point, Total Error Band (TEB) Including Hysteresis, Linearity, Repeatablilty and Temperature (0/150°F)

Case Size: 3"

- Case Material: 300 Series Stainless Steel
- Case Finish: Electropolished
- Case Rating: Weatherproof, IP65, NEMA 4

Case: Available with Optional Protective Rubber Boot

Wetted Parts: 316 Stainless Steel

Socket Size: ¼ NPT Male, JIS, DIN, SAE, (others on application)

Socket Location: Lower (6 o'clock) 3 and 9 o'clock
Mounting: Stem (standard), Panel (optional)
Ranges: Vac. thru 7000 psi (see engineering units below for other units of measurement) Non-cataloged available ranges on application.
Operating Temp.: 0/150°F (-18/63°C)
Storage Temp.: -40/180°F (-40/82°C)
Temp. Corrected: Yes

ASHCROF

Trust the shield."

DISPLAY

Type: LCD Display Digits: 5, 99,999 counts Character Height: .66" Backlite: Off by default Bar Graph: Yes

Battery Life: >1000 hrs. (3 AAA alkaline batteries) Agency Approvals: CE EN 50082-1 (1997), FM/CSA

approval not available on vacuum ranges and compound ranges up to 15 psi

KEYPAD FUNCTIONS

On/Off: Manually turns unit on and off (auto off options in configuration menu (CONFIG))

- Backlite: Manually turns backlite on and off (auto off options in configuration menu (CONFIG))
- Min/Max: Stores min. and max. values when displayed
- Zero/Clear: Zeros display or clears min. and max. values when displayed

Enter: Selects items in configuration menu (CONFIG)

- Configuration Mode (CONFIG): Allows scrolling through configuration menus to select available options
- Engineering Units: psi, Hg, H2O, ftSW, Bar, mBar, kPa, mPa, mmHg, cmH2O, mmH2O, kg/cm²
- Update Rate: Four Options: 10x/sec, 5x/sec, 2x/sec, 1x/sec
- Auto Off: Five Options: Never, 2 min., 5 min., 15 min., 30 min.
- **Dampening:** Five Options: None, average 2, 4, 6, 8 readings
- Language: Seven Languages: English, Spanish, French, Italian, German, Portuguese, Dutch
- Backlite: Five Options: On/off, 10 sec., 30 sec., 1 min., 5 min.

Calibrate: Zero and Span (password protected) Zero Disable: Allows for disabling of Zero button Contrast: Seven available options

- **Disable:** Allows for "lock-out" of CONFIG options **Calibration Chart:** 10 point individual calibration
 - chart, standard for Type 2089, others optional

Standard Features: 300 Series SS Protective Cover,



Types 2089, 2086 & 2084 **Precision Digital Test Gauge**

IS YOUR DIGITAL GAUGE AS ACCURATE AS YOU THINK?

Gauge accuracy can be dramatically impacted by changes in temperature, re-zeroing of gauges and other factors. Until now there has been no one single solution to address these concerns. The Ashcroft precision digital test gauge is that solution.

Unmatched Accuracy Performance

- ▶ .05% Full Scale Total Error Band (TEB). Includes the effects of linearity, hysteresis, repeatability and temperature from 0 to150°F
- ► Gauge also available with .1% or .25% full scale **TEB** accuracies
- Terminal point accuracy allows re-zeroing to eliminate sensor offset
- 12 units of measurement
- Inches of water range for three reference temperatures: 4°C, 20°C and 60°F

INDUSTRY LEADING FEATURES Rugged Design

- Stainless steel case and socket welded for strenath
- Polyester window protects display from damage.
- Stainless steel cover protects keypad
- Weatherproof, NEMA 4, IP65 case
- Intrinsically safe, FM/CSA approval not available on vacuum ranges and compound ranges up to 15 psi
- Strain relief to protect wiring while replacing **batteries**
- Optional Protective Rubber Boot.

Industry Leading Display and Portable Size

- Industry's smallest case size (3")
- Largest display height of .66"
- Seven languages
- ▶ % of range bar graph

Safety

- > The only portable digital test gauge that meets ASME B407
- Pressure range on keypad and bar graph reduces accidental overpressure
- Proof pressure = 2 x gauge range

What you should know about digital test gauge accuracy... Terminal Point versus Best Fit **Straight Line Accuracy.**

Ambient Temperature Changes

Other manufacturers of digital gauges may specify operating temperature range without specifying the additional error associated with changes in ambient temperature. Errors can range as high as .04%/°F. A 25°F change from an ambient of 70°F may add an additional 1% to the stated accuracy of the gauge! The Ashcroft digital gauge with total error band ensures accuracy from 0-150°F.

Ashcroft Precision Digital Gauges with **Terminal Point Accuracy** BENEFIT

All points between Terminal Point: end points (zero and full scale) are connected by a straight line zero and full-scale accuracy offset RANGE 100%

Competitive Digital Gauges with Best Fit Straight Line (BFSL) Accuracy



PRESSURE

will be within stated Allows zeroing of gauge at start-up to eliminate any sensor

a straight line to a non-linear curve. BFSL gauges have a zero offset at calibration that must be main-

The Bottom Line...



Total Error Band (TEB)An Ashcroft Exclusive

INDUSTRY LEADING CONFIGURABLE OPTIONS

- UNITS of measurement 12 options including "H₂O with three temperature offerings
- LANGUAGES Seven available options
- UPDATE RATE Four options
- DAMPENING Five averaging options
- PASSWORD PROTECTED Calibration, Zero & Span
- DISABLE Password protected
- BACKLITE Five options including NEVER
- CONTRAST Seven available options
- AUTO OFF Five options





All specifications are subject to change without notice. All sales subject to standard terms and conditions. © 2012 Ashcroft Inc. 08/14

Ashcroft Inc 250 Fast Main Street Stratford CT 06614 USA Tel: 203-378-8281 • Fax: 203-385-0408 email: info@ashcroft.com • www.ashcroft.com

Linearity error minimized by "best" fitting



Types 2089, 2086 & 2084 Precision Digital Test Gauge

DIMENSIONS



PRESSURE RANGES:

psi	Compound (psi)	kPa	Bar/ KSC	Compound (bar)
vac.	15# & vac.	-100/0	1	-1 to 0
5	30# & vac.	25	1.6	-1 to 1
10	60# & vac.	40	2.5	-1 to 2
15	100# & vac.	60	4	-1 to 3
30		100	6	-1 to 30
60		160	10	
100		250	16	
160		400	25	
200		600	40	
300		1000	60	
500			160	
600			250	
800			400	
1000			500	
2000				
2500				
3000				
5000				
7000				

mmH₂0	MPa	mBar/ cmH₂O	Absolute (psia)
3000	1	250	15
5000	1.6	300	25
10,000	2.5	400	50
	6	500	
	40	600	
		1000	
		1600	
		2000	
		2500	
		4000	
		5000	
		6000	
		10,000	





All specifications are subject to change without notice. All sales subject to standard terms and conditions. © 2012 Ashcroft Inc. 08/14 Ashcroft Inc., 250 East Main Street, Stratford, CT 06614 USA Tel: 203-378-8281 • Fax: 203-385-0408 email: info@ashcroft.com • www.ashcroft .com