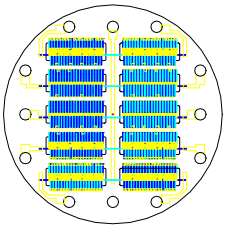
DEXTER RESEARCH CENTER, INC.



Model 10 Channel

10 Channel Thin Film Based Thermopile Detector

Technical Specifications: Specifications apply at 23°C with KBr Window and Argon encapsulating gas

Parameter	Min	Typical	Max	Symbol	Units	Comments
Active Area size		3.16 x .4		AA	mm	Hot junction size, per element.
Element Area		1.264		A	mm^2	
Number of Junctions		40				Per element.
Number of Channels		10				Per detector package.
Output Voltage	90	115	130	V_s	μV	DC, H=330μW/cm^2 (3)
Responsivity	21.6	27.6	31.2	$\Re$	V/W	DC, $\Re=V_s/HA$ (2)
Resistance	4.0	8.0	12	R	kΩ	
Temperature Coefficient of Responsivity		-.36			%/°C	Best linear fit, 0° to 85°C (1)
Temperature Coefficient of Resistance		-.2			%/°C	Best fit, 0° to 85°C (1)
Noise Voltage	8.1	11.4	14.0	V_n	nV/√Hz	$V_n^2=4kTR$
Noise Equivalent Power	.26	.42	.65	NEP	nW/√Hz	DC, NEP= $V_n HA/V_s$ (2)
Detectivity	1.7	2.7	4.3	D*	10^8cm√Hz/W	DC, $D^*=V_s/V_n H\sqrt{A}$ (2)
Time Constant		38		τ	ms	Chopped, -3dB point (1)
Field of View		NA°		FOV	Degrees	Not Applicable.
Package Type		TO-8 w/ 12 pins				Standard package hole size: ∅.438"
Element Matching		10	20	$\mathcal{M}$	%	$\mathcal{M}=\lvert V_A-V_B\rvert/V_B$ (2)
Element Separation		1.82 and 4.28			mm	Center to Center.

Notes: **(1)** Parameter is not 100% tested. 90% of all units meet these specifications. **(2)** A is detector area in cm^2.
(3) Test Conditions: 500K Blackbody source; Detector active surface 10cm from 0.6513cm Diameter Blackbody Aperture.

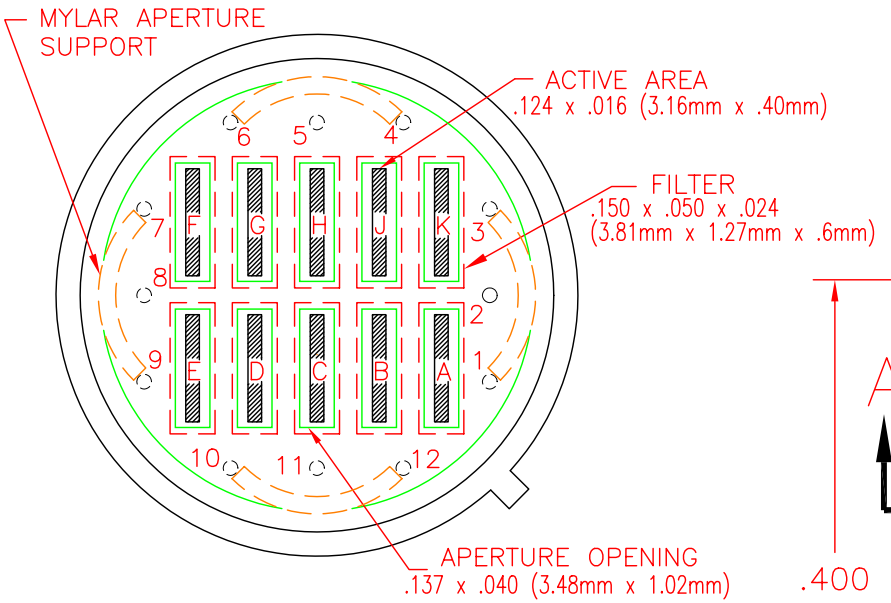
General Specifications:

- Flat Spectral Response: UV to Far IR
- Window Material: Over 100 filters in stock.
- Encapsulating Gas Options: Argon, Neon, Nitrogen, or Xenon.
- Operating Temperature Range: -50° to 85°C. Higher temperature range available.
- FOV: Dependent on Window material.
- Signal Output: Linear from 10^{-6} to .1W/cm^2
- Maximum Incidence: .1 W/cm^2

