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AUTRO SAFE

Self Verify®

Interactive Fire Alarm System

ID: AutroSafe_intro_eng, 2002-05

AUTRONICA FIRE AND SECURITY

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Milestones in the development of Fire Alarm System by Autronica:

1959: The first fully transistorised Conventional Fire Alarm System in the world (BS-10)

1969: The first low voltage smoke detector (BJ-1)

1979: Autronica introduces the first Analogue Addressable Fire Alarm System (BS-3)

1989: Autronica launches the first Analogue Addressable Fire Alarm System with active handling of detector signals *(DYFI)*

1999: Autronica delivers the first self-verifying Fire Alarm System capable of controlling itself, interactive AutroSafe SelfVerify

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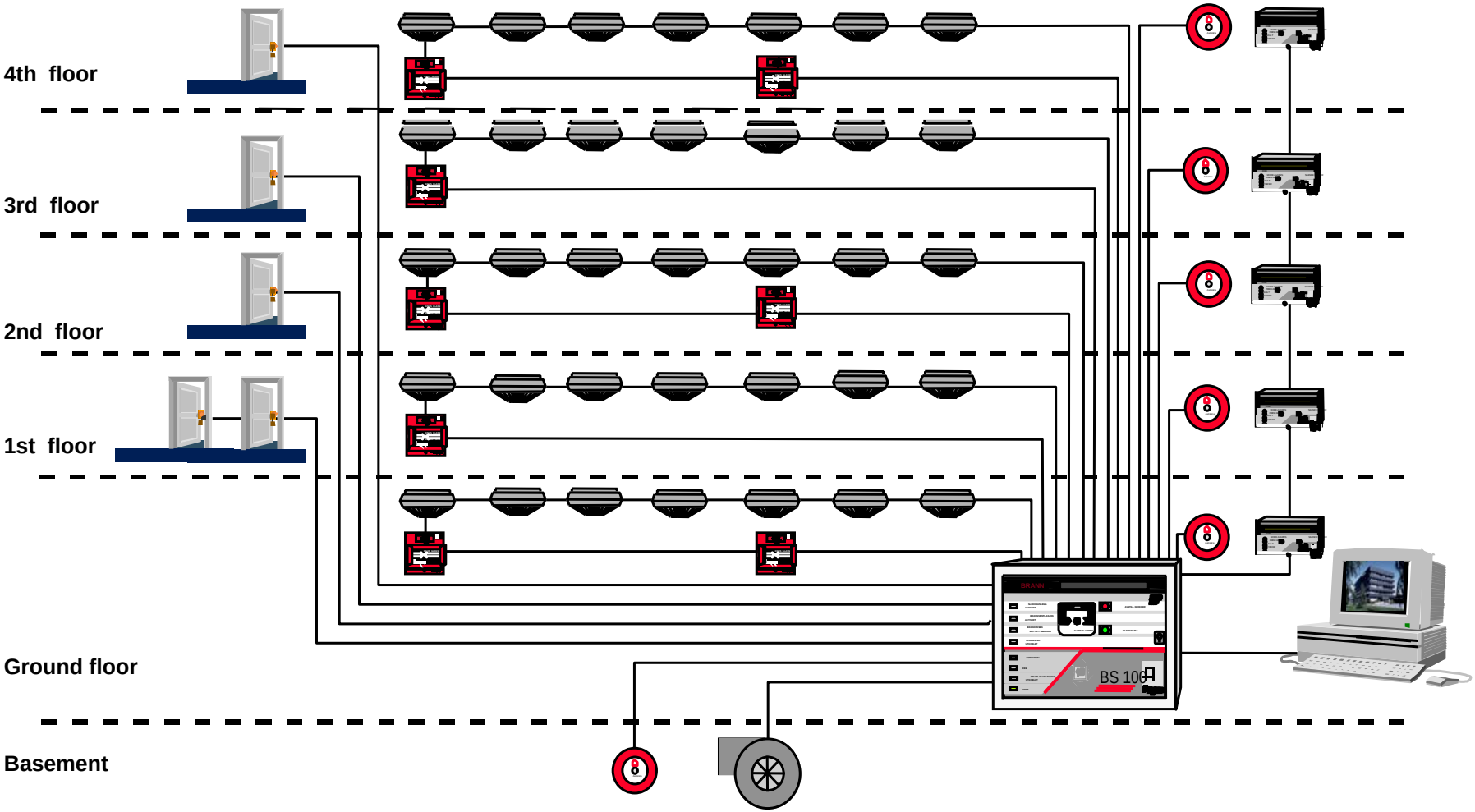
Traditional AnalogueAddressable centralized Fire Alarm System:



