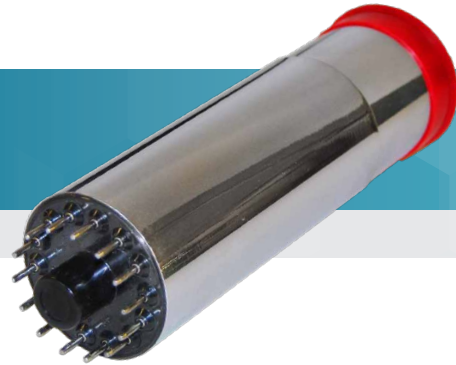




802

Scintillation Detectors



KEY FEATURES

- Guaranteed resolution
- Low mass housing
- Less than 0.5 ppm of potassium
- Mu metal magnetic light shield

DESCRIPTION

The Model 802 Scintillation Detector is a hermetically sealed assembly which includes a high resolution NaI(Tl) crystal, a photomultiplier tube, an internal magnetic/light shield, an aluminum housing, and a 14-pin connector.

The 802 series of NaI(Tl) detectors provides high efficiency and uniform response on both the cylindrical and well configurations. These detectors have a proven record of long term reliability and stability.

Any Model 802 detector assembly plugs directly into the Model 2007 Tube Base which provides power for the photomultiplier tube. Alternatively, the Model 802 device can plug into the Model 2007P combination tube base and preamplifier.

Many crystal sizes are available, with the most common sizes listed below. Consult the factory for information on other sizes.

| Model | Crystal Size mm (in.) | Resolution* | Outline Drawing | Well Dimensions mm (in.) | |
|----------|-----------------------|-------------|-----------------|--------------------------|---------------|
| | | | | D | L |
| 802-2x.5 | 51 x 13 (2 x .5) | 15% | A | N.A. | N.A. |
| 802-2x2 | 51 x 51 (2 x 2) | 8.5% | A | N.A. | N.A. |
| 802-2x2W | 51 x 51 (2 x 2) | 9.0% | B | 16.66 (0.656) | 39.27 (1.546) |
| 802-3x3 | 76 x 76 (3 x 3) | 7.5% | C | N.A. | N.A. |
| 802-3x3W | 76 x 76 (3 x 3) | 9.0% | C | 16.66 (0.656) | 54.40 (2.063) |

*Resolution is specified at the 662 keV peak of ¹³⁷Cs except for 802-2 x .5 which is specified at 122 keV.

Specifications and Options listed on back.

SPECIFICATIONS

- WINDOW – Aluminum, 0.5 mm thick; density 147 mg/cm².
- REFLECTOR – Oxide; 1.6 mm thick; density 88 mg/cm².
- MAGNETIC/LIGHT SHIELD – Conetic lined steel.

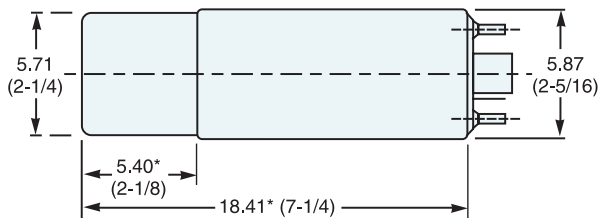
TYPICAL OPERATING VOLTAGES

- Cathode to Anode: +1100 V dc.
- Dynode to Dynode: +80 V dc.
- Cathode to Dynode: +150 V dc.

OPTIONS

- Model 2007 Tube Base with voltage divider and focus control.
- Model 2007P Tube Base with voltage divider, focus control, and preamplifier.

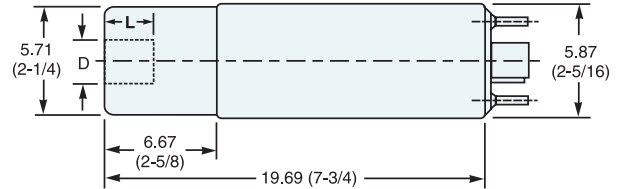
Outline Drawing A



Weight = 0.77 kg (1.7 lb)

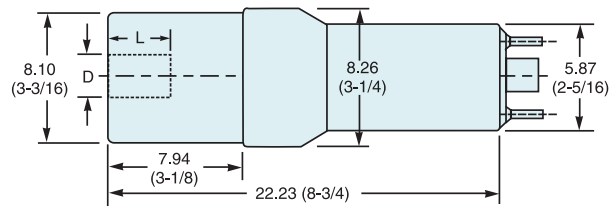
*Deduct 3.8 (1.5) for 802-2 x .5

Outline Drawing B



Weight = 0.77 kg (1.7 lb)

Outline Drawing C



Weight = 1.8 kg (4 lb)

Dimensions in the Outline Drawings are in cm (in.)



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