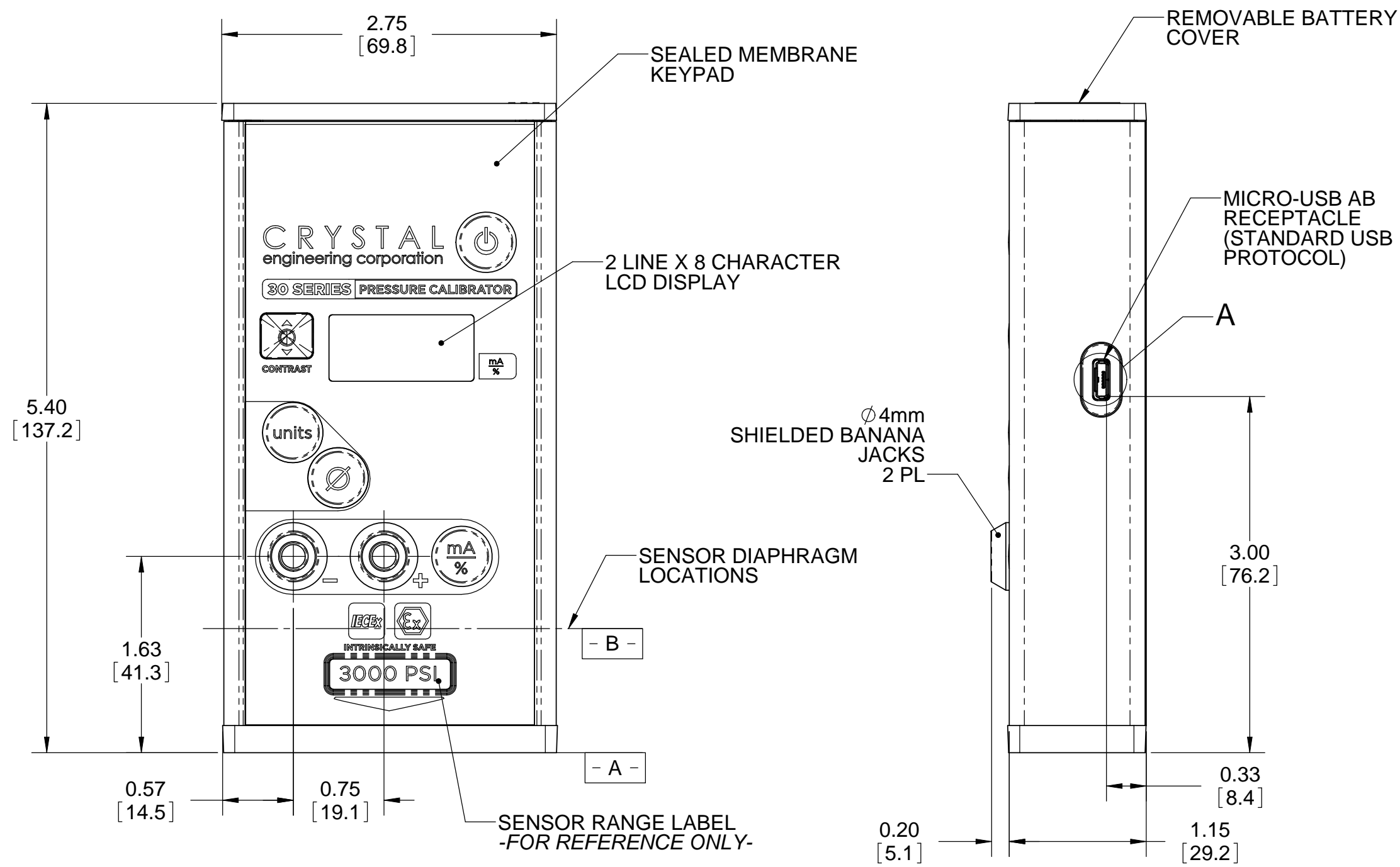


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE		



**SPECIFICATIONS**

**PRESSURE RANGE:** SEE PRESSURES AND RESOLUTIONS CHART

**PRESSURE ACCURACY:** ± (0.05% OF READING + FLOOR TERM\*)  
 \* FLOOR TERM = + 0.005% of FS or +1 LEAST SIGNIFICANT DIGIT (LSD) FOR RANGES WITH LIMITED RESOLUTIONS:

RANGE	LSD FLOOR TERM
16 PSI	0.001 PSI
1500 PSI	0.1 PSI
1 BAR	0.0001 bar
100 BAR	0.01 bar
100 KPA	0.01 kPa
10000 KPA	1 kPa

