



CPO-Smart

Small Objects Monitor



Nuclear
Power



Homeland
Security
& Defense



Industrial and
Manufacturing



Healthcare



Labs and
Education

OVERVIEW

The **CPO-Smart** is intended for checking and indicating non-contamination of small objects in controlled areas of Nuclear Power Plants.

The **CPO-Smart** is using the proven technology of existing Small Objects Monitor of Mirion Technologies with additional and innovating capabilities.

Using a spectrometric approach, the **CPO-Smart** exceeds the basic contamination measurement by indicating the level and type of contamination.

The **CPO-Smart** reduced measurement time optimizes the flow of workers. It also provides a unique capability of quick adaptation to background variations.

The **CPO-Smart** features an intuitive graphical user interface and a compact touch screen for easy display of additional data, based on level of access.

KEY FEATURES

- **Reliability:** proven plastic scintillator technology
- **Ergonomics:** user-friendly and intuitive graphical interface
- **Performance:** measurement time automatically shortened thanks to internal algorithm
- **Reactivity:** unique adaptation capability to background variations
- **Intelligent:** categorisation of contamination, NORM discrimination and corrected activity count
- **Safety:** designed for secure installation and transportation, modular shielding can be installed on-site.

PHYSICAL CHARACTERISTICS

- Chamber dimension 335*28*37 cm (131.9*11*14.6 in) (H x W x D) or 36 l (1.27 f³)
- 6 or 4 large plastic detectors 35*35*5 cm (13.7*13.7*2 in)
- 8 spectrometry channels
- Spectrum based stabilization for temperature and drift compensation
- Energy threshold: 50 keV,
- Measurement range: 10 Bq to 106 Bq
- Homogeneity ± 15% for 6 detectors
- Energy uniformity ± 20%
- Background monitoring: automatically adjust count time to measuring goals, suppression of quick variations, quick follow-up of background variation
- Automatic calculation of measurement time according to threshold, background, risk of false positive and detection probability
- Spectrum weighted activity
- Localization indication

ELECTRICAL CHARACTERISTICS

- Power supply : 110-230 V
- Backup > 10 min.
- 2 external USB connectors
- LAN connection via cable gland

ENVIRONMENTAL CHARACTERISTICS

- Operational temperature : + 5°C to + 45°C (41°F to 113°F)
- Storage temperature : - 25°C to + 60°C (-13°F to 140°F)
- Compliant to EC EN 61000-6-2, EN 61000-6-4 and EN 6110-1
- ISO 11929:2010

MECHANICAL CHARACTERISTICS

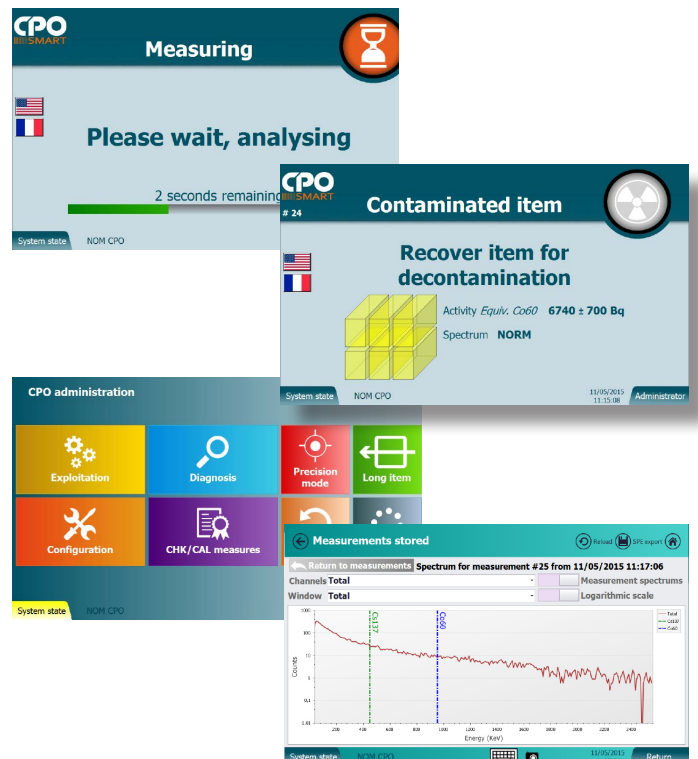
- **Dimensions**
 - 900 x 510 x 620 mm (35.4 x 20 x 24.2 in) (H x W x D) without shielding
 - 900 x 610 x 620 mm (35.4 x 24 x 24.2 in) (H x W x D) with shielding
- **Weight**
 - 220 kg (589.4 lbs) with a 5 mm (0.19 in) shielding
 - 600 kg (1,607.5 lbs) with a 25 mm (1 in) shielding
 - 900 kg (2,411.3 lbs) with a 50 mm (2 in) shielding

Measurement time for 6 detectors with an Co-60 alarm threshold of 150 Bq

Shielding Thickness (mm lead equivalent)		5	25	25	50	50	50
BkG (nSv/h)		100	100	300	100	300	1000
Measurement time Co-60 (s)	Max	35	5	9	3	3	6
	Mean	13	3	4	2	2	3

FUNCTIONAL CHARACTERISTICS

- 2 LCD color touch screen 10"
- Audible alarm
- Item detection by camera or scale (option)
- 2 doors mode, 1 door only, long object mode
- Quick measurement (minimized duration) and precise measurement (fixed duration)
- Protected access for user settings, diagnosis or configuration
- Assisted diagnosis and calibration measurement
- Reference isotope choice
- Measurements, background, availability, log
- Detailed results saving, picture and spectrum
- Export on USB or network



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