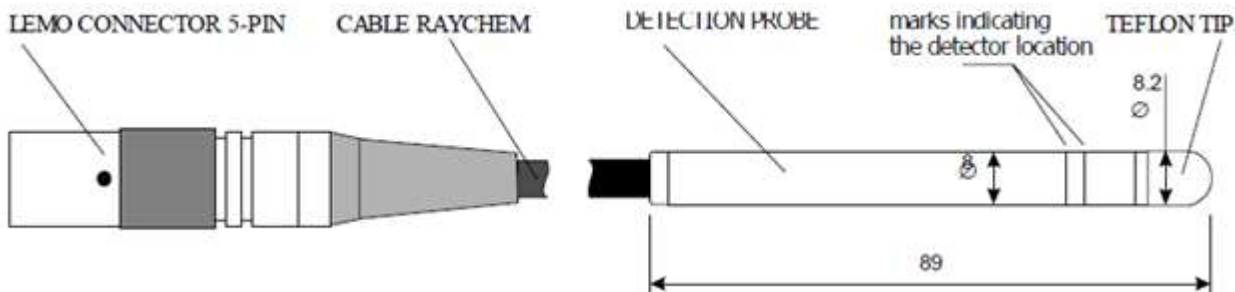


Spectrometric Detection Probes SDP310



Introduction

The Spectrometric Detection Probe SDP310 is a miniature gamma-ray detection device consisting of removable probe and attached cable with connectors. Removable probe contains a single CdZnTe quasi-hemispherical detector and charge sensitive preamplifier placed inside a watertight cylindrical case hermetically connected to a cable.

These probes have been designed for application in difficult of access places, like fuel rods inside of fuel assemblies or nuclear spent fuel in underwater storing.

Specifications

Detection probe	Detector Volume, mm ³	Energy resolution (FWHM) at 662 keV line, keV	Peak-to-Compton ratio at 662 keV
		Standard Grade	Standard Grade
SDP310/Z/01	0.8...1.5	≤ 20 keV	≥ 1.3
<ul style="list-style-type: none"> • detector type • detector high voltage • detector high voltage polarity • output signal polarity • output Impedance • output signal rise time • conversion coefficient • integral nonlinearity (60 keV...1.3 MeV) • range of recommended operation temperatures • shift peak position in range of recommended operation temperatures • shift peak position for 8 hours of continuous operation • power requirement 		<p style="text-align: right;">CdZnTe quasi-hemispherical detector</p> <p style="text-align: right;">up to 600 V</p> <p style="text-align: right;">positive</p> <p style="text-align: right;">negative</p> <p style="text-align: right;">50 Ω</p> <p style="text-align: right;">< 150 ns</p> <p style="text-align: right;">> 0.1 mV/keV</p> <p style="text-align: right;">≤0.2%</p> <p style="text-align: right;">0 to 40°C</p> <p style="text-align: right;"><0.02%/°C</p> <p style="text-align: right;">< 0.2 %</p> <p style="text-align: right;">+12 V, 18 mA; - 12V, 12 mA</p>	
Dimensions <ul style="list-style-type: none"> • length of removable probe • diameter of removable probe • length of connecting cable 		<p style="text-align: right;">90 mm</p> <p style="text-align: right;">8.2 mm</p> <p style="text-align: right;">8 m</p>	
Connectors <ul style="list-style-type: none"> • single 5-pin LEMO or 9-pin connector D9 type, BNC and SHV 			