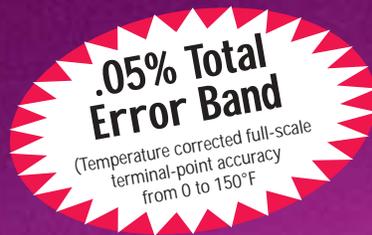


## Precision Digital Test Gauge

- Industry Leading Accuracy
- Breakthrough Display
- Rugged & Portable Design
- Configurable Options Including:
  - 12 Engineering Units
  - 7 Languages
  - Update and Dampen Modes
  - Password Protected Calibration, Zero and Span
  - 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.

## EXCLUSIVE TEB ACCURACY

- .05% Full Scale Total Error Band (TEB). Includes the effects of linearity, hysteresis, repeatability and temperature from 0/150°F
- Gauge also available with .1% or .25% TEB accuracies
- Terminal point accuracy allows re-zeroing to eliminate sensor offset.
- 12 units of measurement
- Inches of water range for three temperatures: 4°C, 20°C and 60°F

## INDUSTRY LEADING FEATURES

### RUGGED DESIGN

- Stainless steel case to socket weld for strength
- Lexan window protects display from damage
- Stainless steel cover protects keypad
- Weatherproof, NEMA 4, IP65 case
- Intrinsically safe, FM Approved Class I, Div. 1
- Strain relief to protect wiring while replacing batteries

### INDUSTRY LEADING DISPLAY AND PORTABLE SIZE

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

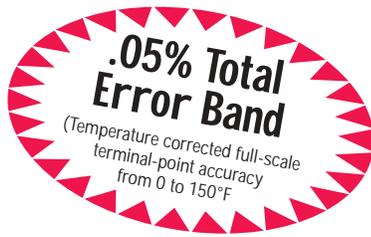
### SAFETY

- The only portable digital test gauge that meets ASME B40.7
- Pressure range and bar graph on keypad reduces accidental overpressure
- Proof pressure = 2 x gauge range



*Range on keypad, complies with ASME B40.7, reduces the possibility of accidental overpressure*

*Press to indicate minimum or maximum pressure gauge has measured  
Stores Minimum and Maximum Values*



.66" high digital display

Bar graph of full scale

Flashing display when unit pressured beyond range and below zero

Battery level indicator

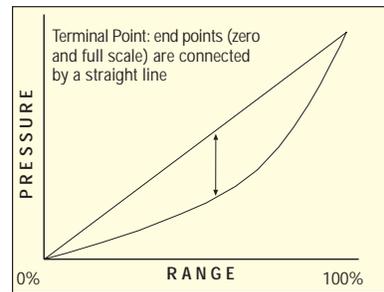
## What you should know about digital test gauge accuracy... Terminal Point versus Best Fit Straight Line Accuracy.

### Ambient Temperature Changes

Unlike the Ashcroft digital gauge with total error band from 0-150°F. 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!

### Ashcroft Precision Digital Gauges with Terminal Point Accuracy

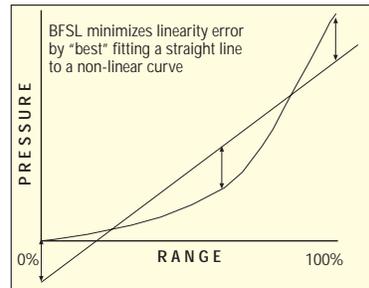
- Gauges calibrated with *Zero Error* at zero and full scale



#### Benefit

- All points between zero and full-scale will be within stated accuracy
- Allows zeroing of gauge at start-up to eliminate any zero shift

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



- Linearity error minimized by "best" fitting a straight line to a non-linear curve.
- BFSL gauges have a zero offset at calibration that must be maintained to ensure accuracy throughout range

#### Problem

- Rezeroing gauge may invalidate published Accuracy specification
- Zero offset at start-up may be the result of:
  - BFSL Calibration...OR
  - Zero Drift

## The Bottom Line...

### Ashcroft Digital Test Gauge Accuracy Includes

Linearity	✓
Hysteresis	✓
Repeatability	✓
Temperature (0/150°F)	✓
Terminal Point Accuracy	✓

