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## Notat

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Til: E-214 og E118 Lab bruker - HMS ansvarlig

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Kopi til:

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Frå: Delphine Leroy

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Signatur:

## CO and H<sub>2</sub> detector in lab E214 and E118

For your safety, gas detectors have been installed in the laboratories E214 and E118 at IMT, Agv2b. In lab E-214, there are one H<sub>2</sub> detector on the ceiling and two CO detectors on the wall, at head height on both sides of the lab.

In lab E-118, there are one H<sub>2</sub> detector on the ceiling and one CO detector in the middle of the lab at head height.

In case of leakage there are three alarm levels:

- A1, alarm 1: blue light blinking in the lab, over the door outside the lab and siren in the lab
- A2, alarm 2: red light blinking in the lab, over the door outside the lab and siren in the lab. This alarm level is connected to the main alarm in the building. The building must be evacuated. The fire station is automatically contacted and aware off a flammable/toxic gas leakage.
- A3, alarm 3: in our case, same as alarm 2.

We are now in a testing period that should last a couple of weeks. The system is not connected yet to the main alarm system. See below the alarm level settings for now on. We check during the testing period if those levels are adapted to the activities we have in the lab.

- For ppm CO:
  - A1=50ppm
  - A2=80ppm
  - A3=100ppm
- For LEL\* H<sub>2</sub>:
  - A1 = 15%LEL
  - A2 = 30%LEL
  - A3 = 50%LEL

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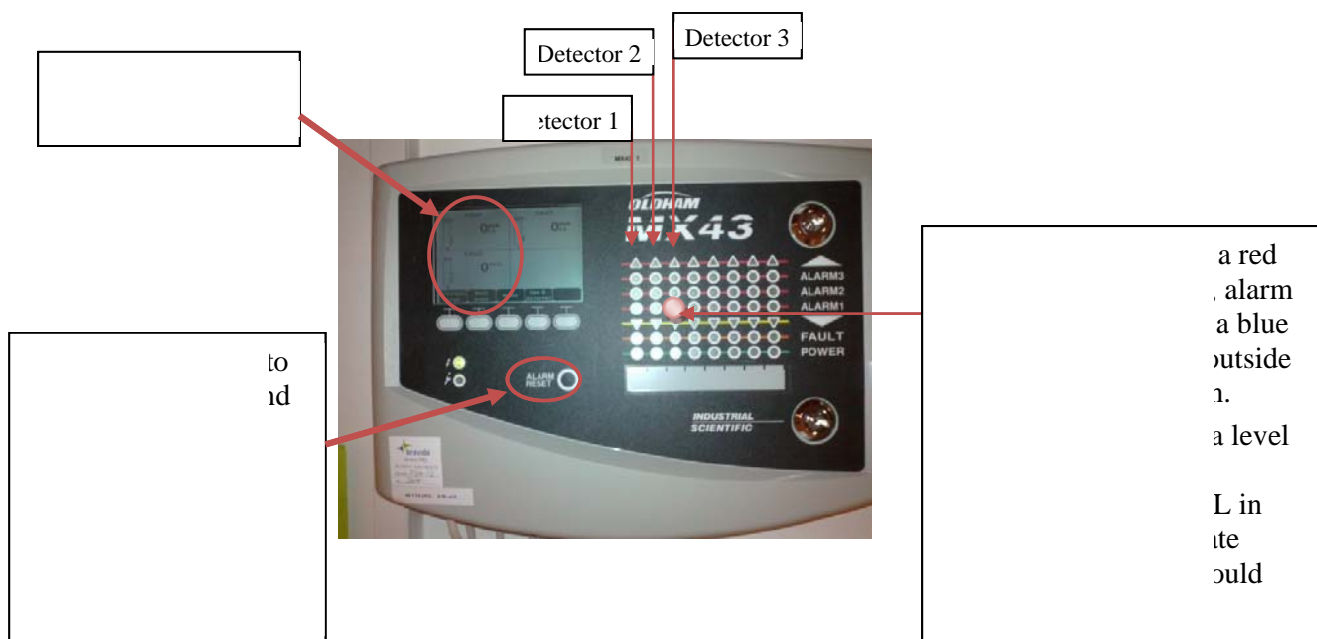
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Here is the picture of the control box unit outside of the E214 lab.



### Change of gas bottle

It is possible to temporarily disconnect the system to the building alarm when changing gas bottle. This can be done by contacting the vaktmester 91897394. The alarm will be disconnected from the building. If there is leakage while you are changing bottle there will be warning light in the lab but no evacuation of the building.

In case of power cut, the detectors and alarm are connected to 12hours backup batteries.

A service agreement will be arrange with Bravida so they will come every 7 month to check the equipment.

**\*Lower explosive limit (LEL):** The lowest concentration (percentage) of a gas or a vapour in air capable of producing a flash of fire in presence of an ignition source (arc, flame, heat). At a concentration in air lower than the LEL are gas mixtures are "too lean" to burn.