



((•)) DT-300

PYROLYSIS SENSING

Early Fire Detection. Smarter Safety.



((•)) DT-300

What is **PYROLYSIS**

Pyrolysis is the breakdown of materials due to heat — without oxygen — and is the first step before a fire starts



WHY IT MATTERS

Pyrolysis helps us detect electrical fire risks early, before smoke or flames. It's essential for safety in homes, buildings, and electrical systems.

PYROLYSIS SENSING DT-300



PRODUCT INTRODUCTION

The **DT-300 Pyrolysis Sensing Electrical Fire Monitoring Detector** is a compact, high-precision device designed to detect **early signs of electrical fires** before visible smoke or flames appear. It works by sensing **pyrolysis gases**, the chemical emissions released when electrical wires or components overheat.

WHY EARLY PREVENTION MATTERS?



Electrical fires often start from hidden overheating.



Traditional alarms detect only after smoke or flames appear.



By then, damage may already be severe or uncontrollable.



The DT-300 detects danger earlier, during pyrolysis stage.



Provides critical lead time to respond and prevent fire.

Key Application Areas



Industrial Applications

- For manufacturing plants, factories, and high-voltage environments.
- Prevent downtime and protect valuable equipment.



Smart Buildings

- Ideal for energy-efficient buildings and critical infrastructure.
- Seamlessly integrates with building automation systems.

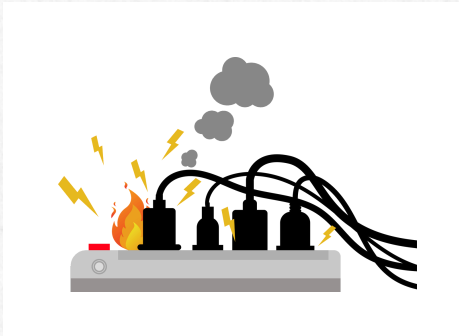


Panel-Level Monitoring

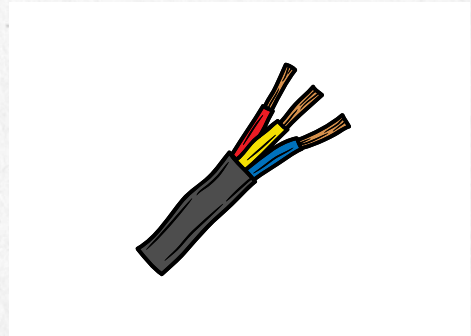
- Mounts directly in distribution boards or electrical cabinets.
- Detects issues at the source for localized protection.

Why Traditional Detectors Fail and **DT-300 Doesn't**

Overloaded Power Strips



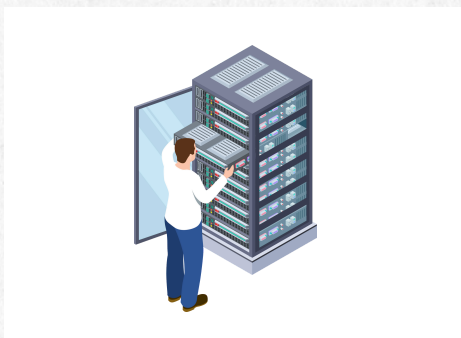
Aging Wires



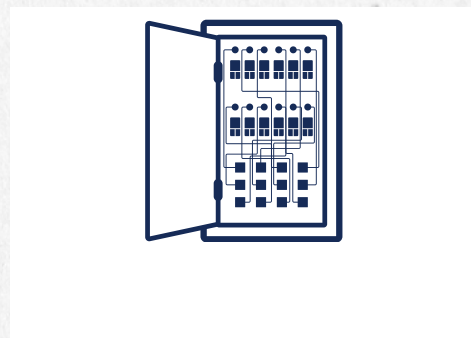
Where Traditional Detectors Fall Short

- React only to visible smoke or flames
- Delay in detection increases damage risk
- Prone to false alarms in dusty or humid environments

Office Server Rooms



Industrial Panels



DT-300: Designed for the Earliest Warning

- Detects pre-combustion pyrolysis gas
- Enables intervention before ignition
- Ideal for complex electrical environments where downtime is not an option

Core Features of DT-300

The DT-300 is equipped with advanced pyrolysis gas sensing technology that detects early signs of electrical overheating—long before smoke or flames appear. With RS485 communication, it integrates easily into building management systems for real-time monitoring. Its intelligent multi-stage alarm system distinguishes between pre-fire conditions and actual fire risks, reducing false alarms. Designed for high sensitivity and a wide operating temperature range, the DT-300 remains accurate and reliable even in harsh environments, making it a vital solution for proactive fire prevention.



Pyrolysis Gas Sensing Technology

- Detects abnormal thermal decomposition gases before smoke or flame is visible.



RS485 Communication Protocol

- Seamless integration into smart building or factory systems.



