

# NuDET PLASTIC

Plastic Scintillation Detectors for Radiation Monitoring Systems



NuDET PLASTIC is a range of plastic scintillation detectors. They are widely used in detection systems for their efficiency, high reliability and variety of shapes and sizes.

## Benefits

- Numerous possibilities of application
- Variety of geometric shapes and sizes, customisation possible
- Production of raw materials in-house
- Processing and detector assembling also available

## Key figures

56 %

*Light output (relative to anthracene)*

2.5 ns

*Decay constant*

1.03 g/cm<sup>3</sup>

*Density*

## Product description

Plastic scintillators have an extremely wide field of application.

Used in thin layers, they detect protons, electrons and beta particles with a low background. Standard thickness of the foil is 0.3 mm and 0.5 mm.

Large volume plastic scintillators are suitable for measuring gamma radiation. They are widely used in the detection systems due to their high efficiency, high reliability and the variety of shapes and sizes that may be produced.

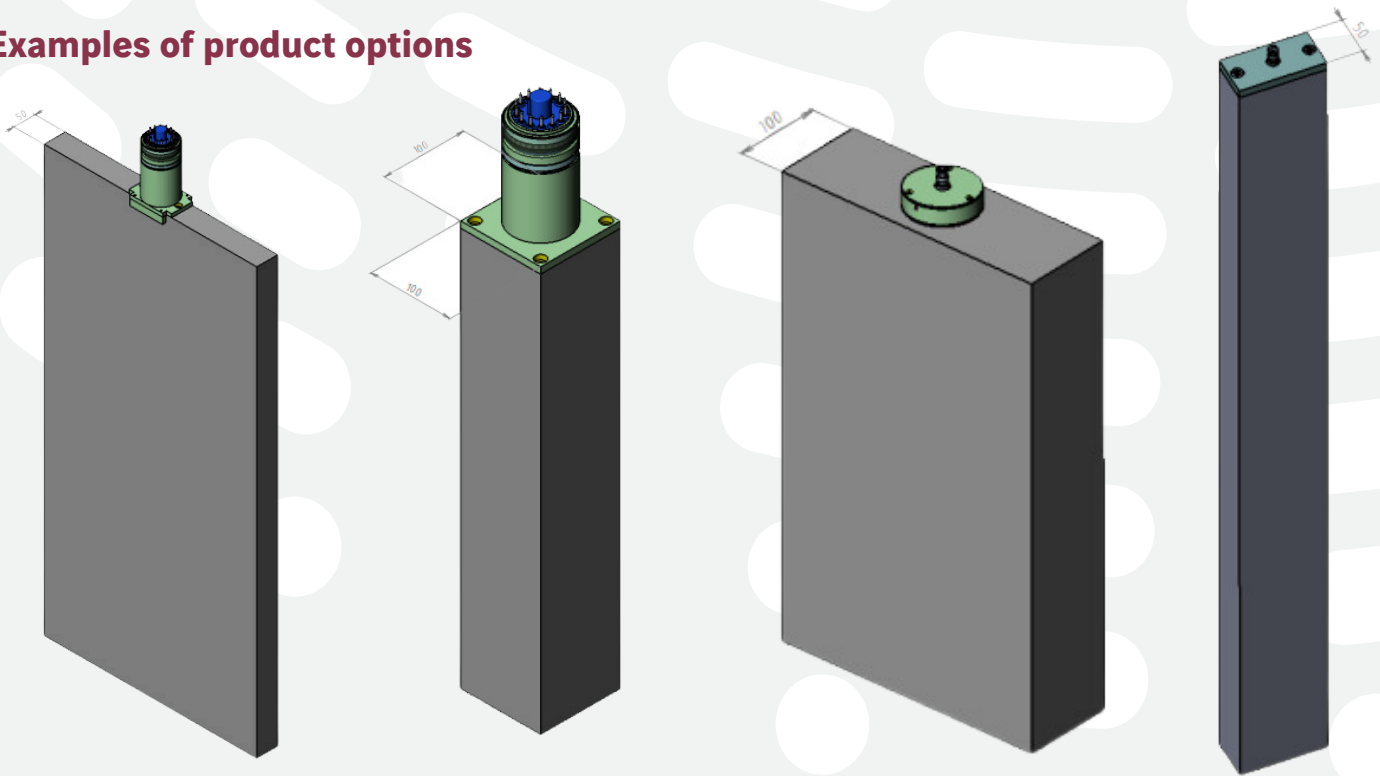
Block, cylinder and foil scintillators of various sizes may be produced on request without housing, with or without a polished surface, with reflector, fixed to the light-guide or as plastic detection assemblies coupled with a photomultiplier.

## Product applications

- Detection of beta, gamma radiation
- Detection of ionising radiation in high energy physics
- Homeland security and environmental monitoring (gate monitoring systems for airports, NPPs, scrapyards, etc.)



## Examples of product options



## Examples of Standard Products (for both blue and green-emitting scintillators)

Product description	Volume	Dimensions	PMT Assembly	Interface/Socket
SPD.D90.120	0.75 l cylinder	90 mm (diam.) x 120 mm (height)	2"	PMT pins (14-inch plug)
SPD.1000.500.50	25 l panel	1000 x 500 x 50 mm	2"	PMT pins (14-inch plug)
SPU.200.200.100MHV	4 l panel	200 x 200 x 100 mm	well type, 1 1/8" integrated	connector interface (BNC, MHV), pre-installed cable, integrate voltage divider
SPU.1000.100.50MHV	15 l panel	1000 x 100 x 50 mm	well type, 1 1/8" integrated	connector interface (BNC, MHV), pre-installed cable, integrate voltage divider