



VF NUCLEAR



NUCLEAR
POWER PLANTS



WASTE
MANAGEMENT



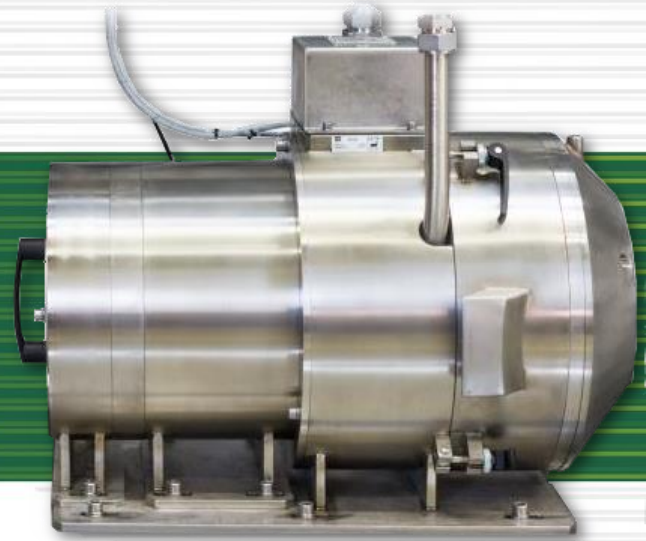
RESEARCH
CENTRES



INDUSTRY
& MANUFACTURING

CID-03

CONTINUOUS IODINE DETECTOR



MAIN ADVANTAGES

- Easy exchange of the iodine cartridge
- The detector is aimed at continuous measurement within the normal, emergency or post-emergency conditions of the NPP
- Seismic resistance
- The remote control

PURPOSE

The CID-03 is aimed at the detection of radioactive iodine in the air with a wide range of concentrations, starting from a very low level. CID-03 signals the iodine's presence to the persons in the radiation-controlled area to ensure their protection against internal contamination.

The air is filtered through an iodine cartridge filled with impregnated activated carbon, where is the iodine retaining. The radioactive iodine activity in the cartridge is measured with the NaI(Tl) detector.

The simple mechanism provides easy cartridge replacement, while keeping tight geometry. To stabilize the detector is used check source ¹³⁷Cs.

The detection system is shielded with 1, 5 or 10 cm thick lead.

SPECIFICATION

Detector type	scintillation NaI(Tl)
Filter media	iodine cartridge TC-45
Cartridge capture efficiency	96 %
Measuring range (¹³¹ I)	2,5E+00 to 3E+06 Bq/m ³
Shielding (Pb)	1 / 5 / 10 cm
Flow	30 l/min
Weight	
- shielding 1 cm	60,3 kg
- shielding 5 cm	246,4 kg
- shielding 10 cm	610,7 kg
Dimensions (W × H × D)	
- shielding 1 cm	(541 × 332,4 × 307) mm
- shielding 5 cm	(609 × 473 × 311) mm
- shielding 10 cm	(658 × 494,5 × 424,2) mm

ACCESSORIES

1-7004-00003	Iodine cartridge with activated carbon impregnated with 5 % TEDA
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Specification subject to change without prior written notice.

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