



1. Body Material: 304L CRES
2. Weight: 43 grams nominal

<b>EXCEPT AS OTHERWISE NOTED</b>	
ALL DIMENSIONS IN INCHES TOLERANCE: XXX = ± .005 .XX = ± .01	
SURFACE FINISH EXCEPT AS NOTED	63/√
BREAK EDGES TO DEBURR RADIUS OR CHAMFER	
FILLETS:	MAX R

<b>DYTRAN</b> INSTRUMENTS, INC.		CHATSWORTH, CA	
SCALE 2:1	REV -	DATE -	ECN -
DATE 2/16/2004	PART NO. MODEL 2005V		
DRAWN PML	CHECKED	MATERIAL	
APPROVED	NEXT ASSEMBLY		USED ON 2005V
TITLE <b>OUTLINE DRAWING, MODEL 2005V</b>			DWG NO. 127-2005V
SHEET 1 OF 1			



## SPECIFICATIONS MODEL 2005V DYNAMIC PRESSURE SENSOR

SPECIFICATION	VALUE	UNITS
<b>PHYSICAL</b>		
WEIGHT	43	grams
SIZE (HEX x HEIGHT)	.625 x 2.0	inches
	15.9 x 52	mm
MOUNTING PROVISION	1/8-27 NPT Male Thread	
CONNECTOR, AXIALLY MOUNTED AT TOP	TNC Jack	
DIAPHRAGM MATERIAL	Stainless Steel	
<b>PERFORMANCE</b>		
SENSITIVITY, $\pm 10\%$	100	mV/psi
RANGE F.S. FOR +5 VOLTS OUT	+50	psi
MAXIMUM PRESSURE	1000	psi
MOUNTED RESONANT FREQUENCY, NOM.	90	kHz
MINIMUM RISE TIME OF INPUT PRESSURE PULSE	2	$\mu$ sec
EQUIVALENT ELECTRICAL NOISE FLOOR (RESOLUTION)	.0007	psi
LINEARITY [1]	$\pm 1$	% F.S.
ACCELERATION SENSITIVITY, AXIAL DIRECTION	.002	psi/g
DISCHARGE TIME CONSTANT	0.16	sec
LOWER -3db FREQUENCY	1.0	Hz
<b>ENVIRONMENTAL</b>		
MAXIMUM VIBRATION	3000	g rms
MAXIMUM SHOCK	10,000	g pk
TEMPERATURE RANGE	-100 to +275	$^{\circ}$ F
	-73 to +135	$^{\circ}$ C
MAXIMUM FLASH TEMPERATURE AT DIAPHRAGM	+3000	$^{\circ}$ F
	+1600	$^{\circ}$ C
THERMAL COEFFICIENT OF SENSITIVITY	0.01	%/ $^{\circ}$ F
	0.02	%/ $^{\circ}$ C
ENVIRONMENTAL SEAL	Hermetic	
	Welded / Glass to Metal	
POWER /SIG GND ISOLATION	10M $\Omega$ min @ 50VDC	
<b>ELECTRICAL</b>		
EXCITATION (COMPLIANCE) VOLTAGE RANGE	+18 to +30	Vdc
EXCITATION CURRENT RANGE [2]	+2 to +20	mA
OUTPUT IMPEDANCE, NOM.	100	$\Omega$
OUTPUT BIAS VOLTAGE, NOM	+10	Vdc
OUTPUT SIGNAL POLARITY FOR INCREASING PRESSURE	Positive Going	

**NOTES:**

- [1] PERCENT FULL SCALE, ZERO BASED BEST FIT STRAIGHT LINE METHOD.
- [2] FROM CONSTANT CURRENT TYPE POWER UNIT ONLY. THIS SENSOR **MUST NOT BE CONNECTED** TO A DC POWER SOURCE WITHOUT CURRENT LIMITING, 20 mA MAXIMUM.
- [3] A CALIBRATION CERTIFICATE TRACEABLE TO NIST IS SUPPLIED WITH EACH INSTRUMENT.