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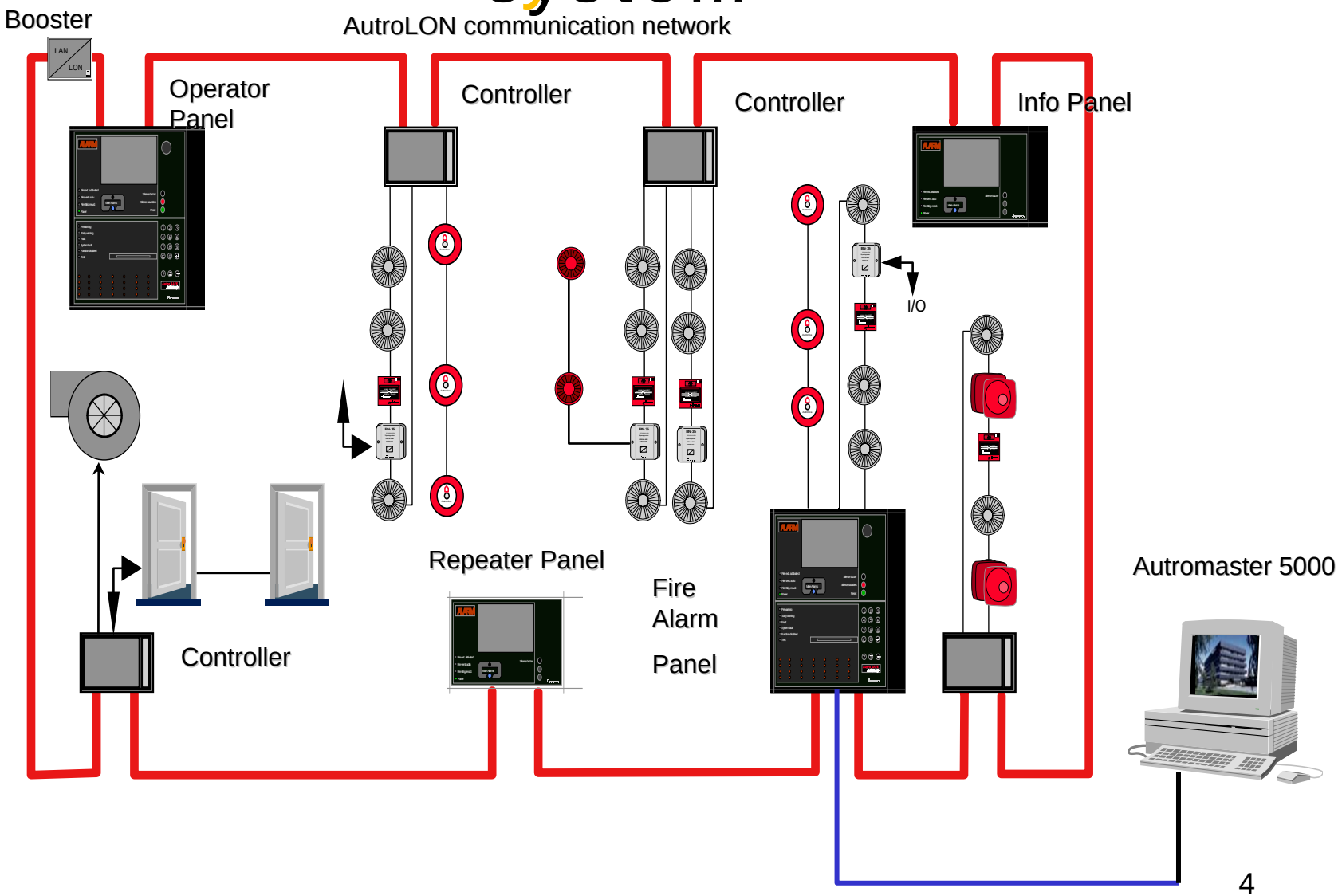
AutroSafe, the unique distributed system



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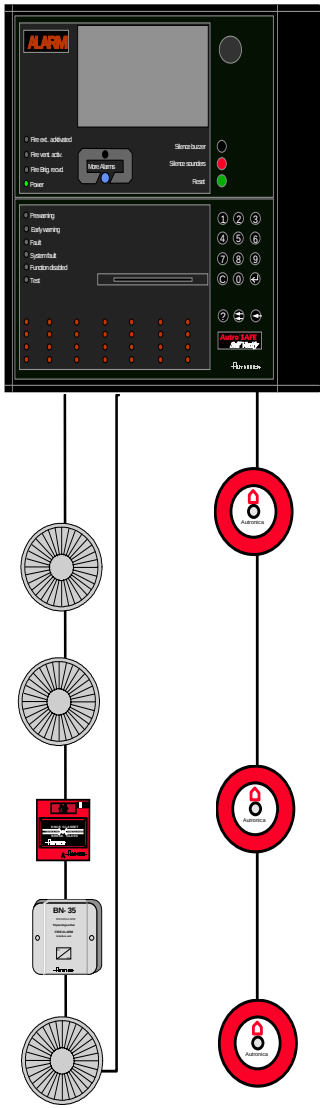
EN-54 Regulations



Construction

General system requirements:

- Maximum 512 points shall be lost at one system failure (main processor failure)
- One fault in a random loop (i.g. detector or alarm loop), shall not affect the control panel unit or any other loop
- One fault in a random loop (i.g. detector or alarm loop), shall not affect the control panel unit or any other loop
- When more than 32 points are installed in one loop, one failure shall not cause the loss of more than 32 points

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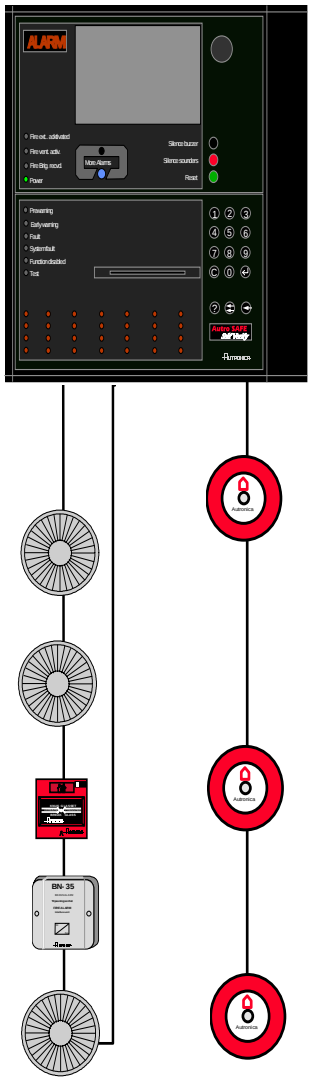
Interactive Fire Alarm System:



- Duplex communication in the detector loop
- Data processing in every point
- Decision about incidents is taken by the point in the detector loop
- Display must show Alarm, Fault, Disablement and test at the same time
- Safety-polling from the control panel