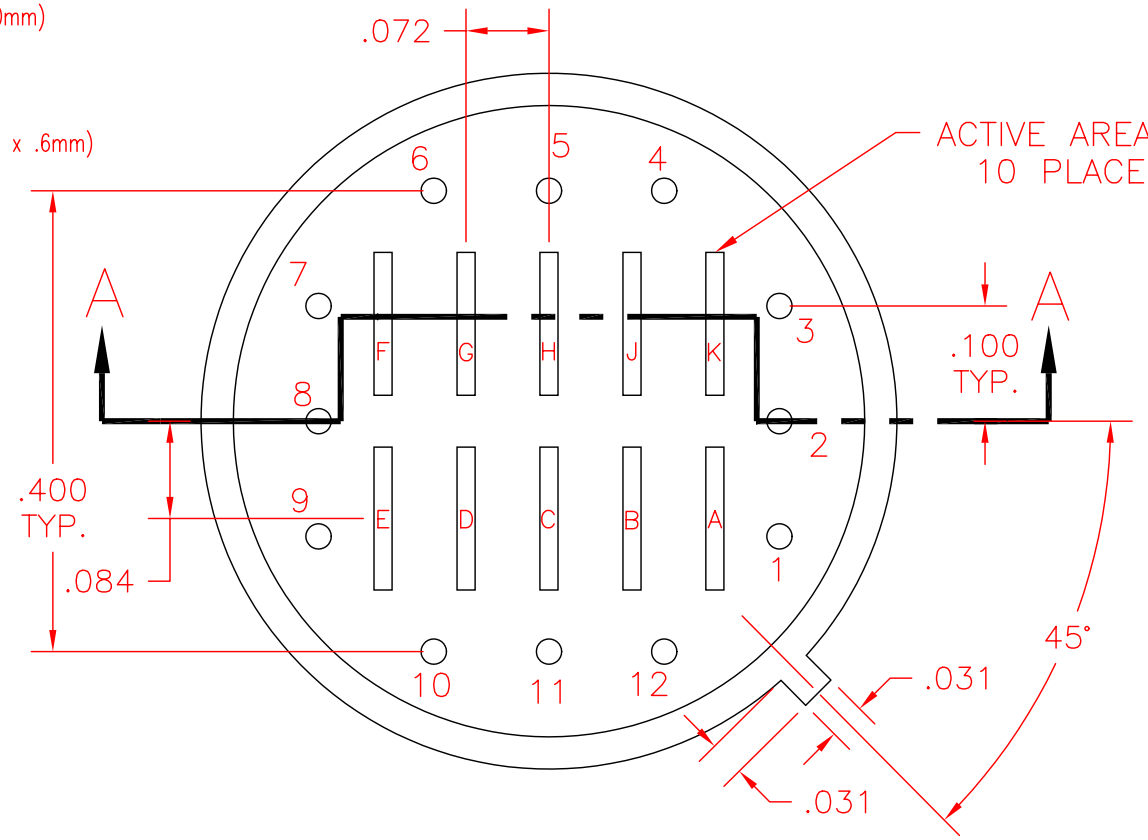
Postal Mail: 7300 Huron River Drive
Dexter, MI 48130 U.S.A.

Phone: 734-426-3921
Fax: 734-426-5090

Email: Sales@DexterResearch.com
Web: WWW.DexterResearch.com



TOP VIEW
WITHOUT COVER
.75X SCALE



TOP VIEW
WITHOUT COVER

PIN	ELEMENT	DESCRIPTION	P/N
1	A		
2	THERMISTOR (OPTIONAL)		
3	K		
4	J		
5	H		
6	G		
7	F		
8	ELEMENT COMMON AND (OPTIONAL THERMISTOR)		
9	E		
10	D		
11	C		
12	B		

NOTE: SOME FEATURES NOT SHOWN FOR CLARITY

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.
TOLERANCES ARE:
FRACTIONS ± DECIMALS .XX ± .01 .XXX ± .005 ANGLES ±

