

Two Channel Pyroelectric Detector PS2x4V1-A-S1.5

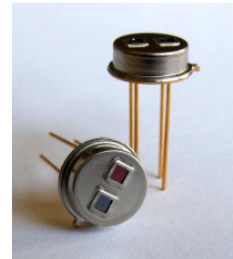
Pyroelectric dual-channel voltage mode detector for NDIR gas analysis.

Active Area	2 x (1.1 x 1.1)	mm ²
Aperture	2 x (1.5 x 1.5)	mm ²
Mode	Voltage	
Time Constant $t_{(0-63\%)} \text{ thermal}$	typ. 26	ms
Time Constant $t_{(0-63\%)} \text{ electrical}$	typ. 1000	ms
AC Sensitivity ^{1,2,3}	typ. 950	V/W
Noise Density Voltage ¹	typ. 0.5	$\mu\text{V}/\text{Hz}^{1/2}$
Noise Equivalent Power NEP ^{1,2,3}	typ. 5.26×10^{-10}	W/Hz ^{1/2}
Specific Detectivity D^* ^{1,2,3}	typ. 2.09×10^8	cmHz ^{1/2} /W
Microphonic Voltage ¹	typ. 10	$\mu\text{V}/\text{g}$
Filling Gas	Kr	
Filters	All Micro-Hybrid standard narrow band pass filters can be combined. Customized filters on request. For more information please see document "infrared filters"	
Drain Source Voltage	max. +18	VDC
External Load	47	kOhm
Offset Voltage	0.3 ... 1	V
Gate Resistor	50	GOhm
Operation Temperature	-25 ... +85	°C
Mass	~1	g
Housing	T039 (modified)	

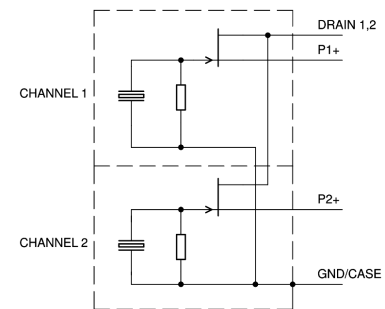
¹ at $T_{\text{amb}}=25^\circ\text{C}$, 10 Hz, band width 1 Hz

² Blackbody T=500 K; E=38 W/m²

³ on air without windows



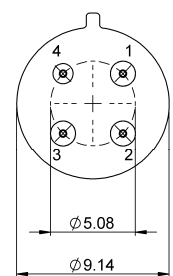
Equivalent Circuit



Pin Assignment

Bottom View

- Pin 1 Output P2+
- Pin 2 Drain
- Pin 3 Output P1+
- Pin 4 GND



Micro-Hybrid Electronic GmbH

Heinrich-Hertz-Straße 8
D-07629 Hermsdorf

Tel +49 366 01 592 100
Fax +49 366 01 592 110

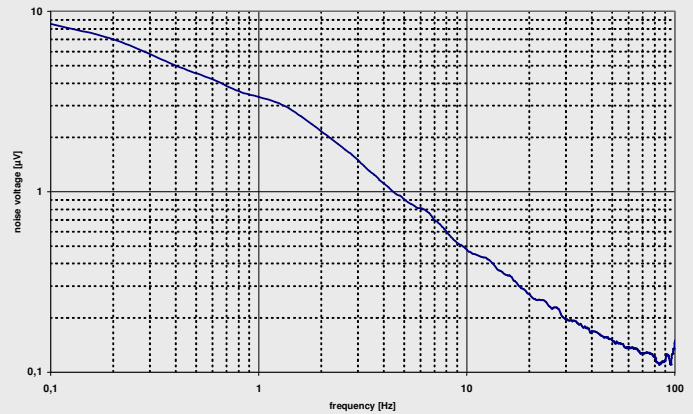
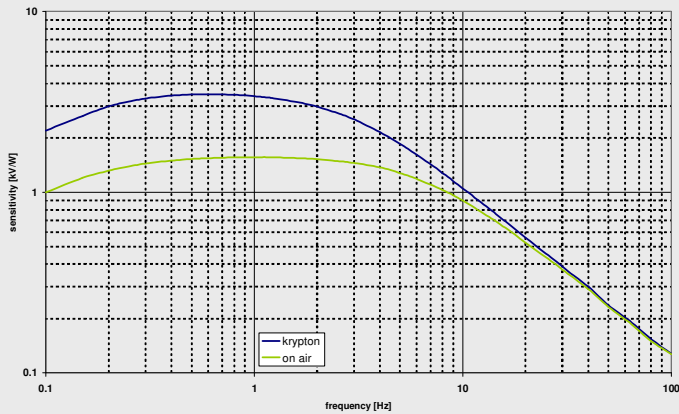
Email: infrared@micro-hybrid.de
Web: www.micro-hybrid.de

LIVING MICROWORLDS.

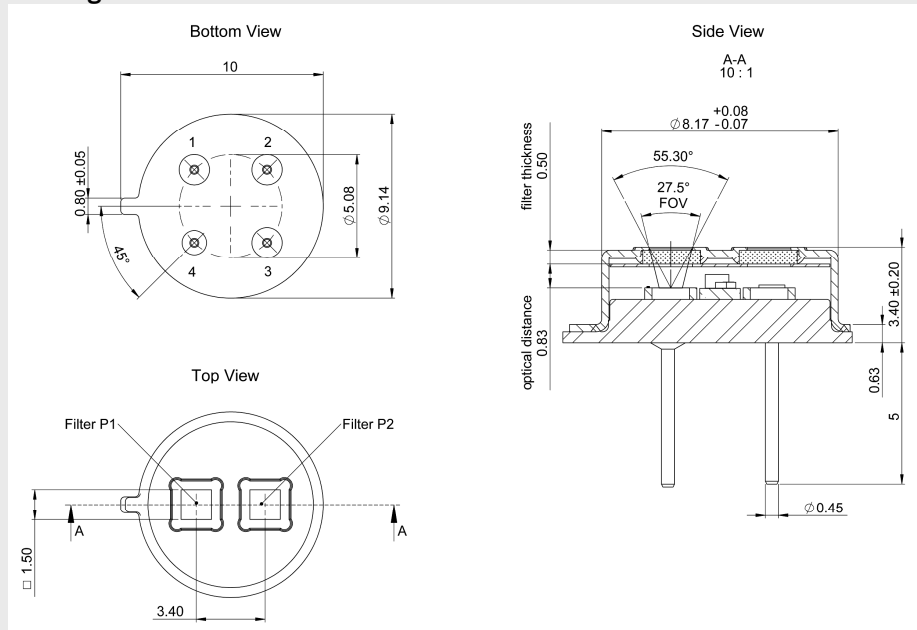


Two Channel Pyroelectric Detector PS2x4V1-A-S1.5

Frequency Response



Housing



Ordering Information

PS2x4V1-A-S1.5-Filling Gas (GG)-Filters (H/H)

e.g. PS2x4V1-A-S1.5-Kr-E1/D1

Optional parts

IR-Source JSIR 350 - Fast IR emitter based on thin film technology
Art.-Nr. 6353.01-3.01

Evaluation Kit - For independent evaluation of emitters and detectors
Art.-Nr. 7206.01-A.00

Micro-Hybrid Electronic GmbH

Heinrich-Hertz-Straße 8
D-07629 Hermsdorf

Tel +49 366 01 592 100
Fax +49 366 01 592 110

Email: infrared@micro-hybrid.de
Web: www.micro-hybrid.de

September 20th 2012 - subject to change without notice

LIVING MICROWORLDS.