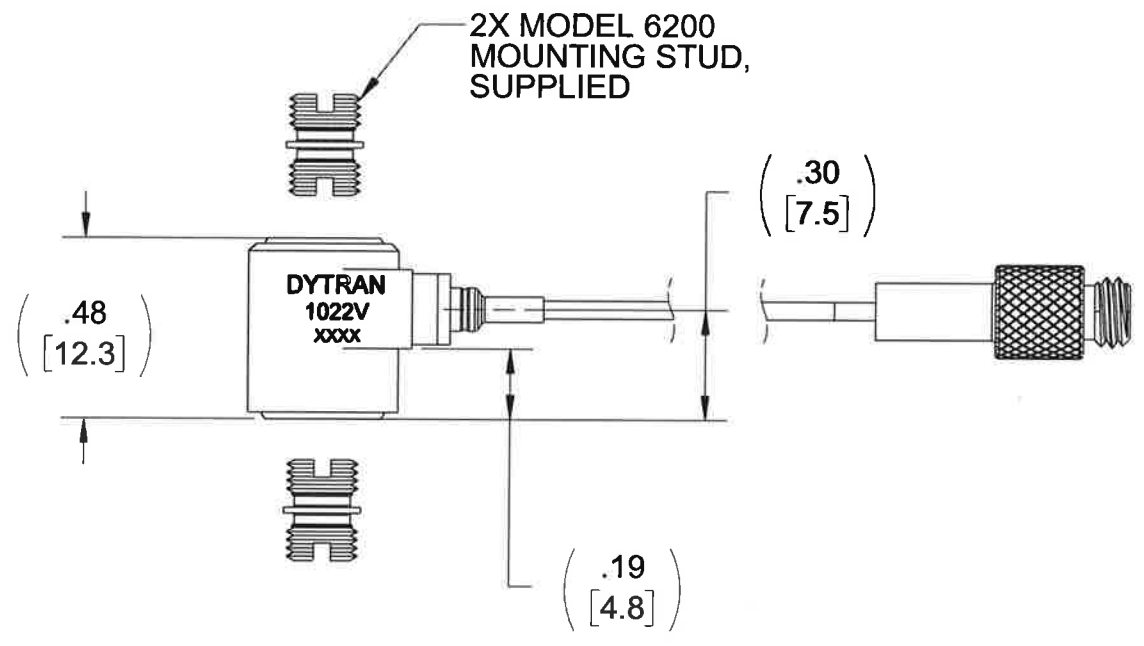
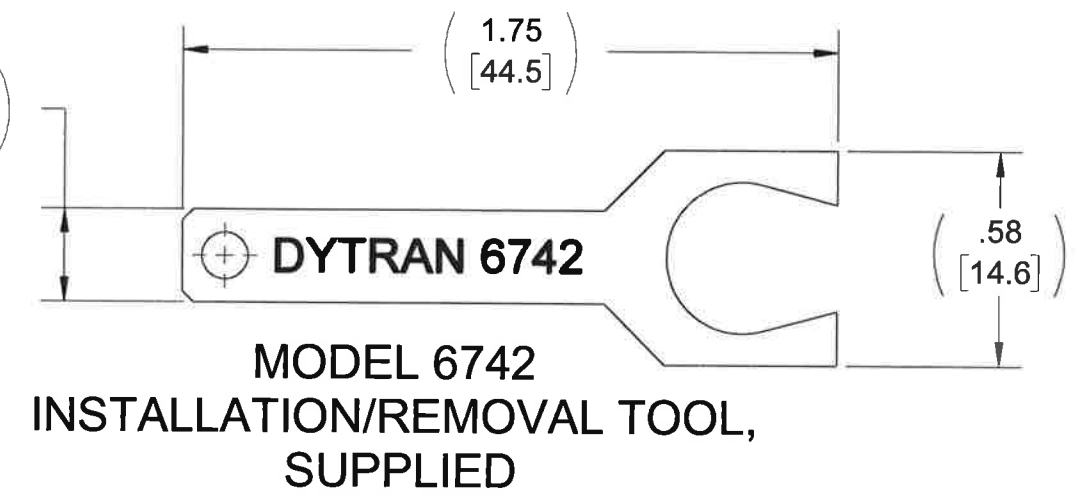
