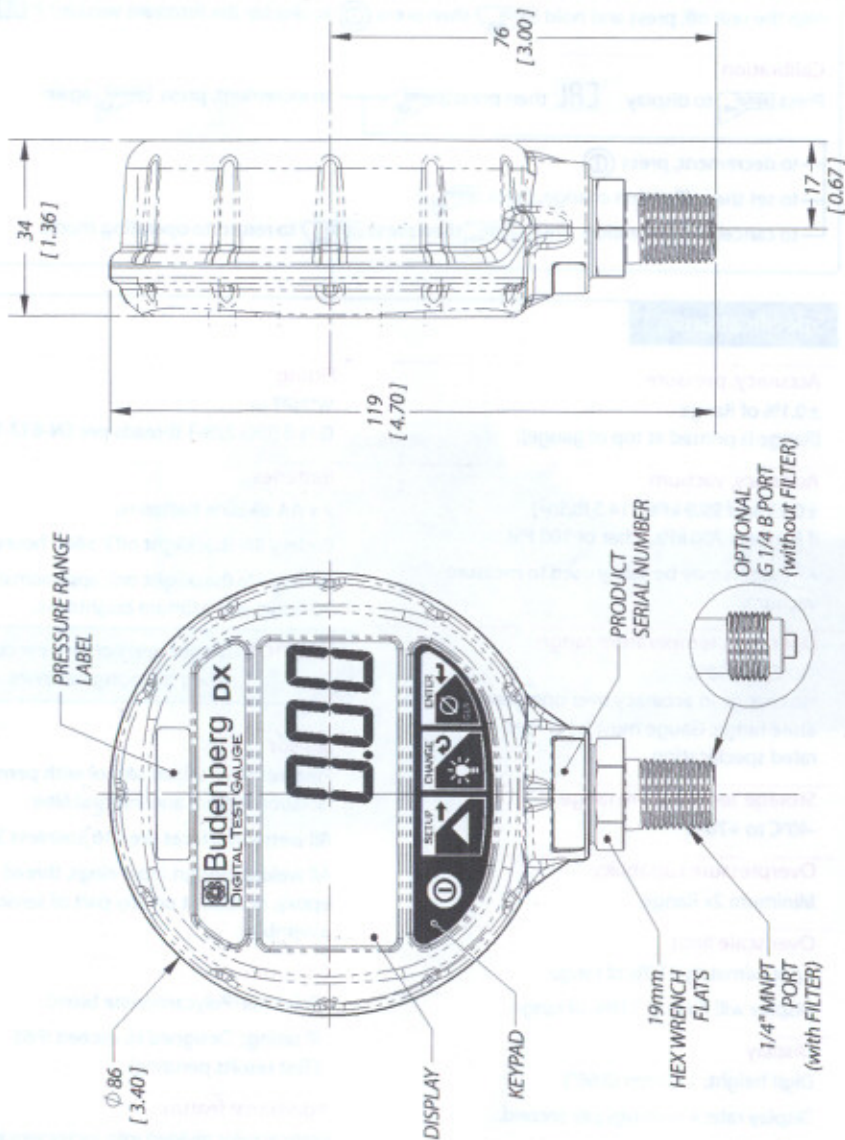


## External Dimensions



All dimensions are in millimeters [ inches ].


Actual weight is 236 grams [ 0.52 lbs ].

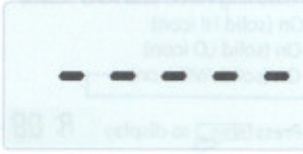
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PN: 3480—Rev 1


## Basic Functions


**On**  
Press and hold  until...

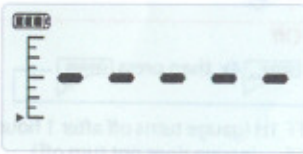


flashes, and then changes to...



**Off**  
Press and hold 

**Zero \***  
Press and hold  until...



**Backlight**  
Press  once for **maximum brightness**, again for **medium**, and again for **off**.

# Budenberg Dx

## DIGITAL TEST GAUGE

### Operation Manual



The Dx is a precision digital gauge whose performance matches or exceeds that of the best test gauges, but is much more robust.