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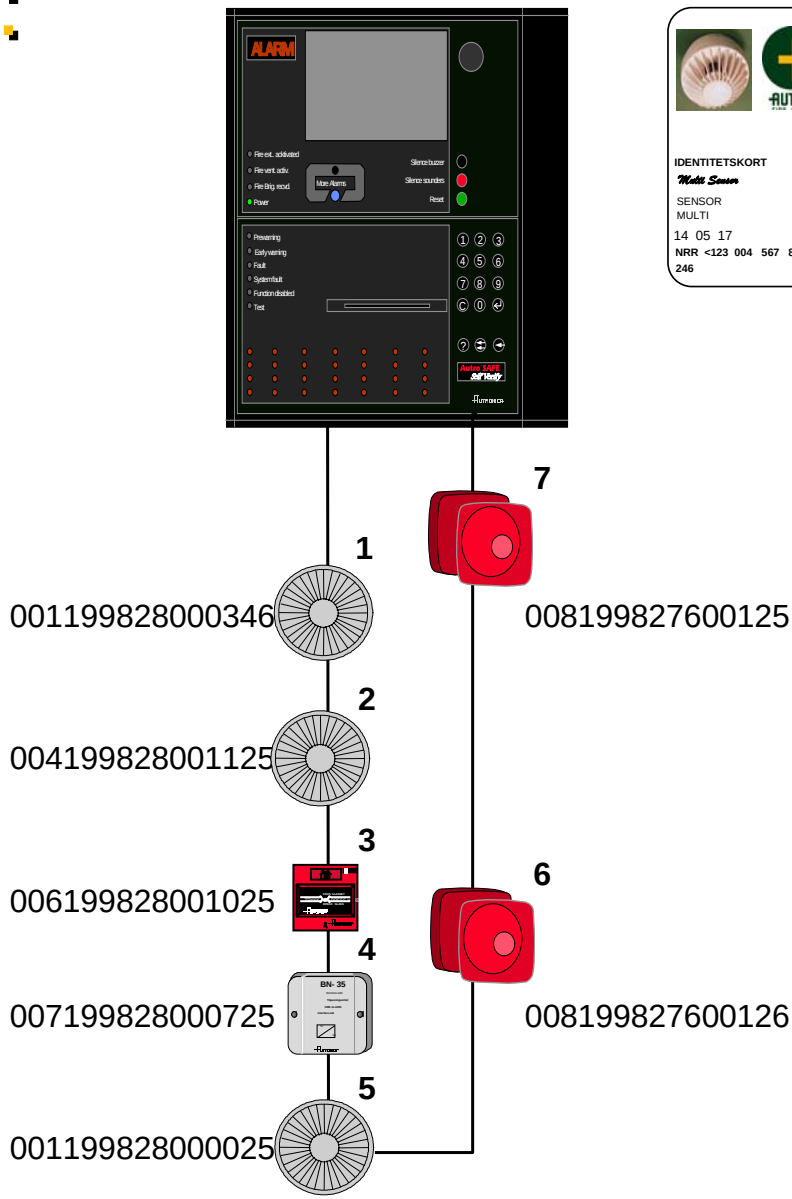
Automatic Addressing:

Each detector has a uniqe ID, and automatic addressing gives fast commissioning, fewer faults and easy retrofit

When powering up, the system will automatically find all units “ID’s”, register and “remember”...

...and simultaneously register each detectors place in the loop



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Panels, displays and controllers with SelfVerify: Maximum flexibility. Simple to read, understand and operate.

Operator's Panel
Connected to AUTROLON
Operates/controls the whole Fire Alarm System, or parts of it
All panels have 16x40 character information displays

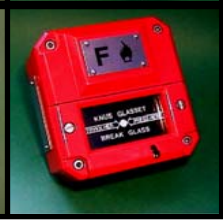
Repeater panel
Connected to AUTROLON
Controls part of the Fire Alarm System

Information Panel
Connected to AUTROLON
System information only

Loop Controller
Connected to AUTROLON
Controls detector loops and I/O-functions

AUTRONICA FIRE AND SECURITY

Complete range of products for any application

Series / Units	Heat detectors	Optical smoke detectors	High sensitive smoke detectors	Multisensor smoke detectors	Manual call points	Interface/ address units	Sounder
Series 200 Standard Interactive Addressable units							
Series 300 With SelfVerify functions							
Series 500 With special protection for marine-, offshore- exi-applications							

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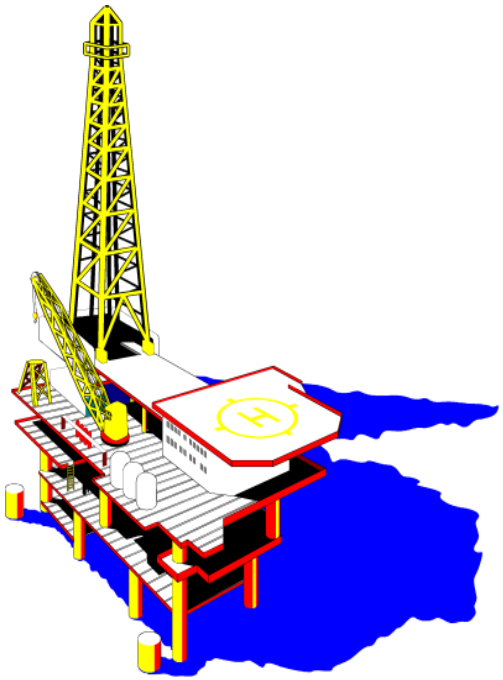
SelfVerify, why?



Statistics from Offshore:

- **40%** of all critical faults are faults on detectorchamber or electronics. Depending of system type, **some** or **none** of these failures are **not** detected.
- **45%** of all critical faults are functions left disconnected after manual testing.
- **5%** are detectors painted over and hence do not function.

Life Cycle Cost:

- Depending on system type, test periods, etc:
  Savings 30 – 70%

Same type of faults are expected on landbased systems, savings in Life Cycle Costs are however not supposed to be the same. Better service should mean savings.