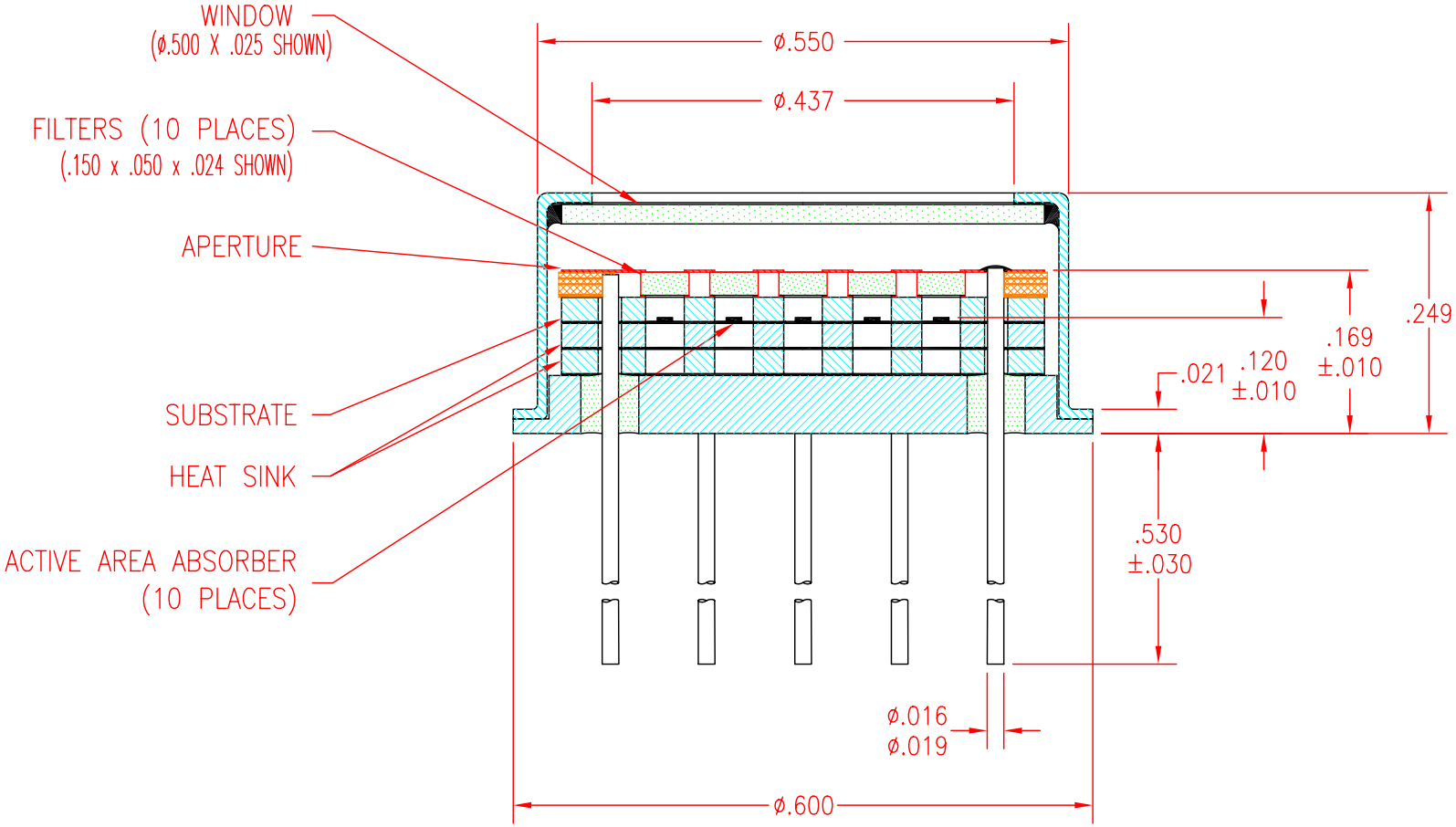
APPROVALS	DATE
DRAWN: DLJ	11/18/03
CHECKED:	
ENGINEERED:	
APPROVED:	

DEXTER RESEARCH CENTER, Inc.
7300 Huron River Dr., Dexter, MI 48130, ph. 734-426-3921 fax 734-426-5090

ASSEMBLY, 10 CHANNEL, TOP VIEW AND PIN OUT

SIZE:	SCALE:	DWG. NO.	REV.	PAGE:
A	6" : 1"	1033.2	B	1 OF 2

DRC PART NO.	MATERIAL:	FINISH:



SECTION A—A

NOTE: SOME FEATURES NOT SHOWN FOR CLARITY.

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES. TOLERANCES ARE: FRACTIONS ± DECIMALS .XX ± .XXX ± .005 ANGLES ±		DEXTER RESEARCH CENTER, Inc. 7300 Huron River Dr., Dexter, MI 48130, ph. 734-426-3921 fax 734-426-5090	
APPROVALS	DATE	ASSEMBLY, 10 CHANNEL, CROSS SECTION	
DRAWN: DLJ	4/17/00		
CHECKED:		SIZE: A / SCALE: 6" : 1" / DWG. NO. 1033.1 / REV. NC / PAGE: 2 OF 2	
ENGINEERED:		DRC PART NO. / MATERIAL: / FINISH:	
APPROVED:			