



Features

- **Intrinsically Safe** - Canadian Standards Association (CSA) approval for use in Class 1, Division 2, Groups A, B, C and D hazardous area locations - battery version only
- **Precise Measurements** - Ultra-precision accuracy of 0.04% of reading plus 0.01% of full scale on all positive pressure ranges
- **Temperature Compensation** - accuracy not de-rated over the temp. range of 32-122 deg F with rigorous 3 temperature calibration
- **Rugged enclosure** - 300 Series Stainless Steel case with NEMA-4 waterproof rating
- **Security** - Password protected "through the keypad" Zero and Calibration information
- **Analog/Digital Display** - Large, backlit, 5 digit display with 0.65" high digits and complimentary 20 segment bar graph
- **Low Power consumption** - 2000 hours battery life @ slow sample rate from three (3) size AA alkaline batteries; adjustable sample rates
- **Versatile** - 6 pressure ranges available. Displays to 23 standard plus a fully custom Engineering Unit
- **Communication** - RS-232 output of ASCII data (optional cable required)
- **Peak/Valley measurements - MIN/MAX** function permits storage and retrieval of MIN and MAX pressure values
- **Tare** - allows re-zeroing of the gauge anywhere across the span of the gauge
- **Options** - 24 vdc power, mounting flanges, RS-232 output



*Pictured with
Optional Boot*

Product Description

The Accu-Cal Platinum Digital Test Gauge from 3D Instruments incorporates the ultimate in pressure measurement technology to address the calibration requirements of current process monitoring and control instrumentation. The Accu-Cal Platinum combines the accuracy of digital technology with the simplicity of an analog gauge and achieves performance, ease-of-use and a feature set unmatched in the pressure measurement world!

Outstanding SS pressure sensors from 0-30 to 0-3,000 psi provide for an accuracy of 0.04% of reading plus 0.01% of full scale. Temperature compensation circuitry coupled with a rigorous multi-temperature calibration routine maintains this astounding accuracy over a temperature range of 32° to 122° F!!

A 5 digit LCD with oversized 0.65" digits, high contrast, rotatable display and backlighting provides for superior resolution and excellent readability even at a distance or in poor light or at a bad viewing angle!! As the perfect complement to the digital display, the Accu-Cal Platinum offers a 20 segment bar graph scaled to 0-100% FS. This safety oriented feature gives the user a visual reference of their process pressure relative to scale of the gauge.

The Accu-Cal Platinum is housed in a polished 300 Series Stainless Steel case, which is rated waterproof according to NEMA-4/IP-65 specifications. All device controls including: POWER, ZERO, MIN/MAX and CONFIGURATION are selectable via a Lexan keypad for reliable operation in adverse weather conditions. To reduce maintenance, low power circuitry provides for a 2000 hour battery life at a sample rate of 0.5/sec with no backlighting.

This high-end pressure instrument provides for numerous user-configurable features such as: adjustable sample rates, damping (smoothing of data on LCD), Tare (re-zero across span of the gauge), custom Engineering Units, MIN/MAX and "password protected" field calibration. Other features include ambient temperature measurement and an optional RS-232 cable for streaming real-time ASCII data.

The combination of sophisticated precision pressure measurement technology; robust design, ease-of-use, feature set, and a wide array of pressure ranges makes the Accu-Cal Platinum from 3D Instruments the ideal choice for your demanding pressure monitoring or test and calibration applications.

GENERAL SPECIFICATIONS

FEATURES

Accuracies:

Positive Pressure: 0.04% of reading plus 0.01% of Full Scale on all pressure ranges

Vacuum: accuracy in the vacuum region on the -14.7-0-30 psig range is: 0.1% of Full Scale, where Full Scale is 30 psig. Positive pressure ranges 100 psig and below will read vacuum to -5 psig with accuracy unrated. Ranges above 100 psig will read vacuum to -12 psig with accuracy unrated.

All accuracies include all variations due to: non-linearity, hysteresis, repeatability and temperature over the compensated temperature range.

Ranges/Resolutions/Proof Pressure:

Range (Bar)	Resolution	Proof Pressure
-14.7-0-30 psi (2 Bar)	.001	60 psi
0-30 psi (2 Bar)	.001	60 psi
0-100 psi (7 Bar)	.01	200 psi
0-500 psi (35 Bar)	.01	1000 psi
0-1000 psi (70 Bar)	.1	2000 psi
0-3000 psi (200 Bar)	.1	6000 psi

Environmental:

Operating range: -10°C-55°C (14°F-131°F)

Compensated range: 0-50°C (32°F-122°F)

Storage range: -20°C-70°C (-4°F-158°F)

Agency Approvals: (755P4 Battery Power versions only)