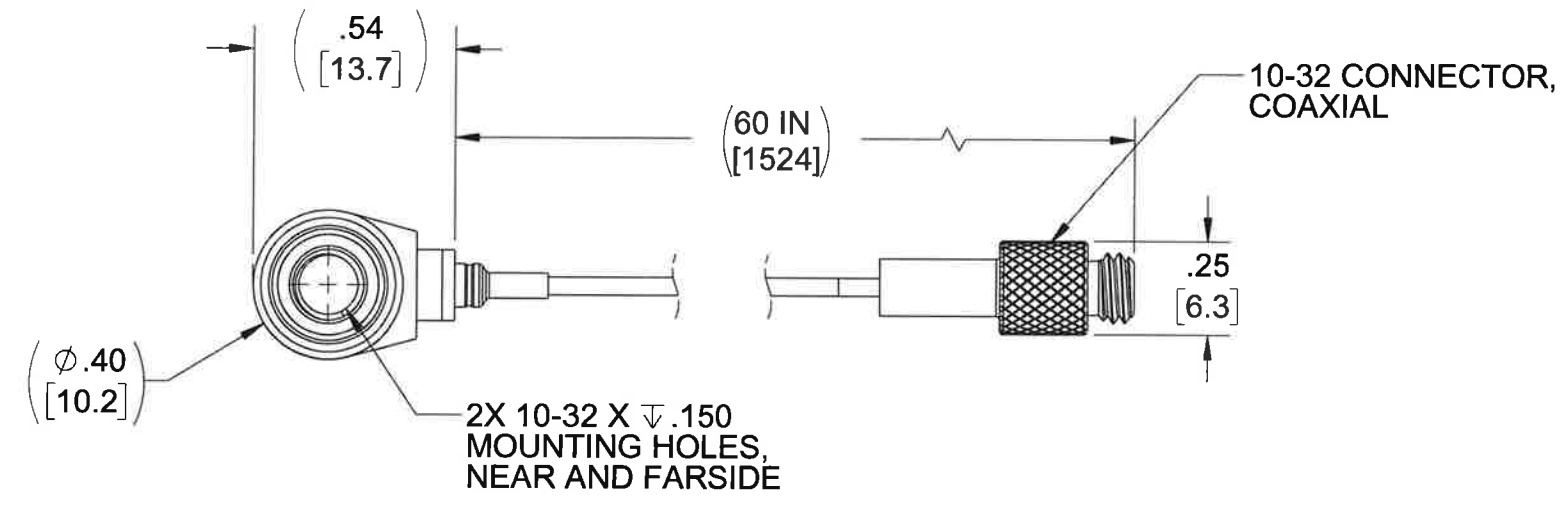


