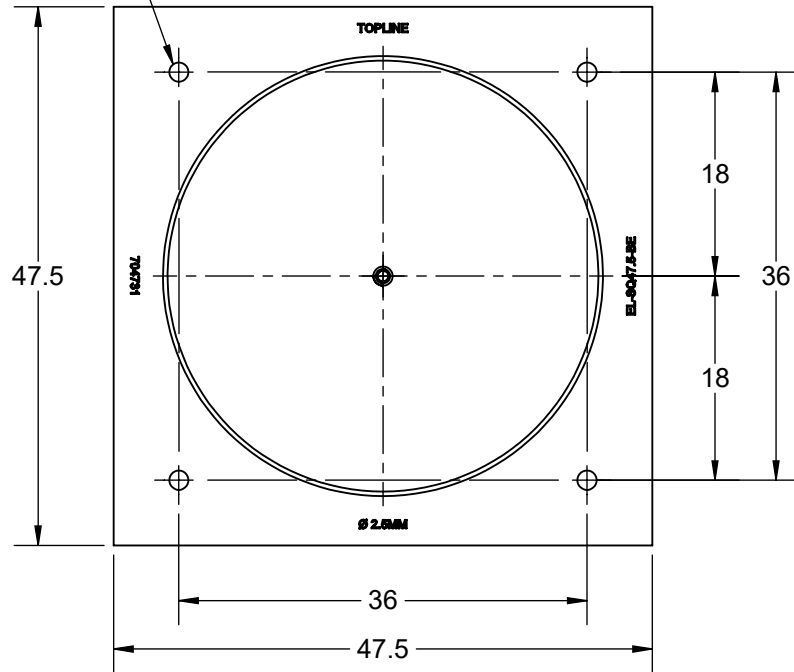


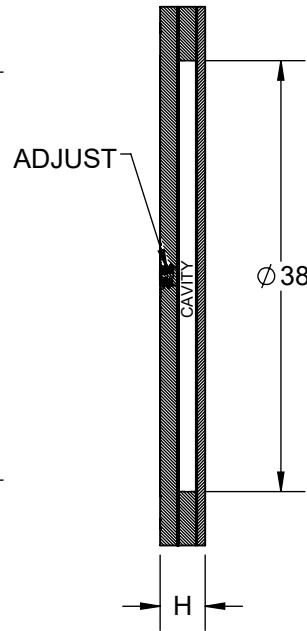
STYLE FS
SCREW HOLE
OPTIONAL

TOP

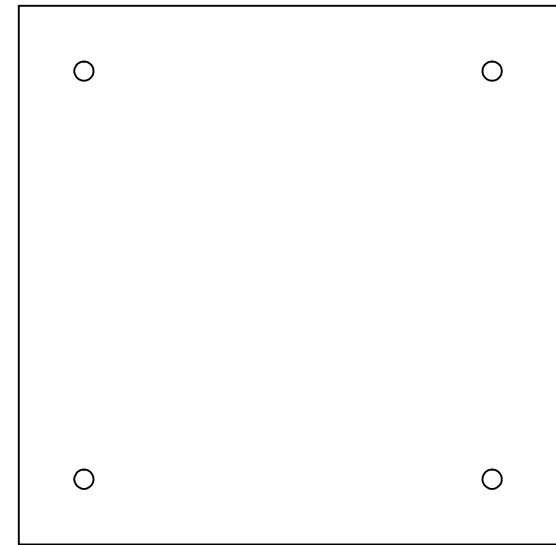


SCREW OPTIONAL

SIDE

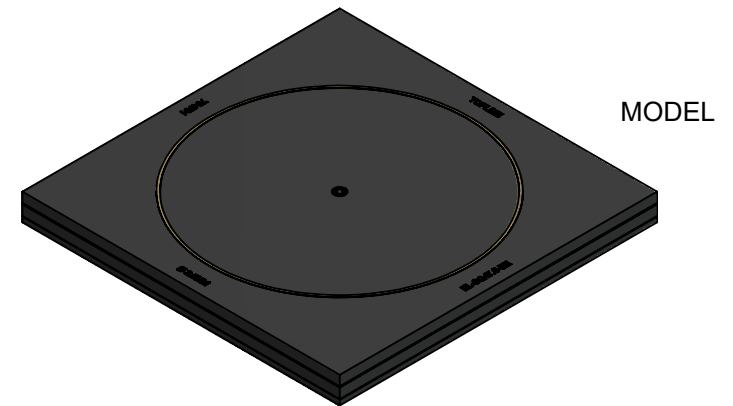


**BOTTOM
(NOTE 2)**



DIMENSION AND WEIGHT (MASS) TABLE

H HEIGHT ±0.5 mm	PCB MASS	TUNGSTEN BALLS IN CAVITY				Total PID MASS	SCREW ADJUST	SCREW HEX HEAD
		∅ DIA	Per Ball	QTY	Mass			
5.0mm	210g	2.3mm	0.102g	~206	21g	37g	6-32	1/16
7.5mm	240g	2.5mm	0.143g	~168	24g	50g	6-32	1/16
8.0mm	280g	3.0mm	0.248g	~116	28g	56g	8-32	5/64
9.0mm	370g	4.0mm	0.587g	~64	37g	72g	10-32	3/32
13mm	450g	5.0mm	1.146g	~40	45g	96g	1/4-28	1/8



NOTES: (Unless Otherwise Specified).