Why Self Verification onshore

- Onshore security
  - Same failure rates expected
  - Inhibit problem, due to testing
  - Higher system reliability. Simpler and more reliable maintenance

- Onshore cost.
  - Not the same figures, but still possible to reduce cost on service

What is Self Verification

AUTRO SAFE Self Verify ®

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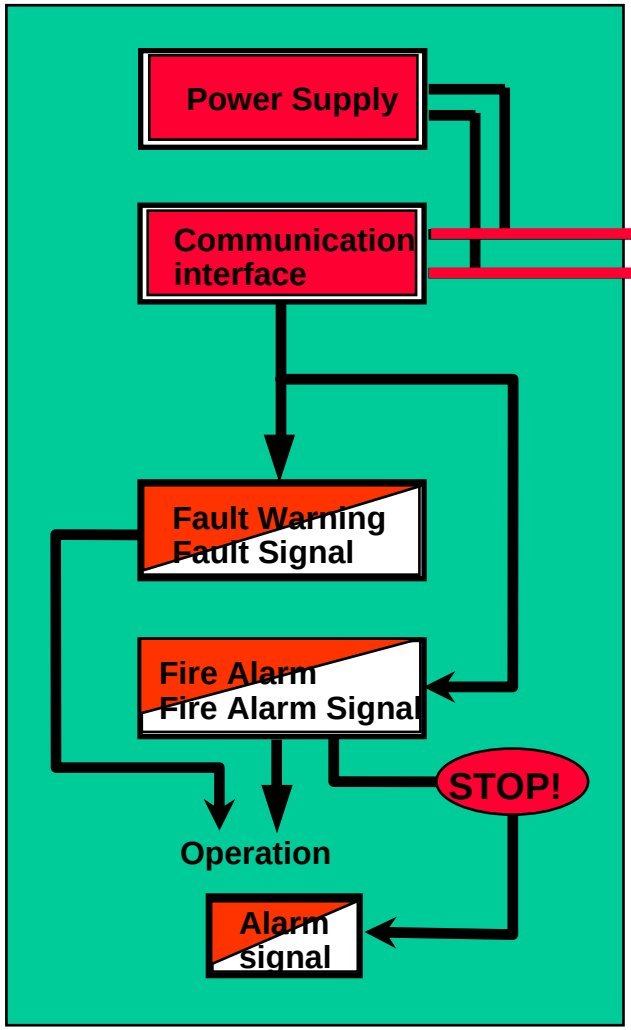
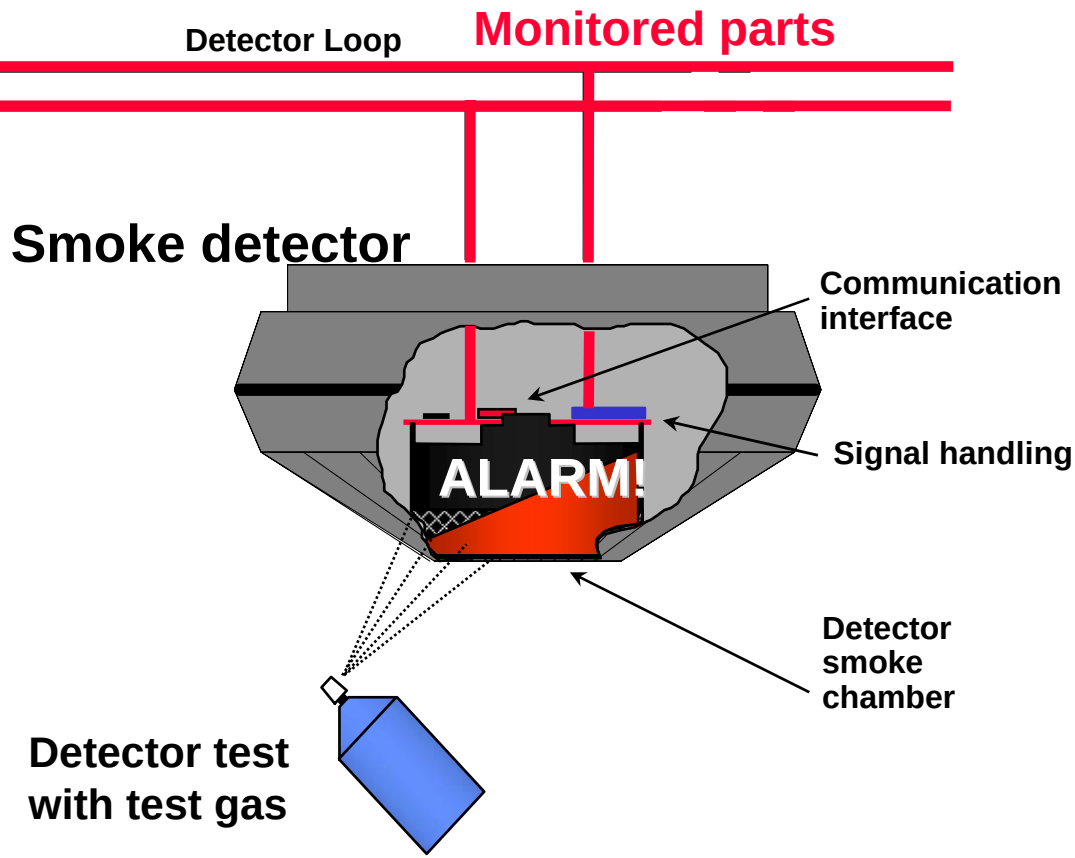
Standard analogue, addressable Fire Alarm System





