

1. Product introduction



DELS series Liquid Scintillation Counter is designed for the high sensitive measurements and analysis on low-level α and β radioactivity. The measurement of ^3H , ^{14}C and other α/β nuclides can be widely used in nuclear power plants, environmental protection, medical and other industries.

• The products have three series

- 1 DELS 400S has dual PMTs using coincidence technology with an external standard γ source, it ensures the accurate measurement on the complex compositions.
- 2 DELS 600S has triple PMTs using TDCR coincidence technology, without the additional standard source the measurements and analysis are more convenient, and it keeps high detection efficiency.
- 3 DELS 200P and DELS 300P are the Portable Liquid Scintillation Counters.



Liquid Scintillation Counter series products equipped with automatic sampling vial feeding system up to 200 vials, can utilize the large batch samples measurement with higher testing efficiency and lower costs. The products have a unique shielding design for the , the low-background lead chamber by integrated casting molding it minimizes the background against the interference from external environment. Digital signal processing technology and professional application software ensure the accuracy and reliability of the α/β sampling measurement performance.



2.Features

- 1 Dual shielding methods, Low background lead chamber plus anticoincidence detectors
- 2 Quench correction options, TDCR or External Standard γ source
- 3 α/β discrimination technology
- 4 Temperature control and Static unit ensure the stability of the measurement
- 5 Automatic sampling vial feeding system up to 200 vials
- 6 Priority task function allows the urgent work cut in
- 7 Preset quench correction program/curve with automatic/manual mode

3.Specifications

Detection efficiency	
DELS 400S	3H (0~18.6keV): $\geq 62\%$; 14C (0~156keV): $\geq 93\%$
DELS 600S	3H (0~18.6keV): $\geq 65\%$; 14C (0 ~ 156keV): $\geq 95\%$
Figure of Merit	
DELS 400S	3H (0~18.6keV): ≥ 300 ; 14C (0 ~ 156keV): ≥ 800
DELS 600S	3H (0~18.6keV): ≥ 300 ; 14C (0 ~ 156keV): ≥ 600
Detection limit	
DELS 400S	$3H \leq 1.2\text{Bq/L}$ (12ml cocktails with 8ml water, measurement time 1000min)
DELS 600S	$3H \leq 1\text{Bq/L}$ (12ml cocktails with 8ml water, measurement time 1000min)
Energy range	α : 3~10MeV; β : 0~2MeV
External standard source	^{133}Ba
Number of samples	200
Dimensions	width 860mm× depth 945mm× height 685mm
Weight	about 900KG
Power supply	220VAC 50Hz, 400W
Operating environment	15~30°C, relative humidity 30%~80%

• DELS 200P/DELS 300P Portable Liquid Scintillation Counter



1. Specifications

DELS 200P/DELS 300P Portable Liquid Scintillation Counter

β energy range	0~2MeV
Detection efficiency	3H (0~18.6keV): $\geq 60\%$; 14C (0~156keV): $\geq 90\%$
Tritium water	12ml cocktails with 8ml water, measurement time 1 hour, detection efficiency $\geq 25\%$, background $\leq 150\text{cpm}$
Multichannel analyzer	2048 channels
Communication interface	RJ45
Power supply	220V AC, 50Hz
Operating environment	5°C~30°C, relative humidity 30%~80%
Weight	<20KG