

# 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



**1082**  
4½", 6", 8½" dial sizes



### 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  |

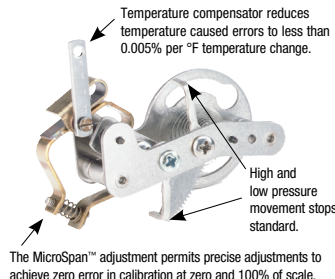
### WETTED COMPONENTS

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

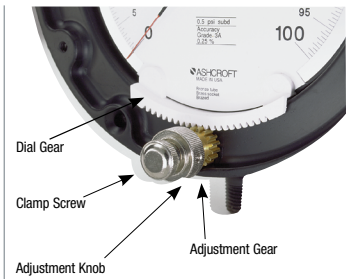
### NON-WETTED COMPONENTS

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

#### 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_ PD |
| SG - Safety Glass window  |          |    |      |   |   |    |   |      |        |
| 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>                              |          |    |      |   |   |    |   |      |        |

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| 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        |
|                          | 0/15     | -           | 1               | 0.05              |
| <b>Positive Pressure</b> | 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                |

| STANDARD RANGES          |               |            |                    |
|--------------------------|---------------|------------|--------------------|
|                          | Bar           | kPa        | kg/cm <sup>2</sup> |
|                          | <b>Vacuum</b> | -1/0       | -100/0             |
| -1/0/1.5                 |               | -100/0/150 | -1/0/1.5           |
| <b>Compound</b>          | -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             |
|                          | 0/1           | 0/100      | 0/1                |
| <b>Positive Pressure</b> | 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      |                    |

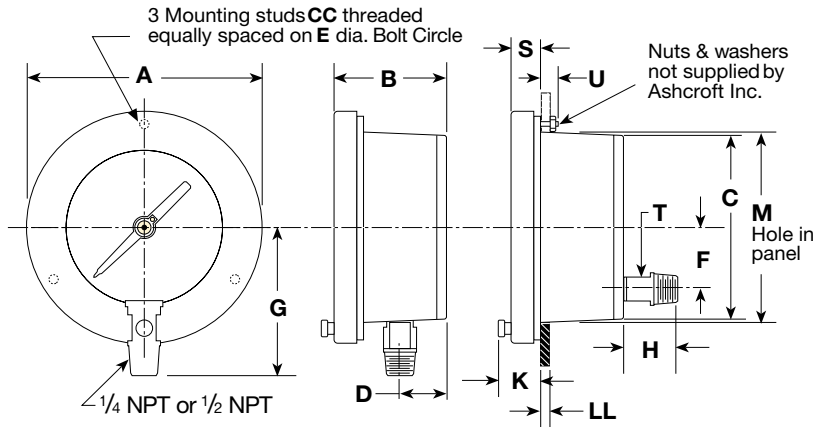
| COMPOUND RANGES |                 |         |           |
|-----------------|-----------------|---------|-----------|
|                 | in. Hg/psi      |         |           |
|                 | <b>Compound</b> | 30/0/15 | 30/0/20   |
| 30/0/30         |                 | 30/0/20 | 5/0/1     |
| 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 |

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### 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<br>[155]  | 2 7/8<br>[73] | 4 3/4<br>[121] | #10-24 | 1 3/16<br>[30] | 5 3/8<br>[137] | 1 5/8<br>[41] | 4 7/8<br>[100] | 1 3/8<br>[35] | 1 1/32<br>[34] |                         | 4 7/8<br>[124] |             | 5/8<br>[16] | 3/4<br>[19] |
| 6                  | 7 9/16<br>[192]  | 2 7/8<br>[73] | 4 3/4<br>[121] | 1/4-20 | 1 3/16<br>[30] | 7<br>[178]     | 1 5/8<br>[41] | 4 1/2<br>[114] | 1 3/8<br>[35] | 1 1/32<br>[34] | 1/8 to 1/2<br>[3 to 13] | 6 1/2<br>[165] | 5/8<br>[16] | 5/8<br>[16] | 3/4<br>[19] |
| 8 1/2              | 10 1/16<br>[257] | 2 7/8<br>[73] | 4 3/4<br>[121] | 1/4-20 | 1/4-20         | 9 5/8<br>[244] | 1 5/8<br>[41] | 6<br>[152]     | 1 3/8<br>[35] | 1 1/32<br>[34] |                         | 9<br>[229]     |             | 5/8<br>[16] | 3/4<br>[19] |