Intelligent Multi-Stage Alarms

- Differentiates between warning levels for pre-fire and active fire conditions.



High Sensitivity, Wide Temperature Range

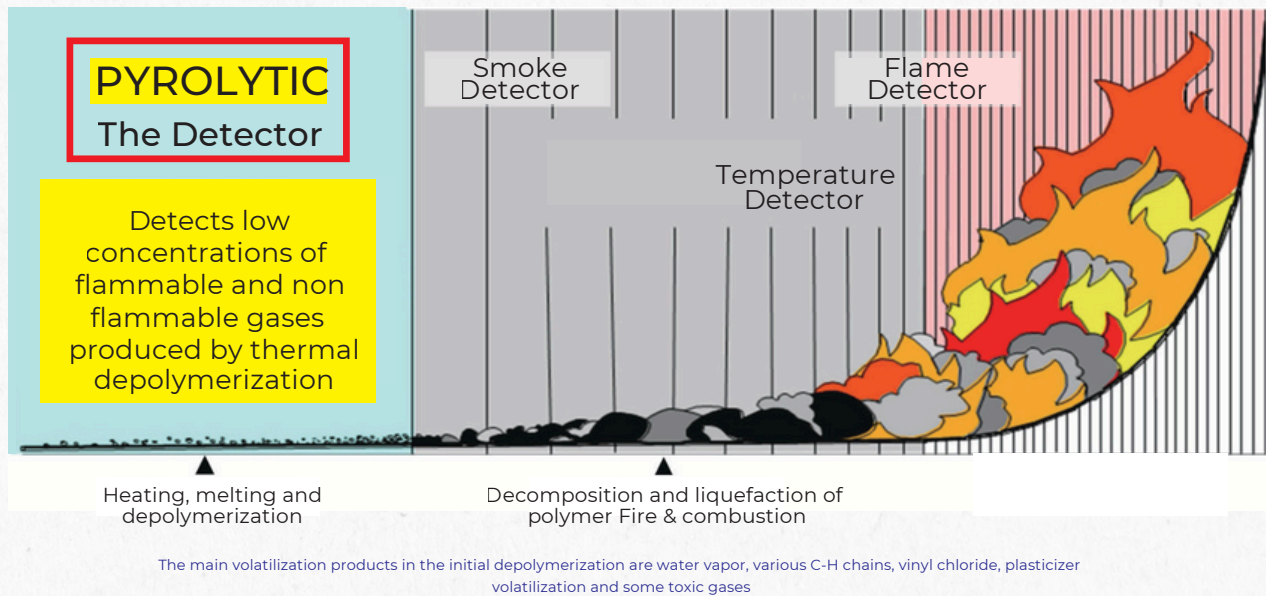
- Accurate operation from -10°C to 55°C ; no compromise in harsh conditions.



Self-Diagnostics & Fault Monitoring

- Ensures continued reliability with automatic status checks.

Technical Specifications

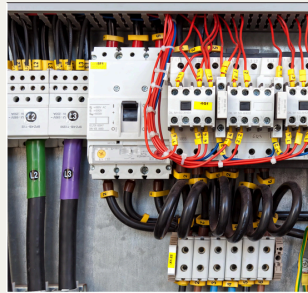


Technical Parameter	Pyrolysis Particle Type Electrical Fire Monitoring Detector
Working Voltage	DC24V wide voltage range DC18-30V
Working Current	35mA ±5mA
Working Humidity	≤95%RH
Ambient Temperature	-10°C - 55°C
Electromagnetic Compatibility	According to national standard GB16838
Alarm Threshold	0-2000 Unit level of pyrolysis particles
Detect Gas	Hydrocarbon gas (PVC material cables and electrical devices)
Communication Method	RS485 bus communication ≤1.5km

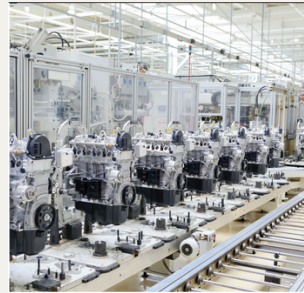
Where You Need It Most



Data Center



Electrical Control Panel

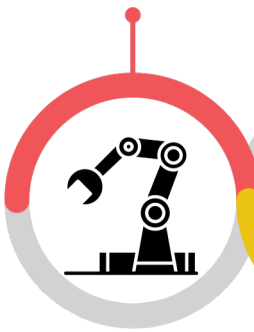


Factory Line



Public Infrastructure

Industrial Automation



Commercial Buildings



Power Distribution Panels



Server Rooms & Data Centers



Rail & Transport Infrastructure



10, Jalan PJU 6a/3a, Kampung Sungai Kayu Ara, 47400 Petaling Jaya, Selangor



+603 7710 0071
+603 7710 0081



www.sca.com.my
www.scaonline.asia



sales@sca.com.my

SCA[®]
DELIVERING EXCELLENCE