1) DIMENSIONS mm

APPLICATION NOTES:

Contact TopLine for help to select
the best PID for your application.

NOTES 2 MOUNTING STYLE

2= SCREW (FS)

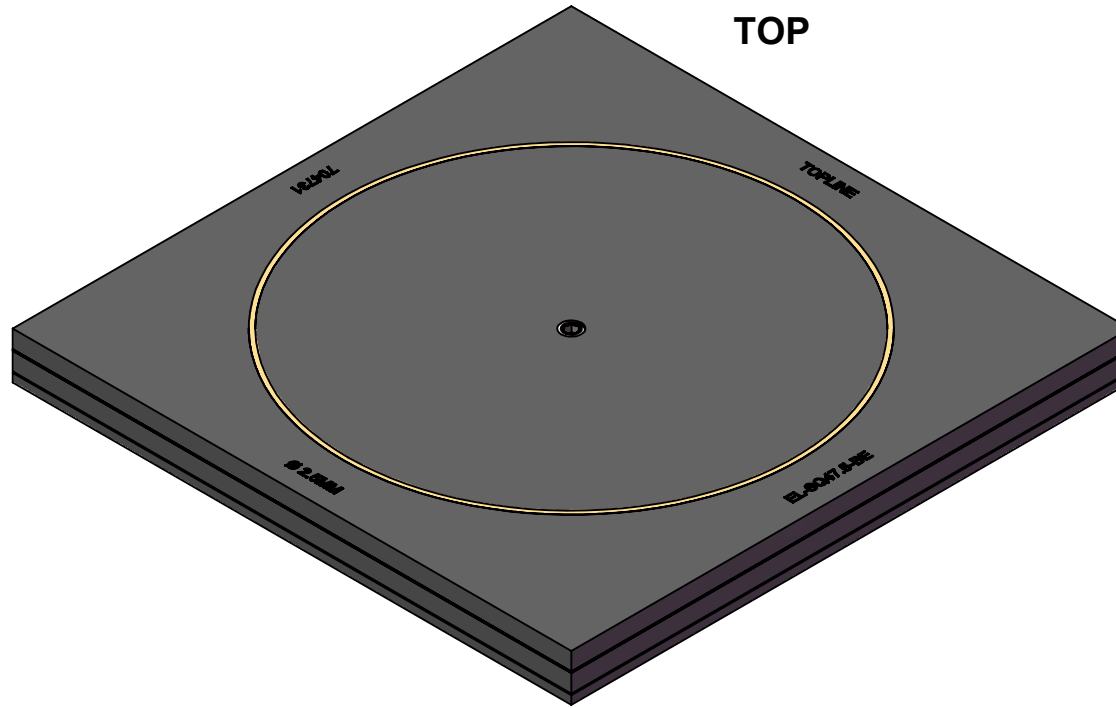
3= ADHESIVE (FA)

