



VF NUCLEAR



NUCLEAR
POWER PLANTS



WASTE
MANAGEMENT



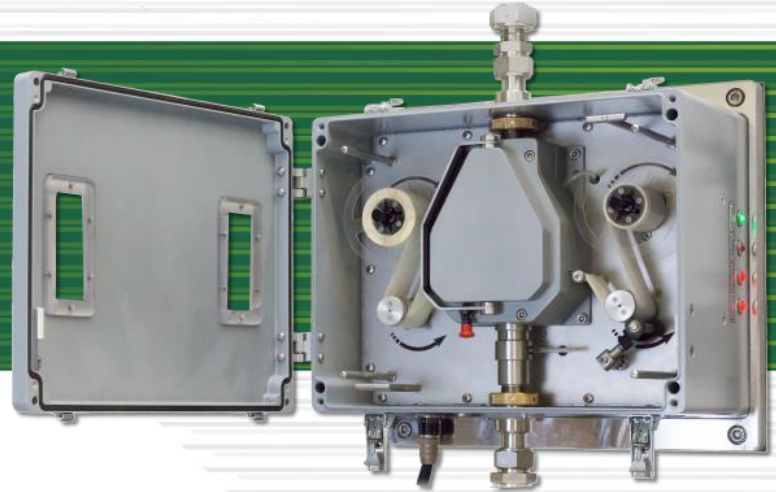
RESEARCH
CENTRES



INDUSTRY
& MANUFACTURING

CPD-14

CONTINUOUS PARTICULATE DETECTOR



MAIN ADVANTAGES

- Moving filter tape
- Months of independent operation
- Continuous or periodic filter movement
- Radon/Thoron compensation
- Background compensation in real time
- Easy maintenance

PURPOSE

CPD-14 continuously measures the volumetric activity of alpha and beta active aerosols in the air. The detector is used to protect personnel in monitored areas against internal contamination by radioactive particles.

The air sample enters the detector module, which is mounted within a hermetically sealed box, through an inlet fitting. The air flow then passes through the filter tape, the slot flow rate meter and exits by the outlet fitting.

Aerosol particles are trapped on the filter tape. Three silicon detectors are positioned close to the filter tape to ensure measurement of captured aerosol activity with maximum efficiency. The fourth detector is designed for background compensation. An LED check source is used to check the detectors' correct functioning.

The device is equipped with a pressure sensor that checks the clogging or tearing of the tape by monitoring the pressure loss across the tape.

The detector can be equipped with an internal lead shielding, for work in increased radiation background.

SPECIFICATION

Detectors	4 × Si - PIN
Measuring range	
• alpha (^{241}Am)	0.05 to 3.9E+5 Bq/m ³
• beta (^{36}Cl)	0.5 to 5.0E+5 Bq/m ³
Filter tape	25 m
Aerosol filtration efficiency	min 90 %
Nominal air flow (adjustable)	30 l/min
Dimensions (W × H × D)	(430 × 230 × 450) mm
Weight	
• shielding 20 mm	43,5 kg
• shielding 0 mm	23,5 kg
Interface	RS-485
Power supply	24 V DC, max. 15 W
Temperature range	from 5 to 40 °C

MODELS

K1594-01	CPD-14 Detector
K1594-02	CPD-14 Detector with pump and flow control mounted on a metal frame

CONTINUOUS AEROSOL DETECTOR

OPTIONAL FEATURES¹

Model	K1594-01	K1594-02
Shielding	20 mm	20 mm
Flow rate meter	optionally	automatically
Intake and exhaust connections	freely from the place / hose attached with a clip / pipe with a nut M30×1.5	freely from the place / hose attached with a clip / pipe with a nut M30×1.5
Power supply	24 V DC, max. 15W	230 V 50 Hz / 110 V 60 Hz
Frame adjustment	-	frame with holes for mounting to the wall or floor / adjustable feet / wheels

¹ Optional features must be specified before ordering

OPTIONAL ACCESORIES

1-7002-00005 Aerosol filter tape 25 m long

RELATED PRODUCTS

CPM-300 Continuous Particulate Monitor



Continuous Particulate Monitor CPM-300