

3084, 3086 & 3089 Digital Test Gauge

Features

- Full Scale Total Error Band (TEB) includes the effects of linearity, hysteresis, repeatability and temperature from 0 °F to 150 °F (-18 °C to 63 °C)
- Weatherproof IP65
- Large LCD display
- Seven languages
- Field calibration capability

Typical Uses

- Test bench / gauge repair facilities
- Calibration laboratories
- Mobile calibration labs
- Test measurement and validation

Specifications

| | |
|------------------------------|---|
| Accuracy: | 3089: $\pm 0.05\%$ of span accuracy 3086: $\pm 0.10\%$ of span accuracy 3084: $\pm 0.25\%$ of span accuracy Terminal Point, Total Error Band (TEB) Including Hysteresis, Linearity, Repeatability and Temperature (0 °F to 150 °F) |
| Size: | 3" |
| Case Material: | 300 Stainless Steel |
| Case Finish: | Tumble polished |
| Storage/Protection: | Stainless steel face cover (included) Zippered gauge pouch (included) Black or orange rubber boot (optional) |
| Carrying Case: | Weatherproof ABS gauge carrying case (optional) |
| Process Connection: | 1/4 NPT Male |
| Process Connection Location: | Lower, left or right |
| Mounting: | Stem |
| Ranges: | Gauge, compound, absolute and vacuum thru 7,000 psi (see engineering units on page 3 for other units of measurement) |
| Temperature Corrected: | Yes |
| Calibration Chart: | 10 point traceable calibration chart standard for model 3089 only, optional for models 3084 and 3086. |
| Enclosure Rating: | Weatherproof, IP65 |

Wetted Components

| Model | Process Connection and Sensor |
|------------------|-------------------------------|
| 3084, 3086, 3089 | 316 Stainless steel |

Non-Wetted Components

| Model | Case |
|------------------|---------------------|
| 3084, 3086, 3089 | 304 Stainless steel |



KEY BENEFITS

- Highly accurate test instruments
- Silicone MEMS sensor technology provides accuracy and long term stability
- Rugged and portable design
- Twelve engineering units

Min/Max Temperature Limits

| Version | Process | Storage |
|------------------|-------------------------------------|---------------------------------------|
| 3084, 3086, 3089 | 0 °F to 150 °F (-18 °C to 65 °C) | -40 °F to 180 °F (-40 °C to 82 °C) |

Display

| | |
|-------------------|---|
| Type: | LCD |
| Display Digits: | 5 |
| Character Height: | 0.66" |
| Backlight: | Off by default, programmable Manually turns backlight on and off |
| Bar Graph: | 10 segment |
| Battery Life: | 1,000 hrs. (3 AAA alkaline batteries) |

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Pressure Ratings

| Overpressure: | Proof: | Burst: |
|----------------------|-----------|-----------|
| Vac to ≤300 psi | 2 X Range | 3 X Range |
| ≥300 to ≤3,000 psi | 2 X Range | 5 X Range |
| ≥5,000 to ≤7,000 psi | 2 X Range | 2 X Range |

Agency Approvals

FM Intrinsically Safe.

FM Class I to III, Div. 1 Groups A-G

Note: FM approval not valid on the following ranges: 0#&V, 15#&V, 30#&V, 0BR&V, 1BR&V, 2BR&V

