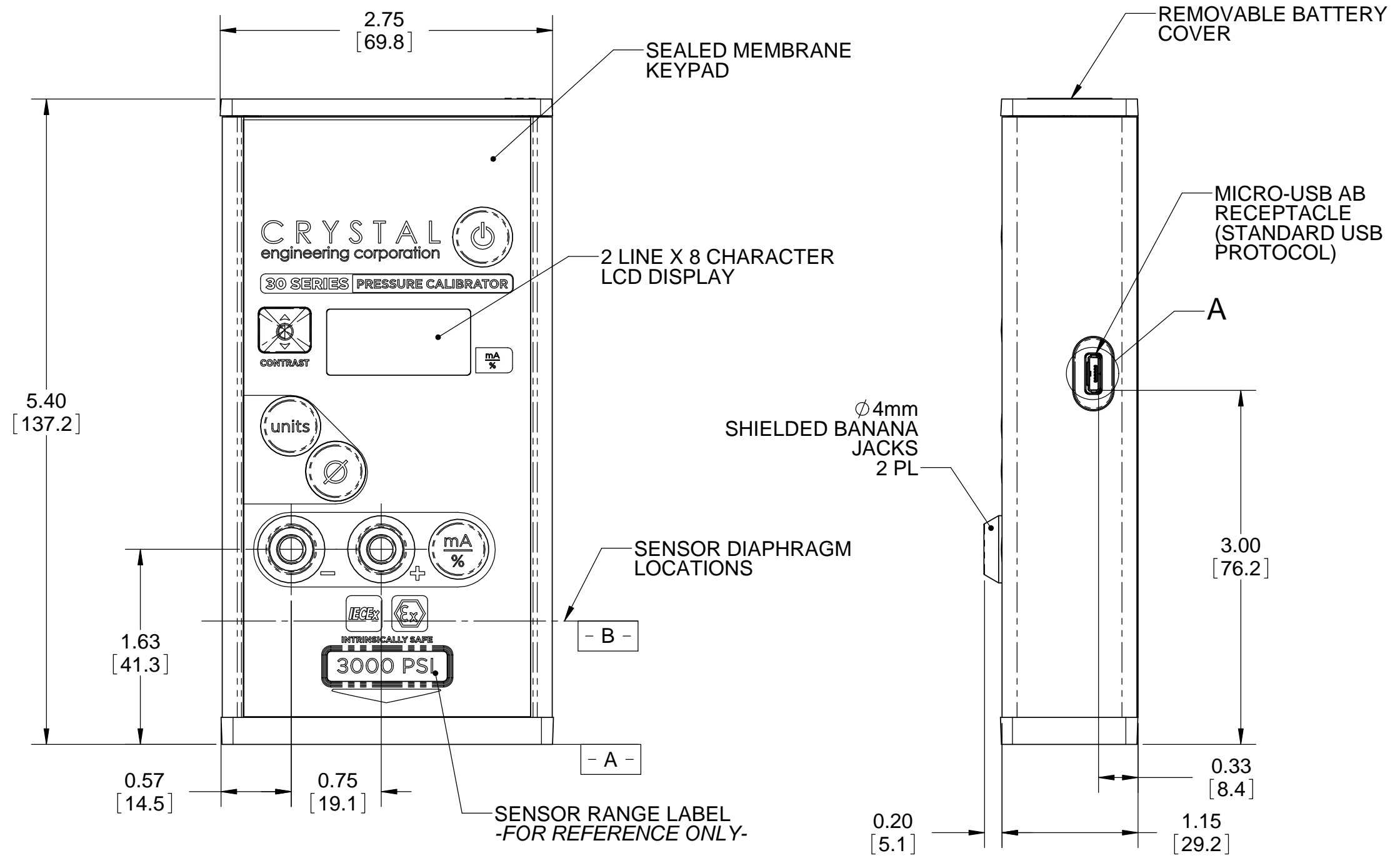


REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	12/28/10	ON FILE
B	REMOVED 600 PSI RANGE	3/29/2012	ON FILE



**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 COMPATABILITY:** LIQUID AND GASES COMPATIBLE WITH PTFE PENETRATED, ANODIZED ALUMINUM SENSOR MANIFOLD; 316 SSTL 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

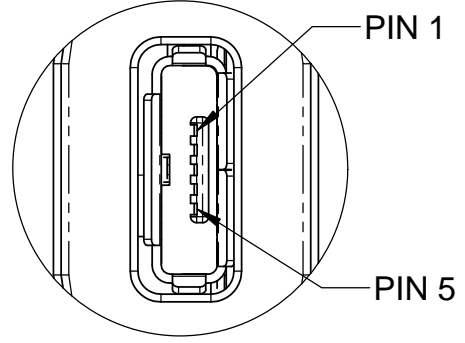
**WEIGHT:** 12.0 oz (342 g), UP TO 300 PSI  
 13.0 oz (360 g), 1500 PSI AND UP  
 15.0 oz (428 g), WITH SPSS MANIFOLD

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

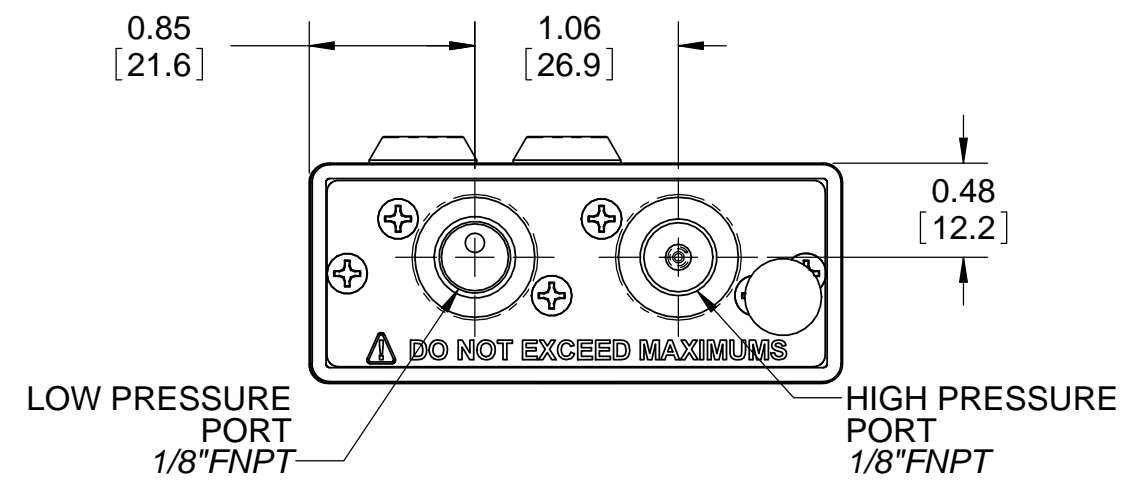
DIMENSIONS ARE IN INCHES [MILLIMETERS]  
 SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

**CONNECTOR PINOUT**

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



**DETAIL A SCALE 4 : 1**



**NOTE:** ONLY ONE PORT EXISTS FOR THIS PRODUCT. PORT LOCATION IS DEPENDANT ON PRESSURE RANGE.

**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	
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

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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 D.Porter	12/20/10
MFG. ENGR. G.Johnson	12/28/10
Q.A. J.White	12/28/10

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

DO NOT SCALE DRAWING SHEET 1 OF 1