DWG NO 127-1022V		SH 1	REV C	REVISIONS		
REV.	ECN	DESCRIPTION	BY/DATE	CHK	APPR	
C	13251	REDRAWN ON SOLIDWORKS WITH CHANGES	RA, 02/08/17	LA	LW	

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DYTRAN INSTRUMENTS INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF DYTRAN INSTRUMENTS INC. IS PROHIBITED



4 COAX, LOW NOISE, LOW OUT GASSING	
TEMPERATURE RATING	-90°C TO +200°C [-130°F TO +392°]
JACKET	OUTER WRAPPED AND SINTERED PTFE
DIAMETER, INNER CONDUCTOR	0.189mm [.007in] NOM
CABLE DIAMETER	1.22mm±0.10mm [.048 ±.004]
INNER CONDUCTOR	STRANDED SILVER PLATED COPPER ALLOY, AWG34 OR 7 X 0.063mm [.002in] NOM.
OUTER CONDUCTOR	SILVER PLATED COPPER BRAIDED SHIELD. STRAND DIAMETER: 0.063mm [.002 in] NOM. COVERAGE: 90% NOM.
CROSS SECTION	0.022mm² [.0009 in] NOM
RESISTANCE	98 OHMS/100M NOM @20°C [68°F]
DIELECTRIC	EXTRUDED PTFE DIELECTRIC WITH GRAPHITE LAYER. DIAMETER: 0.52mm [.02 in] NOM
COLOR	ORANGE
COATING	TETRA ETCH
APPROX WEIGHT	3.60G/M [.042 OZ/FT]
IMPEDANCE	50 OHMS NOM
CAPACITANCE	97 pF/m NOM.
LOW OUTGASSING	MEETS ASTM E 595-88/84/90, TML <1.0%, CVCM < 0.10%

- 5. OPERATIONAL TEMPERATURE OF SENSOR: -100°F [-73°C] TO 250°F [121°C]
 - 4 SEE TABLE FOR CABLE SPECIFICATIONS.
 - 3. WEIGHT: LESS CABLE, 4.5 GRAMS MAX
 - 2. NOMINAL SENSITIVITY: 100mV/Lb. COMPRESSION PRODUCES POSITIVE-GOING OUTPUT VOLTAGE
 - 1. HOUSING AND LOAD BEARING SURFACES ARE TITANIUM ALLOY.
- NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES. DIMENSIONS IN BRACKETS [] ARE IN MILLIMETERS. TOLERANCES ARE:

DECIMALS	METRIC	ANGLES
.XX ±.03	.X ± 0.8	± 1°
.XXX ±.010	.XX ±0.25	

APPROVALS: ORIG NC 07/22/09, CHK EP 10/29/10, APP DV 11/01/10

DO NOT SCALE DRAWING

THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED: 63/ TOTAL RUNOUT WITHIN .005. BREAK SHARP EDGES .005 TO .010. MACHINED FILLET RADII .005 TO .015. WELDING SYMBOLS PER AWS A2.4. ABBREVIATIONS PER MIL-STD-12.

MASTER INSTRUMENTS, INC. Chatsworth, CA

TITLE: **OUTLINE/INSTALLTION DRAWING, MODEL 1022V IEPE FORCE SENSOR**

SIZE	CAGE CODE	DWG NO	REV
B	2W033	127-1022V	C

SCALE: 2:1 SHEET 1 OF 1

Model Number 1022V	PERFORMANCE SPECIFICATION	Doc No PS1022V
	MINIATURE LOW MASS IEPE FORCE SENSORS	REV C, ECN 11370, 10/20/14