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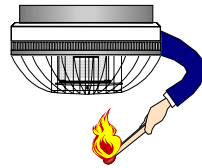
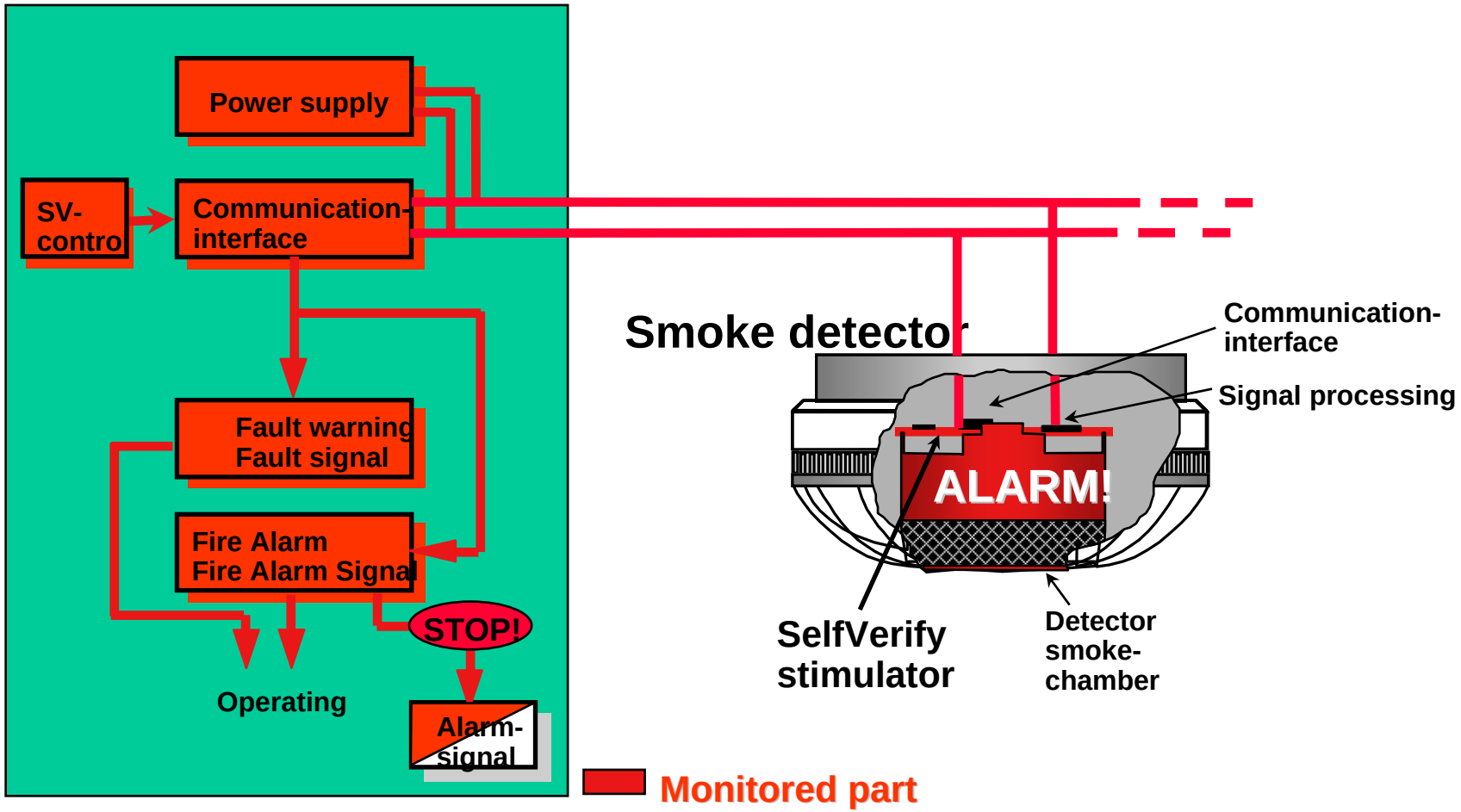
SelfVerify:
Fail safe detectors gives increased reliability and reduce maintenance cost dramatically





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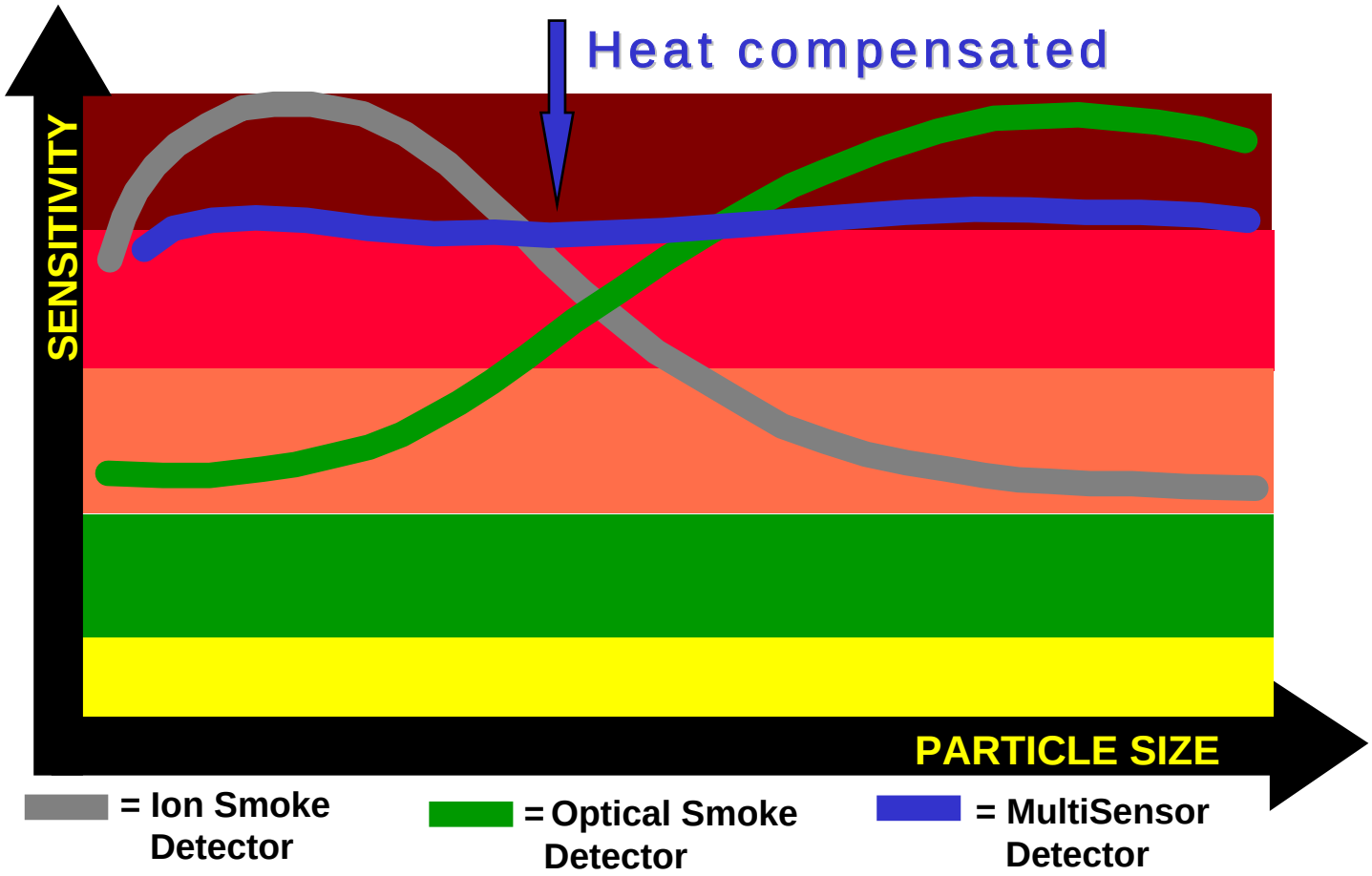
MultiSensor Smoke Detector:
Fastest and most reliable notification of an incipient fire