| Ordering Code | Example: | 30 | 3089 | S | D | 02 | L | XS7 | 1000# |
|--|----------|----|------|---|---|----|---|-----|-------|
| Dial Size | | | | | | | | | |
| 30 - 3.0" | | 30 | | | | | | | |
| Model (Accuracy) | | | | | | | | | |
| 3089 - ±0.05% of span (Traceable calibration certificate) | | | 3089 | | | | | | |
| 3086 - ±0.10% of span | | | | | | | | | |
| 3084 - ±0.25% of span | | | | | | | | | |
| System | | | | | | | | | |
| S - 316 Stainless Steel | | | | S | | | | | |
| Case | | | | | | | | | |
| D - Dry | | | | | D | | | | |
| Process Connection Size | | | | | | | | | |
| 02 - ¼ NPT Male | | | | | | 02 | | | |
| Process Connection Location | | | | | | | | | |
| L - Lower | | | | | | | L | | |
| E - Left (9 o'clock) | | | | | | | | | |
| D - Right (3 o'clock) | | | | | | | | | |
| T - Top | | | | | | | | | |
| Options (if choosing an option(s) must include a "X") | | | | | | | | X | |
| B1 - Protective rubber boot (black) (not available with FF option) | | | | | | | | | |
| B2 - Protective rubber boot (orange) (not available with FF option) | | | | | | | | | |
| C4 - Traceable calibration certificate (included on 3089, no code required) | | | | | | | | | |
| FF - Flange for panel mounting (not available with B1 and B2 options) | | | | | | | | | |
| MF - Free from mercury certificate | | | | | | | | | |
| MN - Mylar tag bonded to case | | | | | | | | | |
| NH - Metal Tag wired to case | | | | | | | | | |
| NN - Paper Tag bonded to case | | | | | | | | | |
| S7 - Weatherproof ABS gauge carrying case | | | | | | | | | |
| TU - Throttle plug | | | | | | | | | |
| 25 - ISO/IEC 17025 certified calibration | | | | | | | | | |
| 6W - Cleaned to ASME B40.100 level IV NOT marked for oxygen service (6B oxygen cleaning not available) | | | | | | | | | |
| Range (coding example, see range table below for all standard ranges) | | | | | | | | | |
| 1,000# - 0-1,000 psi | | | | | | | | | 1000# |

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Menu Mode

| | |
|------------------------------|---|
| Engineering Units: | psi, inHg, inH ₂ O, ftSW, Bar, mBar, kPa, mPa, mmHg, cmH ₂ O, mmH ₂ O and kg/cm ² |
| Configuration Mode (Config): | Access configuration menus to select available options |
| Auto Off (Off): | Allows for changes to auto off of gauge, five options: Never, 2 min., 5 min., 15 min., 30 min. |
| Update Rate (Update): | 100 ms, 200 ms, 500 ms or 1 sec |
| Dampening (Damp): | None, average, 2, 4, 6 or 8 times per 100 ms |
| Backlite: | Never, 10 sec., 30 sec., 1 min. or 5 min. |
| Field Recalibration: | Allows for recalibration of zero, midscale and span (password protected) |

Keypad Functions

| | |
|-----------------------------|---|
| On/Off: | Manually turns unit on and off (auto off options in configuration menu) |
| Min./Max. (down) Arrow Key: | Stores Min. and Max. values, arrow key allows for scrolling thru menu items |
| Zero/Clear: | Zeros display and clears Min. and Max. values |
| Zero Disable: | Allows for disabling of Zero button |
| Contrast: | Seven options available |
| Disable: | Allows for "lock-out" of CONFIG options |
| Menu Key: | Provides access to menu options |
| Enter: | Selects items in the configuration menu |

Standard Pressure Ranges

| Single Scale | | Single Scale | |
|-----------------|--------|---|----------|
| psi | bar | psi | bar |
| Pressure | | Absolute | |
| 5# | 1 BR | 15#A | 1.0 BRA |
| 10# | 1.6 BR | 25#A | 1.6 BRA |
| 15# | | 50#A | 2.5 BRA |
| 30# | 2.5 BR | Compound | |
| 60# | 4 BR | 15#&V | |
| 100# | 6 BR | 30#&V | 1 BR & V |
| 160# | 10 BR | 60#&V | 2 BR & V |
| 200# | 16 BR | 100#&V | 3 BR & V |
| | 25 BR | Vacuum | |
| | 40 BR | 0#&V | 0 BR & V |
| 300# | 60 BR | Consult factory for additional ranges and units of measure. | |
| 500# | | | |
| 600# | 160 BR | | |
| 800# | 250 BR | | |
| 1000# | 350 BR | | |
| 2000# | | | |
| 2500# | | | |
| 3000# | | | |
| 5000# | | | |
| 7000# | | | |

Dimensions in inches

For reference only, consult Ashcroft for specific dimensional drawings

