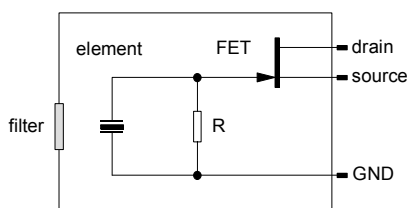
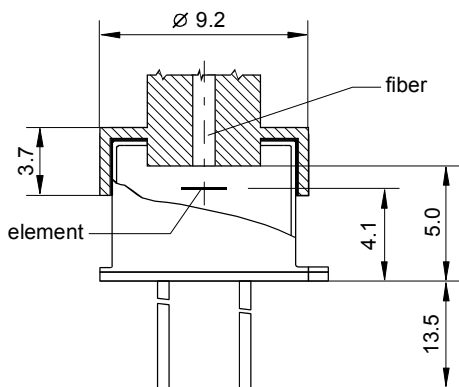
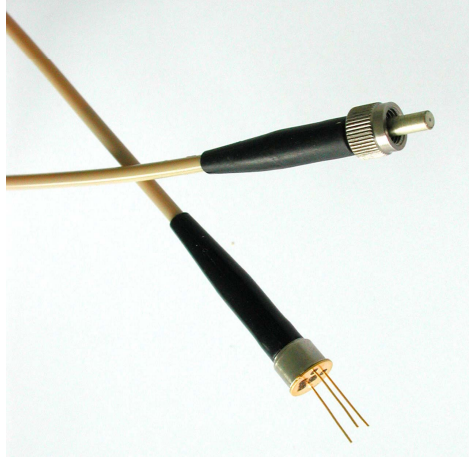


LT D1 PIR

Pyroelectric Single Element Detector with PIR-Fiber for Measurement Applications

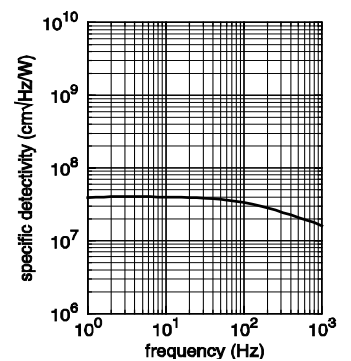
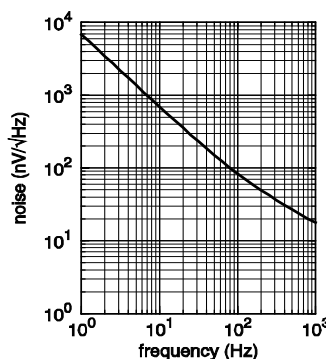
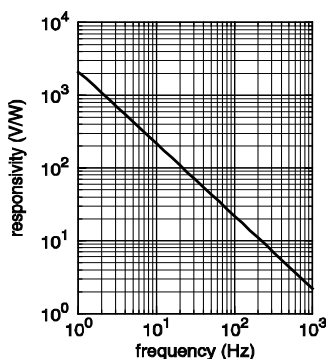
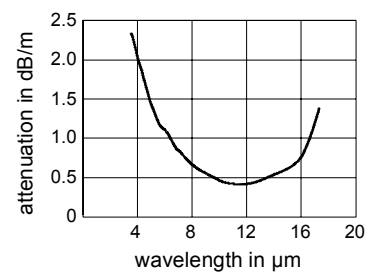
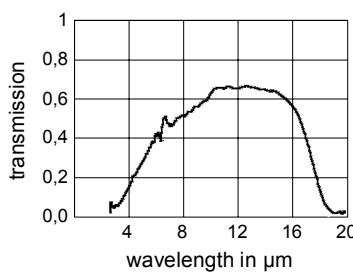


detector:	
detector element size	∅ 1 mm
detector responsivity ^{1,2}	>1200 V/W
detector noise ¹	<700 nV/√Hz
specific detectivity ^{1,2}	>2·10 ⁸ cm √Hz/W
offset voltage	0.4 to 1.5 V
operating voltage	2 to 18 V
housing	TO 39

fiber:	
type	PIR-fiber (Polycrystalline AgCl:AgBr)
transmission range	4 to 18 μm
attenuation	0.5 dB/m @ 10 to 12 μm
core/clad diameter	800 μm / 900 μm
length	0.1 to 5 m (on request)
operation temperature range	-270 to 140 °C
refractive index	2.2
min. fixed/elastic bending radius	20 mm / 80 mm
fiber jacket outer diameter	3.2 mm
cable design	Ti-SMA or bespoke ferrule

detector with 0.5 m long PIR 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



Further developments may entail modifications of indicated data without notification. Revision 01/2010. ltd1pir_eng

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