SCIONIX

# 76B76/3M

## 76 x 76 mm (3" x 3") NaI(Tl) scintillation detector

The detector Scionix calls the standard for general gamma spectroscopy: a 76 x 76 mm NaI(Tl) crystal coupled directly to a 3-inch photomultiplier tube, hermetically sealed in a light-tight housing with a μ-metal shield. It ends in a 14-pin socket and is available in a low-background version.



Scintillator
**NaI(Tl)** [1]

Crystal dimensions
**76 x 76 mm (3" x 3")** [1]

Light sensor
**Photomultiplier tube, 3 in. (76 mm), bialkali photocathode** [2]

## Specifications

| | | |
|---|---|---|
| **DETECTOR** | | |
| Scintillator | NaI(Tl) | [1] |
| Light sensor | Photomultiplier tube, 3 in. (76 mm), bialkali photocathode | [2] |
| **MECHANICAL** | | |
| Crystal dimensions | 76 x 76 mm (3" x 3") | [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 | [1] |
| **GENERAL** | | |
| Use | General gamma spectroscopy – according to Scionix the standard detector, with excellent efficiency and energy resolution | [1] |
| Format | Integrated (B style): the crystal is coupled directly to the photomultiplier tube and both are hermetically sealed in a light-tight housing | [1] |
| 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 | [2] |

## Sources

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

[2] **Tutorial of SCIONIX scintillation detectors (2018)**
Scionix · manual · pp. 37–53 and 74; p. 39 · checked 2026-11-26
https://scionix.nl/wp-content/uploads/2022/09/Tutorial-of-SCIONIX-scintillation-detectors-2018-3-.pdf

[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.