

### Dynamic Transducers and Systems

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# OPERATING GUIDE MODEL 4115B

# AC-DC COUPLED LIVM <sup>tm</sup> POWER UNIT WITH BNC SENSOR CONNECTOR

#### NOTE:

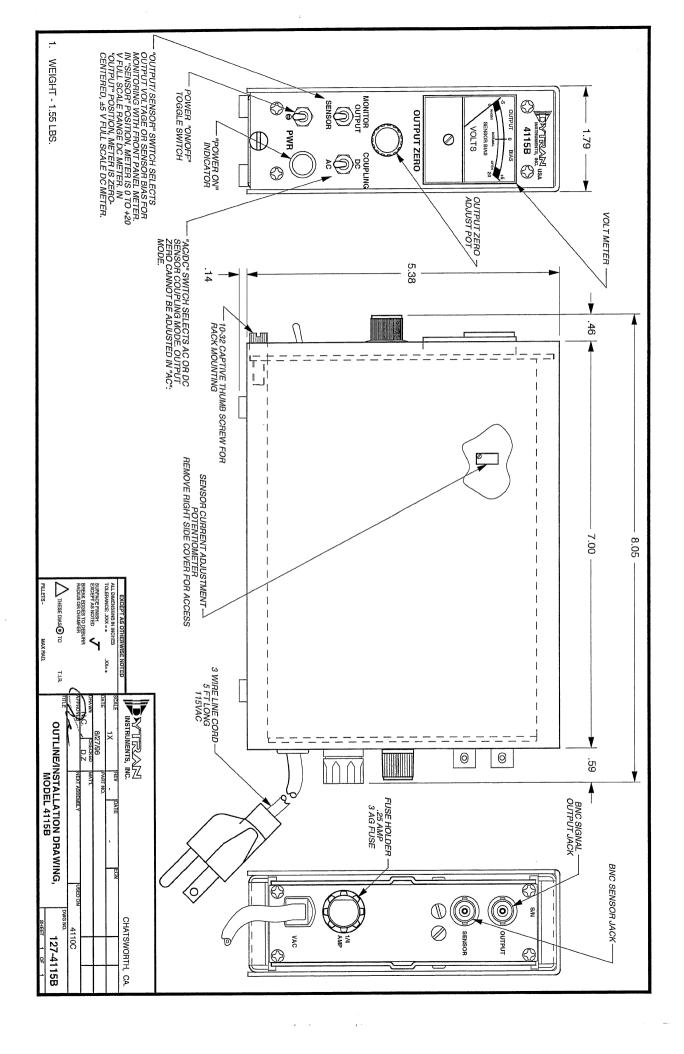
Model 4115B is an updated version of Model 4115. The 10-32 sensor connector on Model 4115 has been replaced by a BNC jack on Model 4115B. All other features and specifications are similar. Model 4115B supplies power to operate Low Impedance Voltage Mode sensors and provides two switch-selected sensor coupling modes;

- 1) Direct coupled with adjustable output bias and,
- 2) AC coupled with zero Volts output bias.

#### Included with this manual:

- 1) Operating Instructions, Model 4115B,
- 2) Drawing 129-0027, adjustment pot locations,
- 3) Paper, "Low Impedance Voltage Mode (LIVM) Theory and Operation".

**NOTE:** LIVM is Dytran's trademark for its line of Low Impedance Voltage Mode sensors with built in amplifiers operating from constant current sources over two wires. LIVM instruments are compatible with most other manufacturers' comparable systems.



### SPECIFICATIONS, MODEL 4115B AC/DC COUPLED LIVM POWER UNIT

SPECIFICATION	VALUE	UNITS
VOLTAGE GAIN @1 kHz	1.000 ±0.2% (UNITY)	
FREQUENCY RESPONSE, ±5 V OUTPUT LEVEL [1] AC COUPLING MODE DC COUPLING MODE	1 TO 100K DC TO 100K	Hz Hz
OUTPUT VOLTAGE SWING, MAX.	±6	VOLTS
OUTPUT CURRENT, PEAK	±15	mA
OUTPUT IMPEDANCE	2	OHMS
OUTPUT NOISE, BROADBAND, TYP	200	μV, RMS
SENSOR SUPPLY CURRENT RANGE [2]	2 TO 20	mA
COMPLIANCE VOLTAGE	+20	VDC
SENSOR BIAS RANGE FOR DC NULLING	+9 TO +13	VDC
COUPLING TC, AC MODE	.5	Hz
FRONT PANEL VOLTMETER F.S. RANGE "SENSOR" POSITION "OUTPUT" POSITION	0 TO +20 ±5	VDC VDC
SENSOR & OUTPUT CONNECTORS	BNC	JACKS
AC POWER REQUIRED 115/230 VAC/50-60 Hz [3]	2.7	VA
POWER CORD, 3-WIRE	6	FT.
SIZE (H x W x D)	5.5 x 1.8 x 7.75	IN.
RACK MOUNT DIMENSIONS (H x W x D) [4]	5.25 x 1.6 x 7.75	IN.
WEIGHT	2	LBS.

#### NOTES

- [1] OUTPUT LOAD, 330 OHMS, 1000 pF.
- [2] SENSOR CURRENT ADJUSTABLE, 2 TO 20 mA, FACTORY SET AT 5 mA.
- [3] STANDARD VERSION IS 115 VAC, 50-60 Hz. 230 VAC VERSION, USE 'E' PREFIX TO MODEL NUMBER.
- [4] RACK MOUNTABLE IN MODEL 4200 19" WIDE RACK. HOLDS UP TO 10 4115'S.