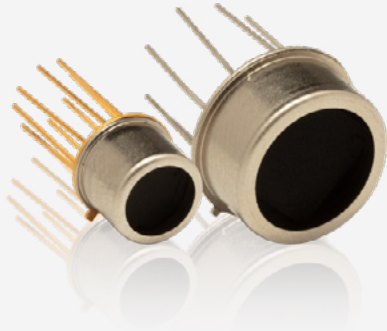


## QS-THZ

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 Ø
- **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
<b>VOLTAGE RESPONSIVITY</b>	120 kV/W	30 kV/W
<b>EFFECTIVE APERTURE</b>	5 mm $\phi$	9 mm $\phi$
<b>PACKAGE</b>	TO5	TO8
<b>MEASUREMENT CAPABILITY</b>		
<b>Spectral range<sup>a</sup></b>		
<b>Frequency</b>	0.1 - 30 THz	0.1 - 30 THz
<b>Wavelength</b>	3000 - 10 $\mu$ m	3000 - 10 $\mu$ m
<b>Max power density</b>	50 mW/cm <sup>2</sup>	50 mW/cm <sup>2</sup>
<b>Noise equivalent power</b>	1 nW	3 nW
<b>Detectivity<sup>b</sup></b>	4.10 <sup>8</sup> cm(Hz) <sup>1/2</sup> /W	2.710 <sup>8</sup> cm(Hz) <sup>1/2</sup> /W
<b>Voltage responsivity<sup>b</sup></b>	120 kV/W	30 kV/W
<b>PHYSICAL CHARACTERISTICS</b>		
<b>Effective aperture</b>	5 mm $\phi$	9 mm $\phi$
<b>Package</b>	TO5	TO8
<b>Sensor</b>	Pyroelectric	Pyroelectric
<b>Absorber</b>	BL	BL
<b>Dimensions (excluding pins)</b>	9.1 $\phi$ x 6.4D mm	15.2 $\phi$ x 6.4D mm
<b>Weight</b>	45 g	45 g
<b>ORDERING INFORMATION</b>		
<b>Product page</b>		

- a. Projected Spectral Range.  
From 10 to 440  $\mu$ m, spectrometer measurement.  
From 440 to 3000  $\mu$ 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
<b>Batteries</b>	+9V/-9V
<b>R<sub>i</sub> resistors</b>	105 - 1010 $\Omega$
<b>C<sub>i</sub> compensating</b>	YES
<b>Package</b>	101.6H x 127W x 58.4D
<b>Optical mount</b>	1/4-20 threaded
<b>Front bezel</b>	SM1 (1.035-40)
<b>Product number</b>	201693

\* For details, contact your Gentec-EO representative

Specifications are subject to change without notice