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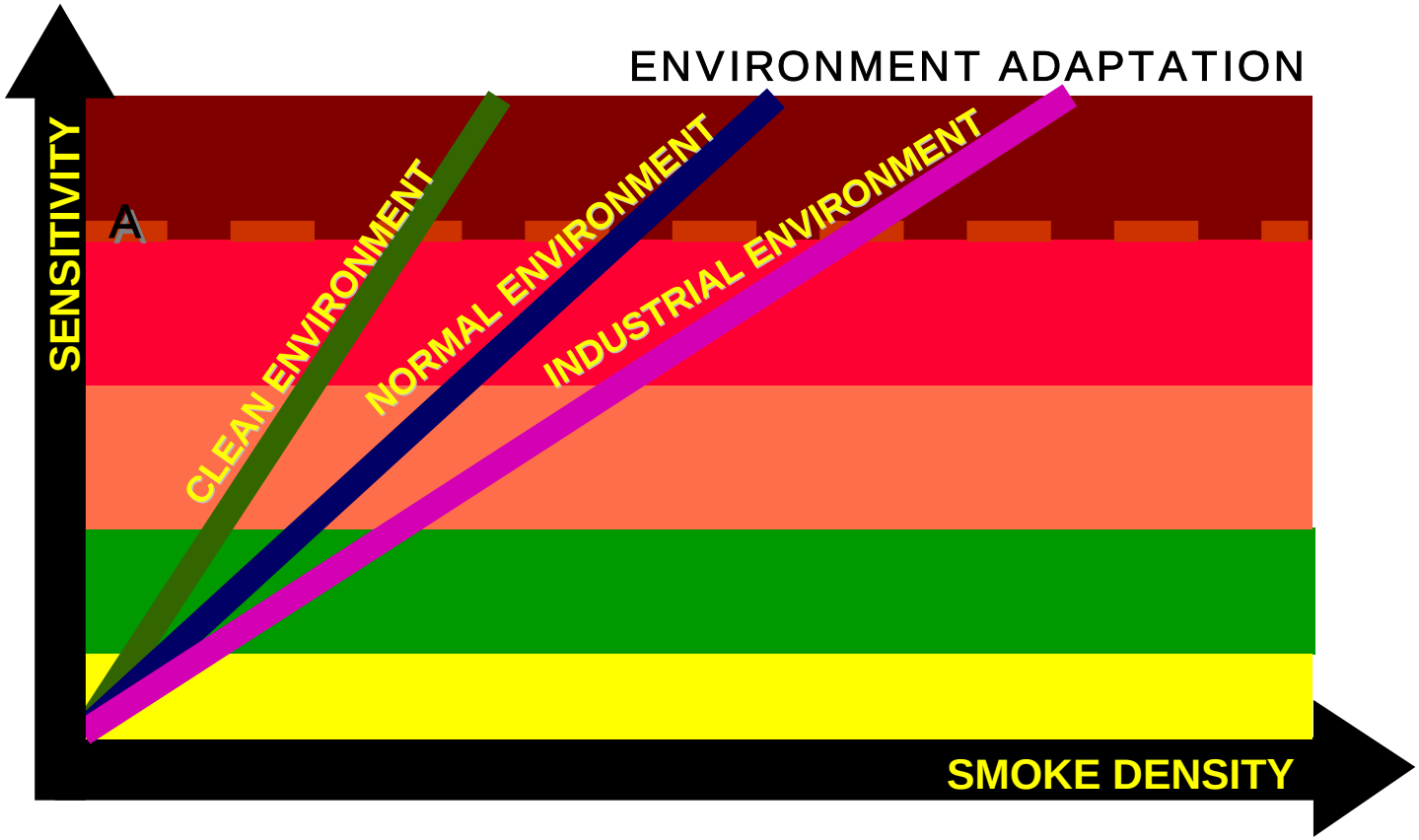
Detectors adapted to the local environment: Faster warning and fewer unwanted alarms



