SYNOPSIS OF IS OF LITD

Number and Title of the Indian Standard: IS 11866 : 2018/IEC 60325 : 2002 Radiation Protection Instrumentation – Alpha, Beta and Alpha/Beta (Beta Energy>60 keV) Contamination meters and Monitors (First Revision)

a) Scope:

This Indian Standard is applicable to radiation meters and monitors designed for the direct measurement or the direct detection of surface contamination by alpha and/or beta radiation emitting nuclides and which comprise at least:

- a detection assembly (comprising γ counter tube, scintillation detector or semiconductor detector, etc), which may be connected either rigidly or by means of a flexible cable or incorporated into a single assembly.
- a measurement assembly.

Some meters and monitors consist of detection assemblies and measurement assemblies where it is possible to separate the detector assembly and use alternative detection assemblies. Conformity with the standard can either be achieved by:

All combinations of the detection assembly and the measurement assembly conforming to the requirements of this standard.

or

The detection assembly and the measurement assembly separately conforming to the relevant parts of this standard in isolation.

NOTE: The use of the latter criteria verifies conformance with this standard but does not infer that calibration of a particular combination of instruments is interchangeable with any other combination.

The use of the latter criteria could allow a purchaser to use combinations of assemblies from different manufacturers with confidence.

The standard is applicable to:

– alpha surface contamination meters;
– alpha surface contamination monitors;
– beta surface contamination meters;
– beta surface contamination monitors;
– alpha/beta surface contamination meters;
– alpha/beta surface contamination monitors.

The latter two are equipment capable of determining alpha and beta contamination simultaneously and displaying the measurement of either:

– Alpha (beta, alpha/beta) surface contamination monitor

An assembly including one or more radiation detectors and associated assemblies or basic function units, designed to measure alpha (beta, alpha/beta) surface emission rate associated with the contamination of the surface under examination.

– Alpha (beta, alpha/beta) surface contamination monitor.

This standard is also applicable to special purpose assemblies and to assemblies specifically designed for a surface of a particular nature. However, some of the requirements may need to be amended or supplemented according to the particular requirements applicable to such assemblies.

If an assembly has been designed to carry out combined functions, it must comply with the requirements pertaining to these different functions. If, on the other hand, it has been designed to perform one function, and, in addition, it is also capable of carrying out other functions, then

it must comply with the requirements for the first function, and it would be desirable for it to comply with requirements pertaining to the others.
This standard is not applicable to radiation monitors or meters designed to measure or detect beta particles with Emax < 60 keV.

b) Salient features of content:

The object of this standard is to lay down standard requirements and to give examples of acceptable methods, and also to specify general characteristics, general test conditions, radiation characteristics, electrical safety, environmental characteristics, and the requirements of the identification certificate for alpha, beta and alpha-beta contamination meters and monitors.

c) Types/grades/classes, if any covered in the standard: NA

d) Disclaimer (to be automatically provided by the program/software): NA