= Total Error Band (TEB)  
...An Ashcroft Exclusive

## INDUSTRY LEADING CONFIGURABLE OPTIONS

- **UNITS** of measurement – 12 options including ~H<sub>2</sub>O with three temperature options
- **LANGUAGES** – Seven available options
- **UPDATE RATE** – Four options; measured per second
- **DAMPING** – Five options; averages readings per milliseconds
- **PASSWORD PROTECTED** – Calibration, Zero & Span
- **DISABLE** – Password protected
- **BACKLITE** – Five options including NEVER
- **CONTRAST** – Seven available options
- **AUTO OFF** – Five options

**PRODUCT SPECIFICATIONS**

Type:	2089 (0.05% accuracy), 2086 (0.10% accuracy), 2084 (0.25% accuracy)
Accuracy:	0.05%, 0.10% or 0.25% all Full Scale Terminal Point Total Error Band (TEB) Including Hysteresis, Linearity, Repeatability and Temperature (0/150°F)
Case Size:	3"
Case Material:	300 Series Stainless Steel
Case Finish:	Electropolished
Case Rating:	Weatherproof, IP65, NEMA 4
Wetted Parts:	316 Stainless Steel
Socket Size:	¼ NPT, JIS, DIN, SAE, (others on application)
Connection:	Lower – 3 and 9 o'clock
Ranges:	Vac. thru 7500 psi (see engineering units below for other units of measurement)
Operating Temp.:	0/150°F (-18/63°C)
Storage Temp.:	-40/180°F (-40/82°C)
Temp. Corrected:	Yes

**DISPLAY**

Type:	LCD
Display Digits:	4½, 19,999 counts
Character Height:	.66"
Backlite:	Off by default
Bar Graph:	Yes
Battery Life:	>1000 hrs. (3 AAA alkaline batteries)
Agency Approvals:	CE, FM (CSA, Cenelec approvals pending)

**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, "H <sub>2</sub> O, ftSW, Bar, mBar, kPa, mPa, mmHg, cmH <sub>2</sub> O, mmH <sub>2</sub> O, kg/cm <sup>2</sup>
Update Rate:	4 Options: 10x/sec, 5x/sec, 2x/sec, 1x/sec
Auto Off:	5 Options: Never, 2 min., 5 min., 15 min., 30 min.
Dampening:	5 Options: None, average 2, 4, 6, 8 readings
Language:	7 Languages: English, Spanish, French, Italian, German, Portuguese, Dutch
Backlite:	5 Options: On/off, 10 sec., 30 sec., 1 min., 5 min.
Calibrate:	Zero and Span (password protected)
Contrast:	7 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 St. St. Protective Cover, Protective Carrying Pouch

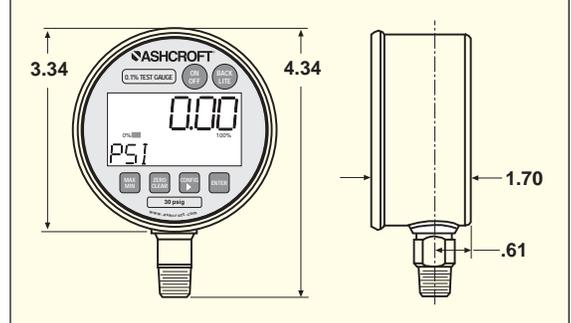
**DIGITAL TEST GAUGE RANGES:**

psi	Compound (psi)	kPa	Bar/ KSC	Compound (bar)
vac.	15# & vac.	25	1	-1 to 3
10	30# & vac.	40	1.6	-1 to 30
15		60	2.5	
30*		100	4	
60		160	6	
100		250	10	
160		400	16	
200		600	25	
300*		1000	40	
500			60	
600			100	
800			160	
1000			250	
1500			400	
2000			500	
2500				
3000*				
5000				
7500				

\*Only available with Types 2086 and 2084

mmH <sub>2</sub> O	mPa	mBar/ cmH <sub>2</sub> O	Absolute (psia)	Temp. Options
3000	1	250	15	4°C
5000	1.6	300	25	20°C
10,000	2.5	400	50	60°F
	6	500		
	100	600		
	160	1000		
	250	1600		
	400	2000		
	500	2500		
		4000		
		5000		
		6000		
		10,000		

**Dimension Drawing**



Dresser Instrument  
 Dresser, Inc.  
 250 E. Main Street  
 Stratford, CT 06614-5145  
 Tel: (203) 378-8281  
 Fax: (203) 385-0408  
 www.ashcroft.com



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