**VACUUM ACCURACY:** ±(0.25% OF READING + VACUUM FLOOR TERM\*) (ONLY APPLIES TO 300 PSI AND BELOW GAUGES):

RANGE	VACUUM FLOOR TERM
16 PSI, 36 PSI	0.004 PSI
300 PSI	0.01 PSI
1 BAR, 2 BAR	0.0003 bar
20 BAR	0.001 bar
100 KPA, 200 KPA	0.03 kPa
2000 KPA	0.1 kPa

**PRESSURE CONNECTION:** SINGLE 1/8"-27 FEMALE NPT

**PRESSURE PORT MEDIA COMPATIBILITY:** LIQUID AND GASES COMPATIBLE WITH PTFE PENETRATED, ANODIZED ALUMINUM SENSOR MANIFOLD; 316 SSSL SENSOR.

**PRESSURE PORT VOLUME DATA:**  
 LP DISTANCE TO DIAPHRAGM (-A- TO -B-): 0.88" [22.4]  
 LP VOLUME: 0.13 CUBIC INCHES  
 HP DISTANCE TO DIAPHRAGM (-A- TO -B-): 0.70" [17.8]  
 HP VOLUME: 0.06 CUBIC INCHES

**CURRENT (mA) INPUT:** 0 - 55mA

**CURRENT INPUT ACCURACY:** ±(0.025% OF READING + 0.001mA)

**CURRENT RESOLUTION:** 0.001 mA

**ELECTRICAL INTERFACES:**  
 mA: 4mm DIAMETER SHIELDED BANANA JACKS, 0.75" SPACING  
 USB: MICRO-USB TYPE AB CONNECTOR

**POWER:** DURACELL ALKALINE 9V, MN 1604  
 EVEREADY ENERGIZER ALKALINE 9V, 522  
 EVEREADY ENERGIZER ALKALINE 9V, L522  
 VARTA HIGH ENERGY ALKALINE 9V, 4922

USE OF ANY OTHER BATTERY voids INTRINSIC SAFETY RATINGS

**OPERATING AND COMPENSATED TEMPERATURE RANGE:** 0°C TO +50°C (32°F TO 122°F).

**STORAGE TEMPERATURE RANGE:** -20°C TO +70°C (-4°F TO 158°F).

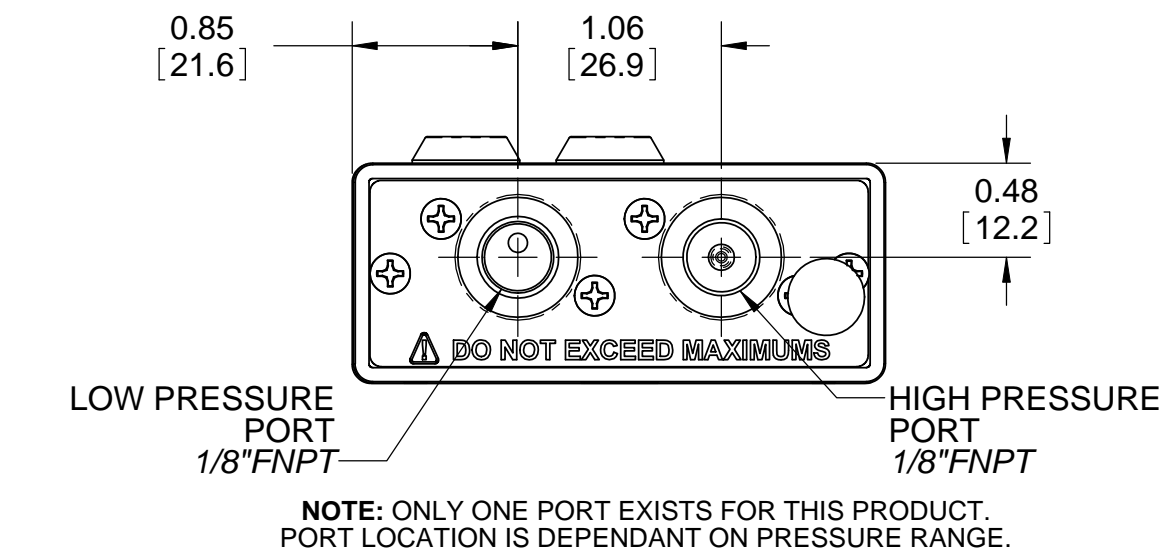
**ENCLOSURE:** ALUMINUM, POLYCARBONATE BATTERY CASE

