SCIONIX

51B51/2M

51 x 51 mm (2" x 2") NaI(Tl) scintillation detector

Scionix standard detector with a 51 x 51 mm NaI(Tl) crystal coupled directly to a 2-inch photomultiplier tube. Crystal and tube are hermetically sealed in a light-tight housing with a µ-metal shield, and the detector ends in a 14-pin socket for a voltage divider.



Scintillator	Crystal dimensions	Light sensor
NaI(Tl) [1]	**Ø 51 x 51 mm (diameter x height)** [1]	**Photomultiplier tube, 2 in. (51 mm), bialkali photocathode** [1]

Specifications

DETECTOR

Scintillator	NaI(Tl)	[1]
Light sensor	Photomultiplier tube, 2 in. (51 mm), bialkali photocathode	[1]

MECHANICAL

Crystal dimensions	Ø 51 x 51 mm (diameter x height)	[1]
Detector housing	Silver anodised aluminium (standard)	[3]

ORDERING & ACCESSORIES

Detector option	Low-background (LB) version: low-background steel or electrolytic copper housing, selected components and quartz or undoped NaI light guides	[2]

GENERAL

Format	Integrated (B style): the crystal is coupled directly to the photomultiplier tube and both are hermetically sealed in a light-tight housing	[2]
Magnetic shielding	External solid µ-metal shield (M in the type number)	[3]
PMT base	14-pin JEDEC B14-38 socket, standard for detectors supplied without voltage divider	[4]
HV polarity	Positive high voltage (standard); -NEG in the type number means negative	[4]
Electronics	Plug-on or built-in voltage divider; optional preamplifier/line driver with a 50 Ω output for over 100 m of cable	[1]

Sources

[1] **Tutorial of SCIONIX scintillation detectors (2018)**
Scionix · manual · pp. 37 and 40; pp. 36–40 (type number); pp. 37–40 and 74 · checked 2026-11-26
https://scionix.nl/wp-content/uploads/2022/09/Tutorial-of-SCIONIX-scintillation-detectors-2018-3-.pdf

[2] **Examples of standard detector configurations**
Scionix · product-page · Assemblies with integrated photomultiplier tubes: B-styles · checked 2026-11-26
https://scionix.nl/standard/

[3] **Nomenclature & Type numbering**
Scionix · product-page · 7. Electronics/ features of PMT; Standard “off the shelf” detectors · checked 2026-11-26
https://scionix.nl/nomenclature-type-numbering/

[4] **Detector electronics**
Scionix · product-page · Plug-on or integrated?; Positive or Negative High Voltage? · checked 2026-11-26
https://scionix.nl/voltage-dividers/

Every value is taken from the manufacturer’s own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer’s published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.