

**CdTe MINIATURE PROBE
MODEL SMM3**

OPERATION MANUAL



CORPORATE HEADQUARTER

CTT,
23, rue du Loess, BP 20,
F-67037 STRASBOURG-CEDEX 2
Tel. : +33 (0)3 88 26 81 30,
Fax : + 33 (0)3 88 28 45 48
E-mail : info@eurorad.com
Web : www.eurorad.com

COMMERCIAL OFFICE

24, rue du Pont
F-94430 CHENNEVIERES SUR MARNE
Tel : +33 (0)1 56 86 11 49
Fax : +33 (0)1 56 86 11 50
E-mail : info@eurorad.com
Web : www.eurorad.com

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MAIN CHARACTERISTICS OF THE CdTe SMM3 PROBE

The SMM3 CdTe detection probe offers a wide range of applications + characteristics, depending on the choice of the detector. Counters or spectrometers are available, with sizes ranging from 1mm³ to 200mm³.

The cable output is of 10m length for connection to any electronic set-up (scaler, multi-channel analyser, etc...)

Application : Local activity measurements in medical and pharmaceutical research, industry, etc... with single or multiple isotopes.

TECHNICAL SPECIFICATIONS

TYPE : SMM3

DETECTOR

Type : CdTe planar detector

Volume : ≤ 200mm³

Detector bias voltage : polarity POSITIVE

PREAMPLIFIER

Complete Charge Sensitive Preamplifier

Type : SMD technology charge sensitive preamplifier

Size : Ø27mm

Preamplifier noise : 1.6keV (CdTe, 0pF at 1μs)

Sensitivity : 360mV/MeV (CdTe) (output negative)

Risetime : 200ns (0pF)

Feedback network : 1000MΩ / 1pF

Output resistance : 50Ω

Power supply :

Vcc+ = +12V, Icc = 15 mA

Vcc- = -12V, Icc- = 9mA

HOUSING

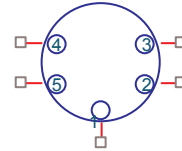
Aluminium housing with internal collimator

CONNECTOR

SUPPLY VOLTAGES

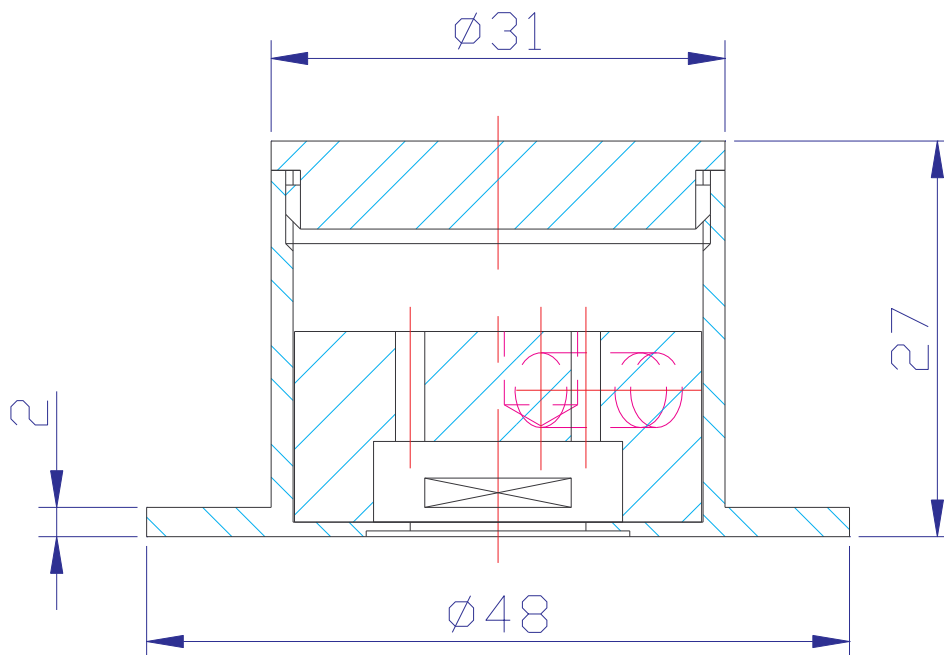
LEMO 5 contacts : FGG.0B.305.CLAD 42Z

- 1: GND
- 2 : BIAS:
- 3 : OUT
- 4 : +12V
- 5: -12V



External view

MECHANICAL CHARACTERISTICS



Housing : Aluminium

Cable : 4 - wires, 3mm diameter, shielded

SIGNAL PROCESSING

Common spectroscopic amplifier with gaussian / triangular shaping or EURORAD model CPP (Compact Pulse Processor).

CONNECTION DIAGRAM