PATENTS THAT MAY APPLY ON PAGE 4

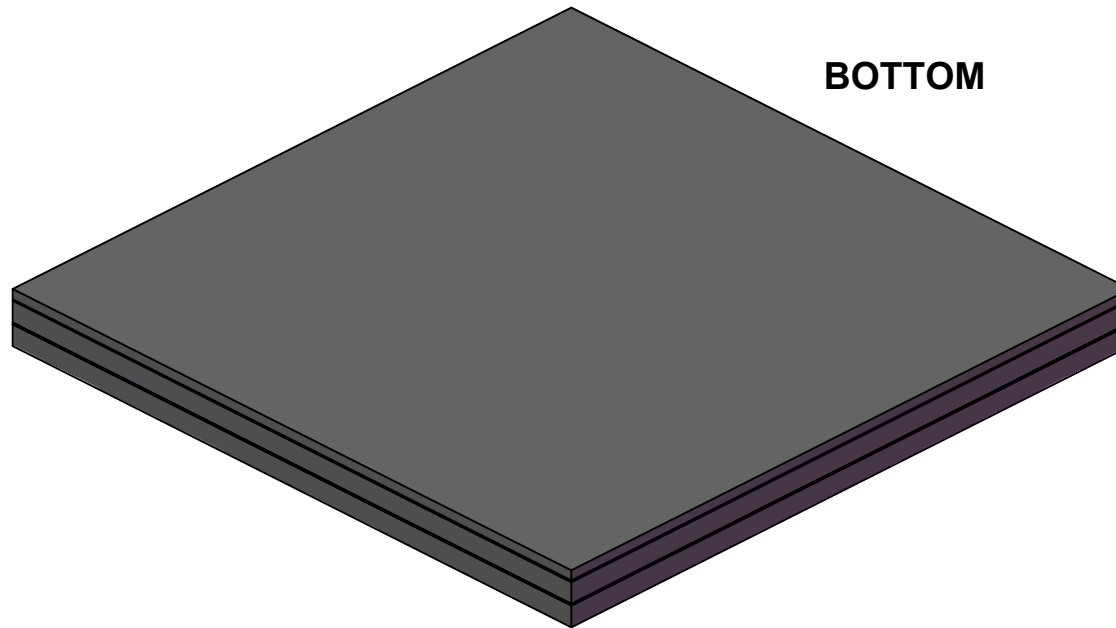
APPROVALS	DATE	TopLine®			
DRAWN T. Au	7/18/2021				
ENG M. Hart	7/18/2021	TITLE EL-SQ47.5-BE PID VIBRATION DAMPER			
MFG		SCALE	SIZE	DRAWING NO.	REV
QA		2.5:1	A	704731	A
CUST		DO NOT SCALE DRAWING			SHEET 1 OF 4
REVISED					

MODELS

TOP



BOTTOM



**STYLE FA
ADHESIVE
(GLUE)**

TopLine®

TITLE EL-SQ47.5-BE
PID VIBRATION DAMPER

SCALE 2.5:1	SIZE A	DRAWING NO. 704731	REV A
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DO NOT SCALE DRAWING

SHEET 2 OF 4

PART NUMBER SYSTEM

<u>F</u>	<u>A</u>	<u>24</u>	<u>SQ</u>	<u>47.5X</u>	<u>7.5</u>	<u>A</u>
Series	Mounting on PCB	Tungsten Payload Grams (Mins.)	Shape	X/Y Size	Height	Version/Option
Filled F = FR4 Case A = Al Case Empty E = FR4 Case L = Al Case	Mounting Style A = Adhesive S = Screw Fastener	Code • Grams 21 = 21gm 24 = 24gm 28 = 28gm 37 = 37gm 45 = 45gm Other Mass Available	Code • Shape SQ = Square R = Rectangle C = Cylindrical T = Toroid Z = Custom	Code Size 47.5X = 47.5mm SQ Other Sizes Available	Code Height 5.0 = 5.0mm 7.5 = 7.5mm 8.0 = 8.0mm 9.0 = 9.0mm 13 = 13mm Other Sizes Available	Code Version A Standard Other Version Available

ORDER NUMBER

<u>1</u>	<u>3</u>	<u>024</u>	<u>1</u>
DESCRIPTION	Mount syle	Mass (gram)	Option Code
Code • Description 1 = Filled PID 5 = Eng Dev Kit 7 = Empty Pkg	Code • Description 2 = Screw (S) 3 = Glue (A) 9 = Custom 0 = Master DWG	Code • Grams 021 = 21gm 024 = 24gm 028 = 28gm 037 = 37gm 045 = 45gm	1 Version A 2 Version B 3 Version C ... 9 Version J

TopLine®			
TITLE EL-SQ47.5-BE PID VIBRATION DAMPER			
SCALE NONE	SIZE A	DRAWING NO. 704731	REV A
DO NOT SCALE DRAWING			SHEET 3 OF 4

U.S. PATENTS PARTICLE IMPACT DAMPERS

	U.S. PATENT NBR	GRANTED	TITLE
1	9,521,753	2016	Vibration damping circuit board assembly
2	10,041,558	2018	Tunable apparatus for adjusting effective performance of particle impact damper
3	10,021,779	2018	Quick response particle damper for printed circuit boards and planar surfaces
4	D842351	2019	Toroidal shaped particle impact damper
5	10,704,639	2020	Unidirectional particle damper for printed circuit boards and planar surfaces

U.S. PATENTS REGISTERED TRADEMARKS

REGISTRATION	GRANTED	MARK	GOODS & SERVICES
5,469,015	2018	Inspired by Gravity®	Class 9. Electronic components namely particle impact dampers for attenuating vibration in printed circuit boards and mechanical assemblies

TopLine®

TITLE EL-SQ47.5-BE
PID VIBRATION DAMPER

SCALE NONE	SIZE A	DRAWING NO. 704731	REV A
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DO NOT SCALE DRAWING

SHEET 4 OF 4