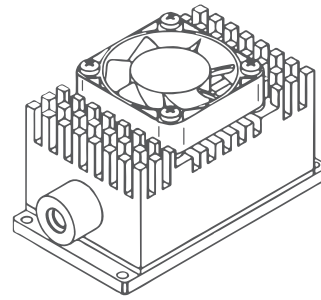


FIP series

Fast transimpedance amplifiers



FEATURES

- Compatible with VIGO TE-cooled biased photovoltaic IR detectors in the TO8 package
- Frequency bandwidth: up to 1 GHz
- AC coupled (DC monitor as an option)
- M4 mounting hole
- Designed for effective heat dissipation
- Integrated fan
- External TEC controller required

INCLUDED ACCESSORIES

- 1 pc of SMA-BNC cable
- 1 pc of LEMO-DB9 cable

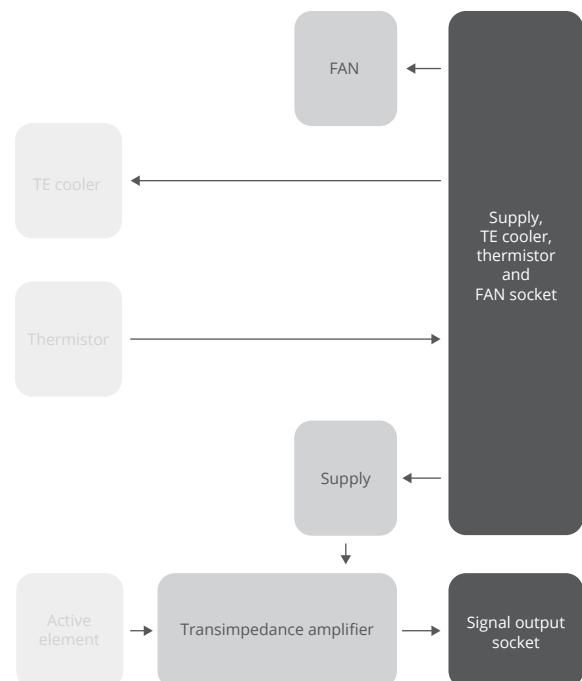
DEDICATED ACCESSORIES

- PTCC-01 series TEC controller (p. 145)
- Smart Manager software: freeware
- DRB-2 base mounting system (p. 152)

CODE DESCRIPTION

Type	f_{low} , Hz	f_{high} , Hz	Version
FIP	1k	1G	D (with DC monitor)
	10k		ND (without DC monitor)

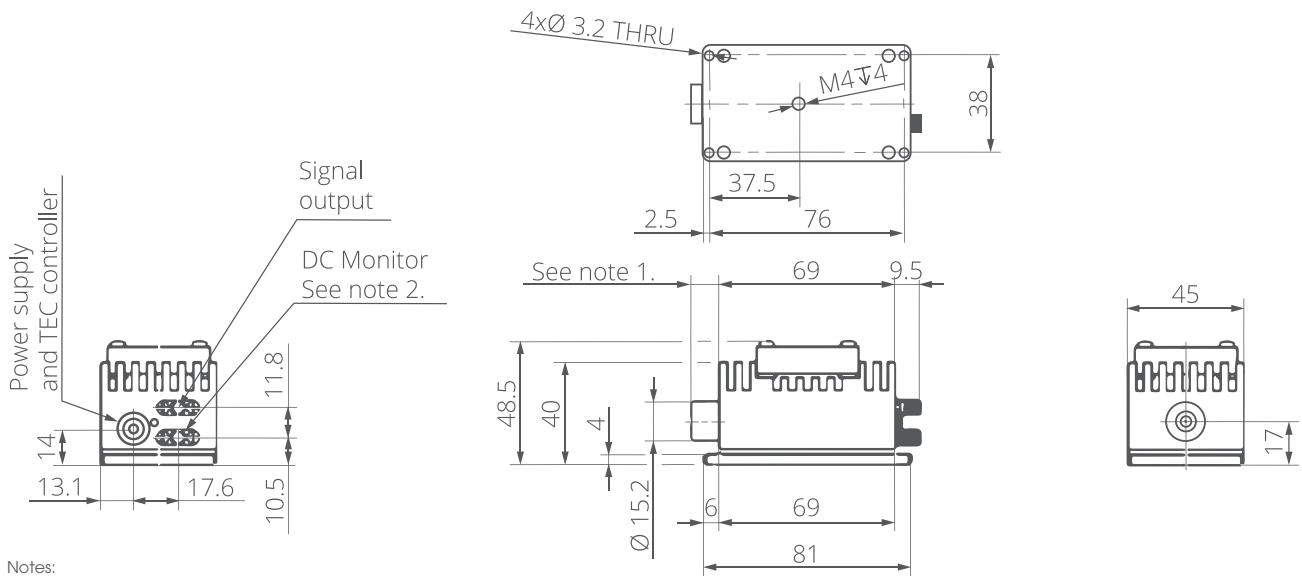
SCHEMATIC DIAGRAM



SPECIFICATION ($T_{amb} = 293\text{ K}$)

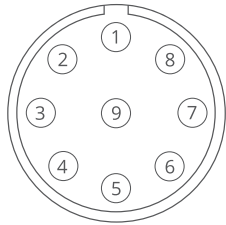
Parameter	Conditions/remarks	Value	Unit
Low cut-off frequency, f_{lo}		1k, 10k	Hz
High cut-off frequency, f_{hi}		1G	Hz
Transimpedance, K_i	Fixed	up to 8.5	kV/A
Output impedance, R_{out}		50	Ω
Output voltage swing, V_{out}	$R_{load} = 50\ \Omega$	± 1	V
Power supply voltage, V_{sup}		+12/-5	V
Power supply current, I_{sup}		max. ± 50	mA
Weight		210	g

MECHANICAL LAYOUT (Unit: mm)



- Notes:
1. TO8 detector dimensions in the TO8 package technical drawings (p. 203, 204, 207, 209, 210)
 2. Only for FIP-xx-xx-D version.

POWER SUPPLY, TE COOLER, THERMISTOR AND FAN SOCKET PINOUT



LEMO ECG.0B.309.CLN

Pin No.	Symbol	Function
1	FAN+	Fan supply input (+)
2	TH2	Thermistor output (2)
3	TEC-	TEC supply input (-)
4	-Vsup	Power supply input (-)
5	GND	Ground
6	+Vsup	Power supply input (+)
7	TEC+	TEC supply input (+)
8	TH1	Thermistor output (1)
9	DATA	Data

ABSOLUTE MAXIMUM RATINGS

Parameter	Test conditions/remarks	Value	Unit
Ambient operating temperature, T_{amb}		10 to 30	°C
Storage temperature, T_{stg}		-20 to 50	°C
Humidity	No dew condensation	10 to 90	%

Stresses beyond those listed under Absolute Maximum Ratings may cause permanent damage to the device. Constant or repeated exposure to absolute maximum rating conditions may affect the quality and reliability of the device.