

QS-THZ

Hybrid THz detectors



* Pictures for indicative purposes only

KEY FEATURES

- **RELATIVE MEASUREMENTS FROM 0.1 TO 30 THZ**
Broadband, room temperature operation, easier to use and less expensive than a Golay cell
- **EASY TO INTEGRATE FORMAT**
TO5 and TO8 packages make the QS-THZ detectors small and easy to integrate in an existing system
- **SEVERAL SENSOR SIZES AVAILABLE**
Choice of 5 and 9 mm \varnothing
- **CALIBRATED AT 0.63 μM**
All THz detectors are calibrated at a single wavelength (0.63 μm) and include a typical wavelength correction data from 0.25 to 440 μm . They are used for relative measurements outside that range.
- **TEST BOX AVAILABLE**
Can be used with our QS-I-TEST test box which provides mounting and power supply

PERMANENT IR WINDOW OPTIONS

Every model can be fitted with a permanent IR window to narrow the wavelength range:

- S5/8: sapphire (0.3 - 4.5 and 100 - 1000 μm)
- Q5/8: quartz (0.25 - 3.0 and 50 - 1000 μm)
- Si5/8: silicon (1.2 - 8.0 and 50 - 1000 μm)

ACCESSORIES



QS-I-Test
evaluation test box



Permanent IR Windows
(Various types available)



SDC-500 digital
optical chopper



Pelican carrying case

QS-THZ

Specifications

CE NIST*
Traceable



*Also traceable to NRC-CNRC



	QS5-THZ-BL	QS9-THZ-BL
VOLTAGE RESPONSIVITY	70 kV/W	30 kV/W
EFFECTIVE APERTURE	5 mm ϕ	9 mm ϕ
PACKAGE	TO5	TO8
MEASUREMENT CAPABILITY		
Spectral range^a		
Frequency	0.1 - 30 THz	0.1 - 30 THz
Wavelength	3000 - 10 μ m	3000 - 10 μ m
Max power density	50 mW/cm ²	50 mW/cm ²
Noise equivalent power	1.0 x 10 ⁻⁹ W/(Hz) ^b	3.0 x 10 ⁻⁹ W/(Hz) ^b
Detectivity^b	4.10 ⁹ cm(Hz) ^{1/2} /W	2.710 ⁹ cm(Hz) ^{1/2} /W
Voltage responsivity^b	120 kV/W	30 kV/W
PHYSICAL CHARACTERISTICS		
Effective aperture	5 mm ϕ	9 mm ϕ
Package	TO5	TO8
Sensor	Pyroelectric	Pyroelectric
Absorber	BL	BL
Dimensions (excluding pins)	9.1 ϕ x 6.4D mm	15.2 ϕ x 6.4D mm
Weight	45 g	45 g
ORDERING INFORMATION		
Product page		

- a. Projected Spectral Range.
From 10 to 440 μ m, spectrometer measurement.
From 440 to 3000 μ m, relative measurement only.
This spectral range is subject to change.
- b. 630 nm, 5 Hz



QS-I-TEST EVALUATION TEST BOX

	QS-I-TEST
Batteries	+9V/-9V
R_i resistors	105 - 1010 Ω
C_i compensating	YES
Package	101.6H x 127W x 58.4D
Optical mount	1/4-20 threaded
Front bezel	SMI (1,035-40)
Product number	201693

* For details, contact your Gentec-EO representative

Specifications are subject to change without notice