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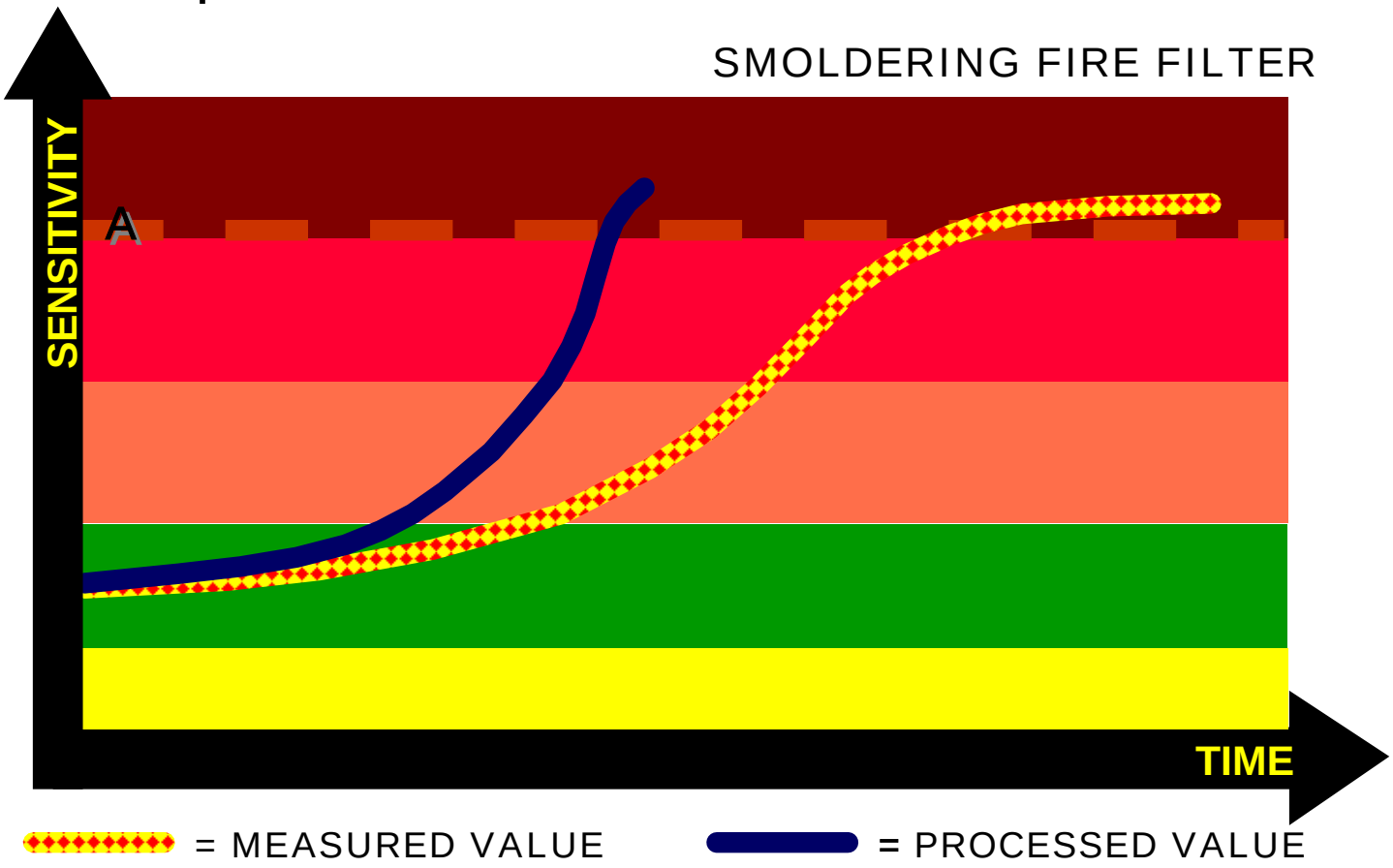
DYFI+ functions:

Reliable and fast alarm of slow fire development



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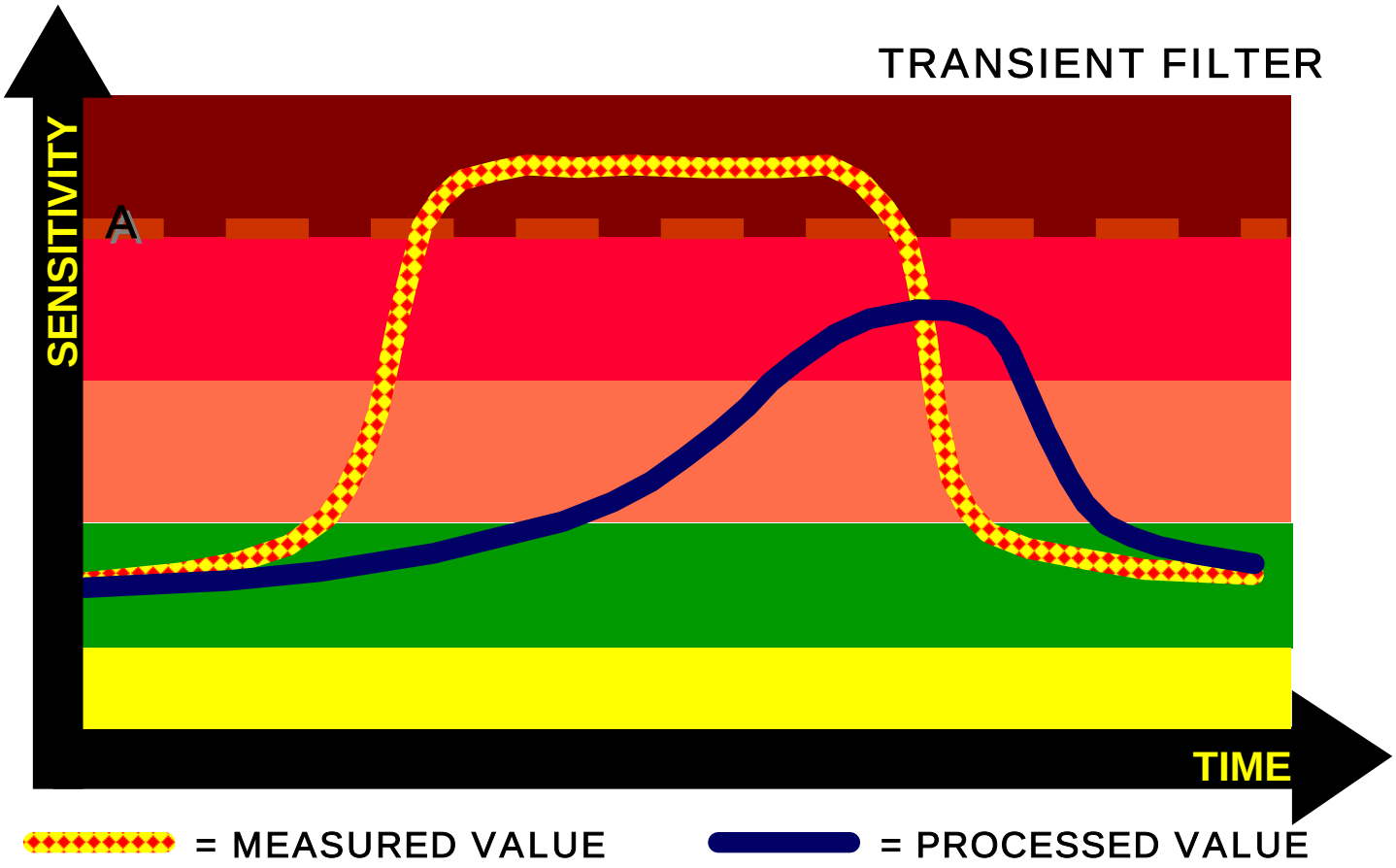
DYFI+ functions:

