

## Data Sheet

### 1082 Test Gauge

#### FEATURES

- MircoSpan™ adjustment eases span calibration
- Mirror-band dial and knife-edge pointer eliminates parallax error while assuring easy readability of precise measurements
- Teflon™ coated, stainless steel movement
- Accuracy complies with  $\pm 0.25\%$  of span (ASME B40.1 Grade 3A)
- Externally adjustable dial

#### TYPICAL USES

- Test benches
- Specialized OEM equipment
- Test and measurement & validation
- Calibration labs

#### SPECIFICATIONS

|                              |                                                                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Accuracy:                    | $\pm 0.25\%$ of span (ASME B40.100 Grade 3A)                                                                                                            |
| Ranges:                      | Vacuum, Compound to 10,000 psi                                                                                                                          |
| Sizes:                       | 4½", 6" or 8½"                                                                                                                                          |
| Process Connection Location: | Lower or Back                                                                                                                                           |
| Process Connection:          | ¼ NPT Male or ½ NPT Male                                                                                                                                |
| Dial:                        | Externally adjustable aluminum, black numerals with polished mirror band                                                                                |
| Case Style:                  | Solid front                                                                                                                                             |
| Movement:                    | 400 Series SS rotary design, Teflon™ S coated bearings, micrometer span adjustment, bimetallic temp. compensator (0.005%/per °F Max. temperature error) |
| Pointer:                     | Black painted aluminum with red-painted, knife edge tip                                                                                                 |
| Mounting Options:            | Stem or flush                                                                                                                                           |
| Weather Protection:          | Case not sealed, recommended for weather protected environment only                                                                                     |
| Approvals:                   | CE/UKCA, CRN                                                                                                                                            |

#### WETTED COMPONENTS

| Bourdon Tube | Process Connection | Joints        |
|--------------|--------------------|---------------|
| Bronze       | Brass              | Silver Brazed |
| Monel®       | Monel®             | Welded        |

#### NON-WETTED COMPONENTS

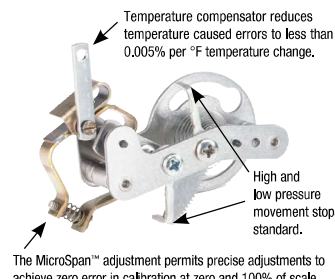
| Case                                      | Ring                               | Window |
|-------------------------------------------|------------------------------------|--------|
| Aluminum, solid front, black epoxy coated | Hinged steel, black wrinkle finish | Glass  |



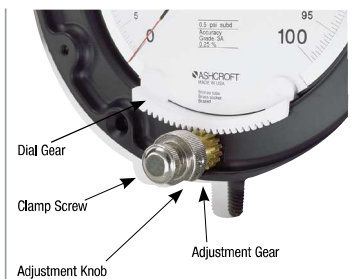
**1082**  
4½", 6", 8½" dial sizes



#### Temperature Compensated Movement



#### Externally Adjustable Dial



#### KEY BENEFITS

- Temperature-compensated movement significantly reduces temperature error
- Rugged stainless steel construction
- Compact design

#### MIN/MAX TEMPERATURE LIMITS

| Version | Ambient                               | Process                                | Storage                                |
|---------|---------------------------------------|----------------------------------------|----------------------------------------|
| Dry     | -20 °F to 200 °F<br>(-29 °C to 93 °C) | -20 °F to 250 °F<br>(-29 °C to 121 °C) | -40 °F to 250 °F<br>(-40 °C to 121 °C) |