Shock and vibration have no effect on the accuracy of the Dx, and even over-pressure has no effect until the sensor is stressed to destruction - which is at least two times the rating of any range specified.

The all welded stainless steel sensor does not contain or employ o-rings, thread seal tape or epoxy - unlike competing gauges. The Dx can be safely used with any gas or liquid compatible with 316 stainless steel, and it can be certified for use with oxygen.

\* To zero the DX, you must turn off peak indication then press CLR for at least 1/2 second. The display will then briefly flash all dashed lines (---), indicating that it has been re-zeroed. If you attempt to zero the gauge while more than 20 PSI (1.4 bar) is applied, the command will be ignored, and HI will be displayed.



## Optional Display Functions

### Display function basics

- 1 Press Setup to access a function.




- 2 Press Change to view the options within a function.



- 3 Press Enter to select an option and return to operating mode.\*



### To clear peaks

To clear the displayed pressure (line, HI, or LO) press and hold  until...



### Display function map

#### Max (HI), Min (LO) pressure, and Averaging (AVG)

Press  1x, then press 

- Off (flashing HI/LO and AVG icons)
- Hi On (solid HI icon)
- Lo On (solid LO icon)
- A On (solid AVG icon)



Press  to display 

to increment, press 

to decrement, press 

Press  \*

#### Pressure Units

Press  2x, then press 

- PSI (solid PSI icon)
- bar (solid bar icon)

Press  \*



#### Backlight Brightness

Press  5x, then press 


- Lt: 15 (Light on 15 seconds)
- Lt: 60 (Light on 60 seconds)
- Lt: On (Light on permanently)

Press  \*

**Note:** If there is no button activity for 10 seconds, the gauge will return to operating mode.

### Firmware and Calibration function map

#### Firmware

With the unit off, press and hold  then press  to display the firmware version 

#### Calibration

Press  to display  then press  to increment, press  again

to decrement, press 

to set the calibration change, press 

to cancel the calibration, press  then press  to return to operating mode.

### Specifications

#### Accuracy, pressure

±0.1% of Range  
(Range is printed at top of gauge).

#### Accuracy, vacuum

±0.25% of 99.9 kPa (-14.5 lb/in<sup>2</sup>)  
If Range ≤ 700 kPa, 7 bar or 100 PSI.

All models may be safely used to measure vacuum.

#### Operating temperature range

-10°C to +50°C  
No change in accuracy over operating temperature range. Gauge must be zeroed to achieve rated specification.

#### Storage temperature range

-40°C to +70°C

#### Overpressure capability

Minimum 2x Range.

#### Over scale limit

Approximately 110% of range.  
Display will flash at 110% of range.

#### Display

Digit height: 16.8mm (0.66")  
Display rate: 4 readings per second.

\* Pressing the Enter button returns the gauge to operating mode. If you want to set multiple Display Functions, press the Setup button to navigate from one Display Function to the next, then press Enter when you are done.

#### Fitting

¼" NPT or  
G ¼ B (ISO 228-1 threads per EN-837-1)

#### Batteries

2 x AA alkaline batteries.  
Battery life (backlight off): >600 hours.  
Battery life (backlight on): approximately 50 hours at maximum brightness.

**CAUTION** Do not overtighten rear cover when replacing batteries.

#### Sensor

Piezoresistive silicon sensor with permanent oil isolation system and integral filter.  
All wetted surfaces are 316 Stainless Steel.  
All welded design (no o-rings, thread tape, epoxy, or sealant on any part of sensor assembly).

#### Enclosure

Polyester/Polycarbonate blend.  
IP rating: Designed to exceed IP65  
(Test results pending)

#### Additional features

Vertical ruler divided into incremental steps of 12.5% of Range, with an arrow to indicate the current Range. (Current Range arrow disappears during vacuum operation.)  
Minimum (LO) and maximum (HI) capture.