Built to comply with requirements for Class I, Division 2, Groups A, B, C & D operation
 - CSA and ATEX (pending) Intrinsic Safety Approvals
 - CE Mark

Power:

3 x AA alkaline batteries. Delivers 1500 hours service @ 3 samples/sec @ 72 °F without backlight or 2000 hours at the 1 sample/2 secs w/o backlight @ 72°F

Display:

High contrast - LED backlight 5 digit, 0.65" high; 20 segment analog bargraph scaled to 0-100% of FS. LCD includes: Engr. Unit indication, MIN/MAX icons, low battery icon and backlight icon

Case:

Polished 304 Stainless Steel, NEMA-4/IP-65 waterproof rated

Mounting flanges (optional):

Front or back 300 series SS welded to case
 ANSI bolt pattern for 4 1/2 gauge

RS-232 (optional):

Custom cable - ASCII data

Graphic Overlay:

Polycarbonate

Pressure Sensors:

Isolated 316SS sensor; all wetted parts are 316SS

Process Connection:

1/4 NPT male 316SS

Dimensions (w/o flange):

4.375" x 5.0" x 1.5"

Weight (w/o flange):

1.09 lbs (495 gms)

Standard Engineering Units:

PSI, Bar, Kg/cm², inH₂O(4 °C or 20 °C or 60°F), ftH₂O(4 °C, 20 °C or 60°F), cmH₂O(4 °C & 20 °C), mH₂O(4 °C & 20 °C), kPa, MPa, mBar, inHg, mmHg, Torr ftSw, mSw, mmH₂O(4°C and 20°C) and custom Engineering Units
 *Not all Engineering Units enabled for all ranges

Password Protection:

"Tamper-proof" password protection of Zero and Calibration data is easily achieved via the keypad

LCD Bargraph:

20 segment bargraph is scaled at: 0-100% FS Provides a convenient visual reference of pressure readings relative to the pressure range of the gauge

Sample Rates:

User configurable 0.5/sec, 1/sec, 3/sec & 10/sec. 10/sec sampling good for QA/QC destructive tests

Power Management:

Adjustable auto power shut-off: 1-30 minutes - shut-off feature when enabled extends battery life

Damping:

Damping can be enabled to integrate readings and "smooth" LCD display: good for pulsation sources

MIN/MAX:

Capture & query MIN/MAX values: many applications in process monitoring and control

Tare:

0-100% FS zero offset: when used with custom Engr. Units, the gauge can be used in liquid level, volume and weighing applications.

ORDERING INFORMATION

PART NUMBER: ① XXXX ② XX ③ B ④ XX ⑤ XXX

Example:

755P4-33B55 Battery Powered Accu-Cal Platinum with 300 series SS case, 3000 psig sensor, bottom 1/4" NPT male fitting without mounting flange - includes a Calibration Certificate with data

- ① **Product Description:** **755P4** - Accu-Cal Platinum: 3 x AA battery powered (Batteries Included)
765P4 - Accu-Cal Platinum: 24 VDC version (**does not include a 24 VDC adapter**)

② Pressure Ranges Codes:

48: -14.7-0-30 psig **23:** 0-100 psig **29:** 0-1,000 psig
21: 0-30 psig **27:** 0-500 psig **33:** 0-3,000 psig

③ Process connection: B: 1/4" NPT male

④ Connection Position and Mounting Flange Codes: (Codes 35 and 45 not available on 765P4 series)

15: Flange front, bottom fitting **35:** Flange back, bottom fitting **55:** Flange none, bottom fitting
25: Flange front, back fitting **45:** Flange back, back fitting **65:** Flange none, back fitting

⑤ Option Codes: leave blank if no options are required

PNO: Accu-Cal Platinum Cal Kit #1 includes an Accu-Cal Platinum Digital Test Gauge, Model 8110-300: 0-300 psi Pneumatic Handpump, Hose Kit and Series-200 ABS waterproof case

PRO: Accu-Cal Platinum Cal Kit #2 includes an Accu-Cal Platinum Digital Test Gauge, Model 8111-300: Vac/0-300 psi Duplex Handpump, Hose Kit and Series-200 ABS waterproof case

PUO: Accu-Cal Platinum Cal Kit #3 includes an Accu-Cal Platinum Digital Test Gauge, Model 8112-3000: 0-3000 psi Hydraulic Handpump, Hose Kit and Series-200 ABS waterproof case

⑥ Accessories:

- Custom RS-232 Cable - Part Number: 2025-0004
- 110 VAC to 24 VDC power adapter wall mount style; 6 foot cable - Part Number: 2001-0090
- Protective yellow rubber boot for gauge - Part Number: 2023-0005 - fits only **no flange, bottom fitting** configuration only



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