MIRION TECHNOLOGIES

Radiation. **Safety.**

# FastTrack-Vehicle™ XL

Truck Monitor

Nuclear Power

Homeland Security & Defense

Industrial and Manufacturing

Healthcare

Labs and Education

**NEW**

## OVERVIEW

The FastTrack-Vehicle™ XL is setting new standards in radiometric screening of trucks and vehicles.

It delivers a robust performance under circumstances a conventional gamma monitor would produce a false alarm, or even worse go into genuine alarm without actually being able to locate the vehicle or object carrying a source.

The monitor combines the FastTrack technology with highly sensitive GammaFibre™ detectors, low energy response, and NORM (naturally occurring radioactive material) recognition, making the FastTrack-Vehicle™ XL a reliable partner for monitoring truckloads of vehicles in very short time.

## KEY FEATURES

- Detectors 6 x 8 litres active volume per monitor cabinet
- False alarm prevention
- Excellent detector homogeneity due to fibre technology
- High sensitivity: 40 kBq (Co-60)
- Easy assembling: plug & play
- Web server interface supporting remote services
- Locating the source in the object
- Automatic background subtraction for heavy loaded trucks also in high background

Health Physics

# FastTrack-Vehicle™ XL Truck Monitor

## MIRION FASTTRACK TECHNOLOGY

The Mirion FastTrack technology is based on an algorithm for real-time detection of radioactive contamination. 3 detector modules (see fig. 1 in red/green/blue) are consecutively arranged on both sides of the gate, parallel to the moving object to measure. The signals of each detector compare to the others chronology and by pulse rate, which allows the conclusion about the source passing through the monitor inside or out, and the source's location.
Plus it leads to better detection limits.

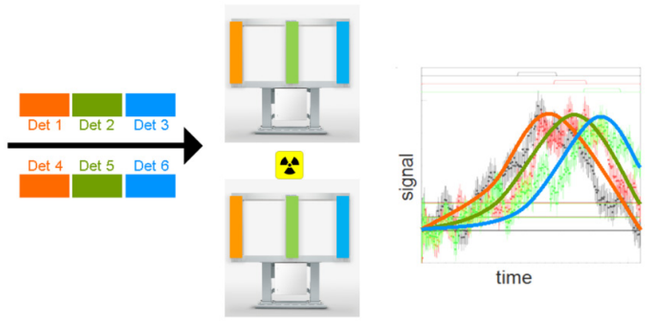


Fig. 1: FastTrack technology concept

## UNIQUE FILTER SETTINGS

The corresponding sensors detect an object moving through the monitor. The result links to various filters reducing the false alarm rate significantly. The "external contamination filter" for example is taking care that only a source passing through the monitor will trigger alarm, while the "non-dynamic filter" recognizes sources outside the monitor and still allows (non-contaminated) objects to pass the monitor through. See also fig 2.

## MIRION FIBRE TECHNOLOGY

For the highest performance requirements, the state-of-the-art Mirion fibre detector technology utilizes scintillating fibre detectors that feature the industry's lowest area of dead zones. This results in an exceptionally high uniformity of measurement and an outstanding sensitivity. The reliable detector elements are designed for an economic and robust operation with minimal downtime.

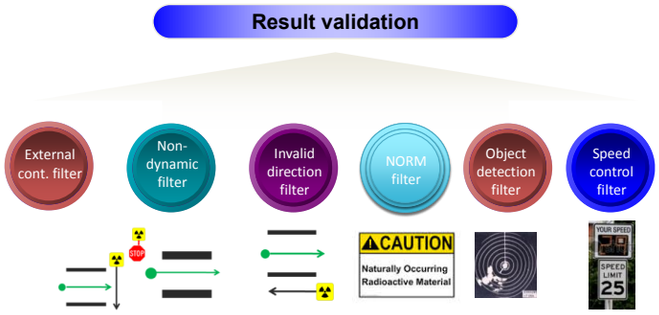


Fig. 2: Unique filter settings for
quick measurements with reliable results

## TECHNICAL SPECIFICATION

| | |
|---|---|
| Dimensions | 2453 x 2535 x 262 mm |
| Weight | 2 x 520 kg |
| Detectors<br>active monitor vol. in total | 2 x 6 GammaFibre™ detectors 96 litres |
| Lead shielding | 15 mm |
| MDA | 40 kBq, Co-60<br>(distance of cabinets 4 m,<br>speed up to 20 km/h) |
| Energy range | 30 keV - 3 MeV |
| Operating software | robust, real-time, multitasking QNX |
| Compliance | ANSI 42.35, IEC62244, IAEA NSSI, etc. |

## OPTIONS

| |
|---|
| Neutron detection |
| Cameras |
| Traffic lights |
| Barrier interaction |
| PDF print, network print |
| Barcode ticket print after event |
| CeMoSys™ client |


**> DEUTSCHLAND - HAMBURG**
T: +49 40 85193 0 | F: +49 40 85193 256 | E: info-de@mirion.com

**> USA - SMYRNA, GEORGIA**
T: +1 770 432 2744 | F: +1 770 432 9179 | E: info-us@mirion.com

**> FRANKREICH - LAMANON**
T: +33 490 595959 | F: +33 490 595518 | E: info-fr@mirion.com

**> FINNLAND - TURKU**
T: +358 2 4684 600 | F: +358 2 4684 601 | E: info-fi@mirion.com

**> CHINA - SHANGHAI**
T: +86 21 6180 6920 | F: +86 21 6180 6924 | E: info-cn@mirion.com




**The FastTrack algorithm is winner of the Counter Terror Expo Excellence Award.**