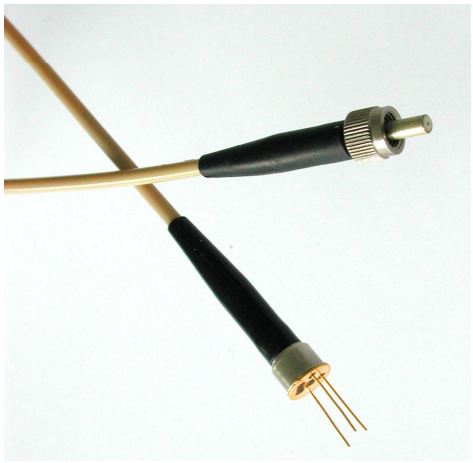
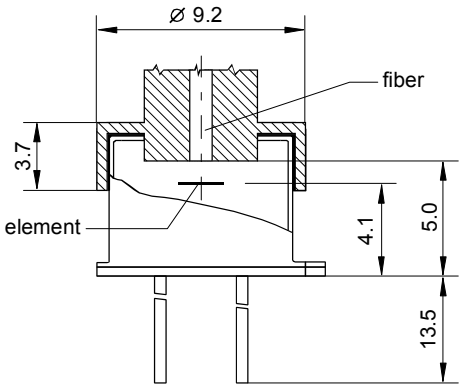
LT D1 CIR

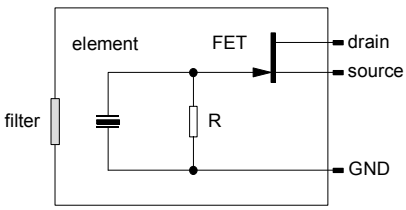
Pyroelectric Single Element Detector with CIR-Fiber for Measurement Applications

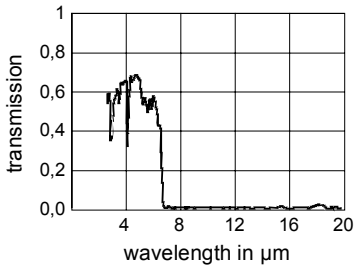


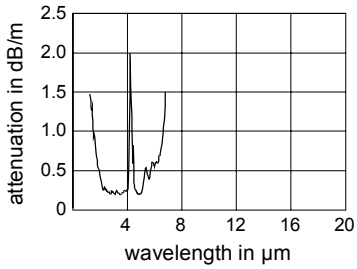
detector:	
detector element size	∅ 1 mm
detector responsivity[1,2]	>1200 V/W
detector noise[1]	<700 nV/√Hz
specific detectivity[1,2]	>2·10^8 cm √Hz / W
offset voltage	0.4 to 1.5 V
operating voltage	2 to 18 V
housing	TO 39
fiber:	
type	CIR-fiber (Chalcogenide As-S glass)
ransmission range	1.5 to 6.0 µm
attenuation	0.3 dB/m @ 2 to 4 µm
core/clad diameter	700 µm / 800 µm
length	0.1 to 5 m (on request)
operation temperature range	–20 to 80 °C
refractive index	2.4
min. fixed/elastic bending radius	50 mm / 80 mm
fiber jacket outer diameter	3.2 mm
cable design	Ti-SMA or bespoke connector/ferrule
detector with 0.5 m long CIR fiber:	
responsivity[1,2]	>220 V/W
noise[1]	<700 nV/√Hz
detectivity[1,2]	>4·10^7 cm √Hz / W
operating temperature	–20 to 70 °C
storage temperature	–20 to 70 °C

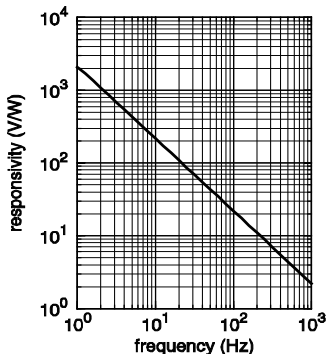
1) frequency: 10 Hz, detector temperature: 25 °C
2) black body source temperature: 500 K

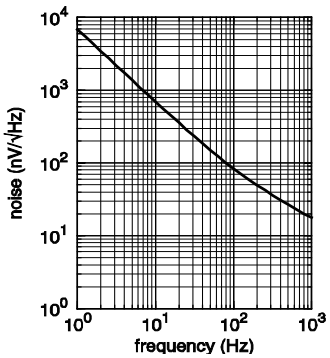


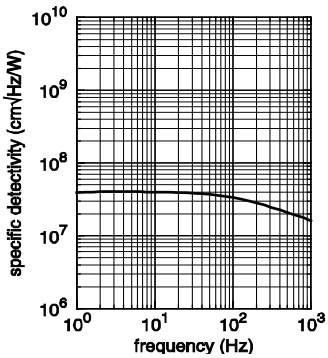












The LT-D1-CIR detectors are under development in a co-operation between DIAS Infrared GmbH and A.R.T. Photonics GmbH.

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