- **MINIATURE DYNAMIC FORCE SENSOR**
- **LOW MASS**
- **EXCELLENT LINEARITY**

	ENGLISH		SI	
PHYSICAL				
Weight (less cable)	0.16	oz	4.50	grams
Size Height X Diameter	0.49 x 0.40	Inches	12.44 x 10.16	mm
Connector [1]	10-32		10-32	
Housing	Type		Ti 6Al-4V	
	Material		Ti 6Al-4V	
Mounting Provision	Material		Ti 6Al-4V	
	Isolation	Case grounded		Case grounded
Sensing Element			[2]	
	Material	Quartz		Quartz
	Mode	Compression		Compression
PERFORMANCE				
Sensitivity, ± 10 %	100	mV/LbF	22.5	mV/N
Range, Full Scale	± 50	LbF	± 222	N
Stiffness	26	Lb/μin	2039	kN/μm
Linearity [3]	± 1	% Full Scale	± 1	% Full Scale
Max Shock, Unloaded	5000	g's	5000	g's
Max Vibration, Unloaded	± 2500	g's	± 2500	g's
Mounted Resonant Frequency, Unloaded	50	kHz	50	kHz
Noise Resolution	0.0004	LbF rms	0.0018	N rms
Strain Sensitivity @250/μσ	0.006	LbF/με	0.027	N/με
Transverse Sensitivity, Max	5	%	5	%
ELECTRICAL				
Supply Current Range [4]	2 to 20	mA	2 to 20	mA
Compliance Voltage Range	18 to 30	Volts	18 to 30	Volts
Output Impedance, Typ	150	Ω	150	Ω
Bias Voltage	+7.5 to +9.5	VDC	+7.5 to +9.5	VDC
Discharge Time Constant	>100	Sec	>100	Sec
F.S.Output Voltage, Nom	5	Volts, peak	5	Volts, peak
Output Signal Polarity	Compression	Positive		Positive
	Tension	Negative		Negative
ENVIRONMENTAL				
Operating Temperature	-100 to +250	°F	-73 to +121	°C
Environmental Seal	Welded/Epoxy		Welded/Epoxy	

This family also includes:

Model	Sensitivity (mV/LbF)	Range (LbF)	Linearity (% Full Scale)	Oper. Temp(°F)

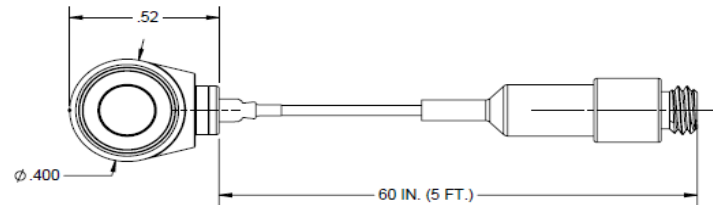
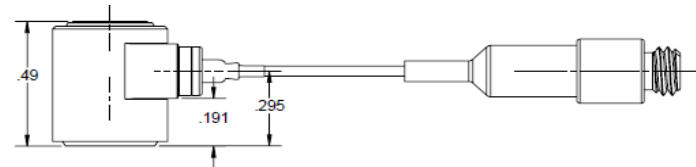
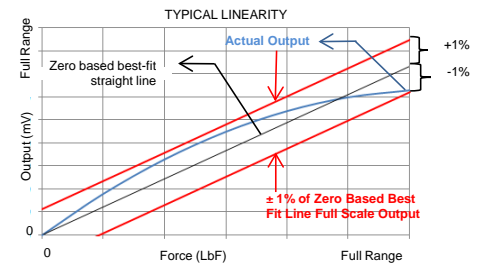
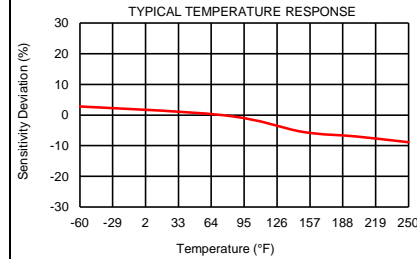
Refer to the performance specifications of the products in this family for detailed description

Supplied Accessories:

- 1) Accredited calibration certificate (ISO 17025)
- 2) Model # 6200 Be Cu Mounting Stud (2)
- 3) 6742 Removal tool

Notes:

- [1] Connector mounted at end of 5 FT integral cable
- [2] 10-32 tapered hole at top and bottom
- [3] Percent of full scale or of any lesser range, zero based best fit straight line method.
- [4] Do not apply power to this unit without current limiting, 20 mA MAX. To do so will destroy the IC charge amplifier.
- [5] In the interest of constant product improvement, we reserve the right to change specifications without notice.



Units on the line drawing are in inches, Refer to 127-1022V for more information.



21592 Marilla Street, Chatsworth, California 91311 Phone: 818.700.7818 Fax: 818.700.7880 www.dytran.com
 For permission to reprint this content, please contact info@dytran.com