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| ORDERING CODE                                                                       | Example: | 45 | 1082 | P | S | 02 | L | 100# | -XPD |
|-------------------------------------------------------------------------------------|----------|----|------|---|---|----|---|------|------|
| <b>Dial Size</b>                                                                    |          |    |      |   |   |    |   |      |      |
| 45 - 4½" dial                                                                       |          | 45 |      |   |   |    |   |      |      |
| 60 - 6" dial                                                                        |          |    |      |   |   |    |   |      |      |
| 85 - 8½" dial                                                                       |          |    |      |   |   |    |   |      |      |
| <b>Model</b>                                                                        |          |    |      |   |   |    |   |      |      |
| 1082 - Test gauge                                                                   |          |    | 1082 |   |   |    |   |      |      |
| <b>System</b>                                                                       |          |    |      |   |   |    |   |      |      |
| A - Bronze tube and brass socket (maximum available range 400 psi)                  |          |    |      |   |   |    |   |      |      |
| P - Monel® tube and socket                                                          |          |    |      | P |   |    |   |      |      |
| <b>Case Style</b>                                                                   |          |    |      |   |   |    |   |      |      |
| S - Solid front                                                                     |          |    |      |   | S |    |   |      |      |
| <b>Process Connection Size</b>                                                      |          |    |      |   |   |    |   |      |      |
| 02 - ¼ NPT Male                                                                     |          |    |      |   |   | 02 |   |      |      |
| 04 - ½ NPT Male                                                                     |          |    |      |   |   |    |   |      |      |
| <b>Process Connection Location</b>                                                  |          |    |      |   |   |    |   |      |      |
| L - Lower                                                                           |          |    |      |   |   |    | L |      |      |
| B - Back                                                                            |          |    |      |   |   |    |   |      |      |
| <b>Ranges (See additional range tables on page 3)</b>                               |          |    |      |   |   |    |   |      |      |
| 15# - 0-15 psi                                                                      |          |    |      |   |   |    |   |      |      |
| 30# - 0-30 psi                                                                      |          |    |      |   |   |    |   |      |      |
| 60# - 0-60 psi                                                                      |          |    |      |   |   |    |   |      |      |
| 100# - 0-100 psi                                                                    |          |    |      |   |   |    |   | 100# |      |
| 160# - 0-160 psi                                                                    |          |    |      |   |   |    |   |      |      |
| 200# - 0-200 psi                                                                    |          |    |      |   |   |    |   |      |      |
| 300# - 0-300 psi                                                                    |          |    |      |   |   |    |   |      |      |
| 400# - 0-400 psi                                                                    |          |    |      |   |   |    |   |      |      |
| 600# - 0-600 psi (Monel® wetted parts only)                                         |          |    |      |   |   |    |   |      |      |
| 1000# - 0-1,000 psi (Monel® wetted parts only)                                      |          |    |      |   |   |    |   |      |      |
| <b>Options (If choosing an option(s) must include an "X")</b>                       |          |    |      |   |   |    |   |      |      |
| PD - Acrylic window                                                                 |          |    |      |   |   |    |   |      | -X__ |
| SG - Safety Glass window                                                            |          |    |      |   |   |    |   |      | PD   |
| TS - Throttling devices                                                             |          |    |      |   |   |    |   |      |      |
| AY - Aluminum case, threaded ring (N/A with adjustable dial, Lower connection only) |          |    |      |   |   |    |   |      |      |
| TY - Phenolic case, threaded ring (N/A with adjustable dial, Lower connection only) |          |    |      |   |   |    |   |      |      |
| C4 - <a href="#">Traceable calibration certificate</a>                              |          |    |      |   |   |    |   |      |      |

# Data Sheet

## 1082 Test Gauge

| STANDARD RANGES          |          |             |                 |                   |
|--------------------------|----------|-------------|-----------------|-------------------|
|                          | Range    |             | Graduations     |                   |
|                          | psi      | in. Hg      | Figure Interval | Minor Graduations |
| <b>Vacuum</b>            | -        | 30/0 in. Hg | 2 in. Hg        | 0.1 in. Hg        |
| <b>Positive Pressure</b> | 0/15     | —           | 1               | 0.05              |
|                          | 0/30     | —           | 2               | 0.1               |
|                          | 0/60     | —           | 5               | 0.2               |
|                          | 0/100    | —           | 5               | 0.5               |
|                          | 0/150    | —           | 10              | 0.5               |
|                          | 0/200    | —           | 10              | 1                 |
|                          | 0/300    | —           | 10              | 1                 |
|                          | 0/400    | —           | 20              | 2                 |
|                          | 0/600    | —           | 50              | 2                 |
|                          | 0/800    | —           | 50              | 5                 |
|                          | 0/1000   | —           | 50              | 5                 |
|                          | 0/1500   | —           | 100             | 5                 |
|                          | 0/2000   | —           | 100             | 10                |
|                          | 0/3000   | —           | 200             | 10                |
|                          | 0/5000   | —           | 500             | 10                |
|                          | 0/10,000 | —           | 1000            | 50                |