Filters out misleading phenomena that result in unwanted alarms



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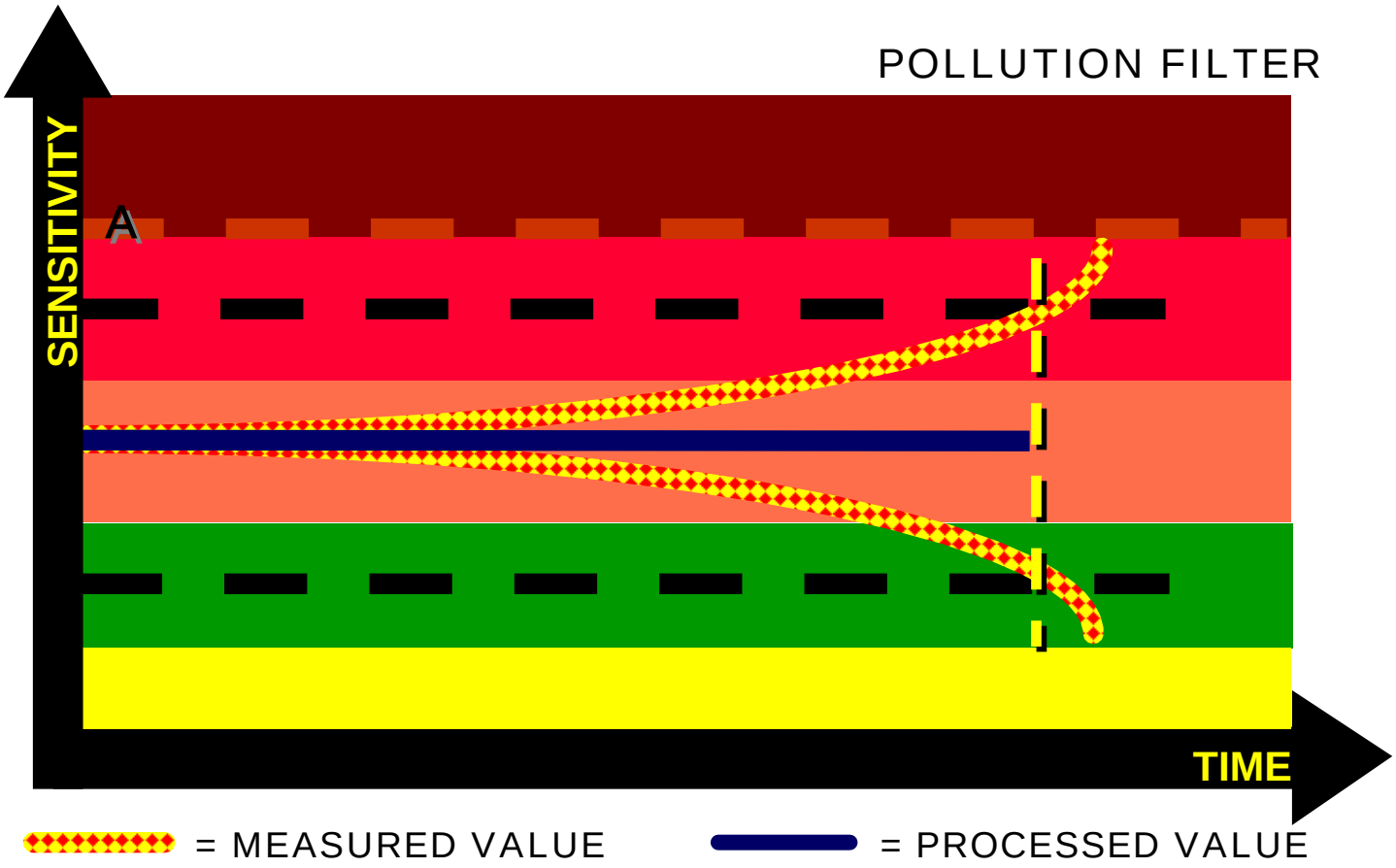
DYFI+ functions:

Fault warning before unwanted alarm or “dying” detector



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