**WEIGHT:** 12.0 oz (342 g), UP TO 600 PSI  
 13.0 oz (360 g), 1500 PSI AND UP  
 15.0 oz (428 g), WITH SPSS MANIFOLD

**CERTIFICATIONS:**  
 ATEX: II 2G Ex ia IIC T4 Gb  
 IECEx SCHEME: II 2G Ex ia IIC T4 Gb

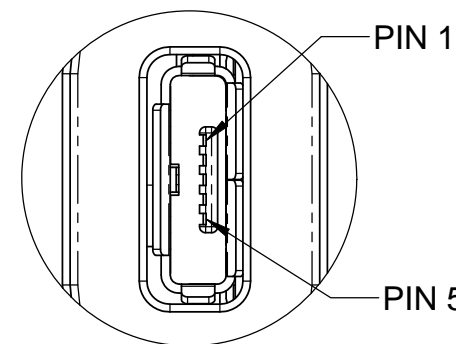
DIMENSIONS ARE IN INCHES [MILLIMETERS]

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



**CONNECTOR PINOUT**

PIN	FUNCTION
1	VBUS
2	D-
3	D+
4	NC
5	GROUND



**DETAIL A  
SCALE 4 : 1**

**PRESSURES AND RESOLUTIONS**

AVAILABLE PRESSURES					AVAILABLE UNITS AND DISPLAY RESOLUTIONS												
PRESSURE PORT		PSI (1)	bar (2)	kPa (3)	ALLOWED OVERPRESSURE	PSI	kg/cm2	inHg	inH2O	mmHg	cmH2O	mmH2O	kPa	MPa	mbar	bar	
		LP	16	1	100	6.5X	0.001	0.0001	0.001	0.01	0.01	0.01		1	0.01		0.1
36	2		200	3X	0.001	0.0001	0.001	0.01	0.01	0.01		1	0.01		0.1	0.0001 (4)	
300	20		2000	2X	0.01	0.001	0.01	0.1	0.1	1			0.1		1	0.001	
600	40		4000	2X	0.01	0.001								0.1	0.0001		0.001
HP	1500		100	10000	2X	0.1	0.01							1	0.001		0.01
	3000		200	20000	1.5X	0.1	0.01							1	0.001		0.01
	5000		300	30000	1.5X	0.1	0.01							1	0.001		0.01

- (1) PSI VERSIONS WITH RANGES OF 36 PSI AND LOWER INCLUDE ALL POSSIBLE SCALES EXCEPT BAR
- (2) BAR VERSIONS WITH RANGES OF 2 BAR AND LOWER INCLUDE ALL POSSIBLE RANGES EXCEPT inHg, cmH2O AND MPa.
- (3) KPA VERSIONS ARE RESTRICTED TO kPa, MPa, bar AND/OR mbar, DEPENDING ON PRESSURE RANGE.
- (4) APPLIES TO bar AND kPa ONLY

**VACUUM AND RESOLUTIONS**

APPLICABLE PRESSURES			AVAILABLE UNITS AND DISPLAY RESOLUTIONS									
PSI	bar	kPa	PSI	kg/cm2	inHg	inH2O	mmHg	cmH2O	mmH2O	kPa	mBar	bar
16	1	100	0.001	0.0001	0.001	0.01	0.01			1	0.01	0.1
36	2	200	0.001	0.0001	0.001	0.01	0.01			1	0.01	0.1
300	20	2000	0.01	0.001	0.01	0.1	0.1	1		0.1		0.001

**PROPRIETARY NOTICE**  
 THIS DOCUMENT AND ANY DATA DISCLOSED HEREIN IS THE SOLE PROPERTY OF CRYSTAL ENGINEERING CORPORATION AND MAY NOT BE REPRODUCED, USED OR DISCLOSED IN PART OR IN WHOLE, TO ANYONE WITHOUT THE WRITTEN CONSENT OF CRYSTAL ENGINEERING CORPORATION.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE:  
 FRACTIONS DECIMALS ANGLES  
 .XXX ± .005  
 .XXXX ± .001

**CRYSTAL** (805) 595-5477  
 engineering corporation www.crystallengineering.net

**IS31 SERIES CALIBRATOR**

APPROVALS	DATE
DRAWN M.J.Cain	9/14/10
CHECKED	
MFG. ENGR.	
Q.A.	

SCALE: 1:1    SIZE **C**    DRAWING NO. **4538**    REV **A**

DO NOT SCALE DRAWING    SHEET 1 OF 1