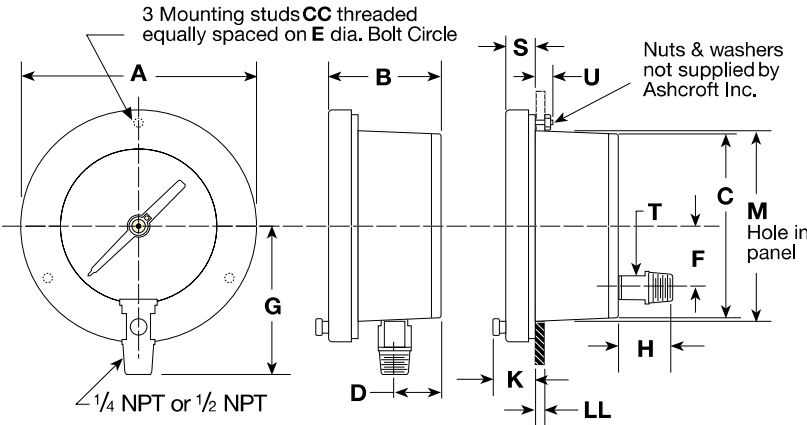
| COMPOUND RANGES |            |         |                 |
|-----------------|------------|---------|-----------------|
|                 | in. Hg/psi |         |                 |
|                 | psi        | in. Hg  | Figure Interval |
| <b>Compound</b> | 30/0/15    | 30/0/20 | 5/0/2           |
|                 | 30/0/30    | 30/0/20 | 5/0/1           |
|                 | 30/0/60    | 30/0/20 | 2/0/1           |
|                 | 30/0/100   | 30/0/10 | 2/0/1           |
|                 | 30/0/150   | 10/0/5  | 1/0/0.5         |
|                 | 30/0/200   | 10/0/5  | 1/0/0.5         |
|                 | 30/0/300   | 10/0/5  | 0.5/0/0.2       |
|                 | 30/0/400   | 5/0/2   | 0.5/0/0.1       |

| STANDARD RANGES          |          |            |                    |
|--------------------------|----------|------------|--------------------|
|                          | Bar      | kPa        | kg/cm <sup>2</sup> |
| <b>Vacuum</b>            | -1/0     | -100/0     | -1/0               |
| <b>Compound</b>          | -1/0/1.5 | -100/0/150 | -1/0/1.5           |
|                          | -1/0/3   | -100/0/300 | -1/0/3             |
|                          | -1/0/5   | -100/0/500 | -1/0/5             |
|                          | -1/0/9   | -100/0/900 | -1/0/9             |
| <b>Positive Pressure</b> | 0/1      | 0/100      | 0/1                |
|                          | 0/1.6    | 0/160      | 0/1.6              |
|                          | 0/2.5    | 0/250      | 0/2.5              |
|                          | 0/4      | 0/400      | 0/4                |
|                          | 0/6      | 0/600      | 0/6                |
|                          | 0/10     | 0/1000     | 0/10               |
|                          | 0/16     | 0/1600     | 0/16               |
|                          | 0/25     | 0/2500     | 0/25               |
|                          | 0/40     | 0/4000     | 0/40               |
|                          | 0/60     | 0/6000     | 0/60               |
|                          | 0/100    | 0/10,000   | 0/100              |
|                          | 0/160    | 0/16,000   | 0/160              |
|                          | 0/250    | 0/25,000   | 0/250              |
|                          | 0/400    | 0/40,000   | 0/400              |
|                          | 0/600    | 0/60,000   | 0/600              |

1082 Test Gauge

**DIMENSIONS** in [ ] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings



| Dial Size (inches) | A             | B          | C           | CC     | D           | E           | F          | G           | H          | K           | LL                   | M           | S        | T        | U        |
|--------------------|---------------|------------|-------------|--------|-------------|-------------|------------|-------------|------------|-------------|----------------------|-------------|----------|----------|----------|
| 4 1/2              | 6 3/32 [155]  | 2 7/8 [73] | 4 3/4 [121] | #10-24 | 1 3/16 [30] | 5 3/8 [137] | 1 5/8 [41] | 4 7/8 [100] | 1 3/8 [35] | 1 1/32 [34] |                      | 4 7/8 [124] |          | 5/8 [16] | 3/4 [19] |
| 6                  | 7 9/16 [192]  | 2 7/8 [73] | 4 3/4 [121] | 1/4-20 | 1 3/16 [30] | 7 [178]     | 1 5/8 [41] | 4 1/2 [114] | 1 3/8 [35] | 1 1/32 [34] | 1/8 to 1/2 [3 to 13] | 6 1/2 [165] | 5/8 [16] | 5/8 [16] | 3/4 [19] |
| 8 1/2              | 10 1/16 [257] | 2 7/8 [73] | 4 3/4 [121] | 1/4-20 | 1/4-20      | 9 5/8 [244] | 1 5/8 [41] | 6 [152]     | 1 3/8 [35] | 1 1/32 [34] |                      | 9 [229]     |          | 5/8 [16] | 3/4 [19] |