



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

EXCEPT AS OTHERWISE NOTED

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

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



SPECIFICATIONS MODEL 2005V DYNAMIC PRESSURE SENSOR

SPECIFICATION	VALUE	UNITS
PHYSICAL		
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	
PERFORMANCE		
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	μ sec
EQUIVALENT ELECTRICAL NOISE FLOOR (RESOLUTION)	.0007	psi
LINEARITY [1]	± 1	% F.S.
ACCELERATION SENSITIVITY, AXIAL DIRECTION	.002	psi/g
DISCHARGE TIME CONSTANT	0.16	sec
LOWER -3db FREQUENCY	1.0	Hz
ENVIRONMENTAL		
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 Ω min @ 50VDC	
ELECTRICAL		
EXCITATION (COMPLIANCE) VOLTAGE RANGE	+18 to +30	Vdc
EXCITATION CURRENT RANGE [2]	+2 to +20	mA
OUTPUT IMPEDANCE, NOM.	100	Ω
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.