

# Pillard flame scanners

## Flame monitoring for all industrial burners



Real time flame monitoring compatible with all fuels

- Easy installation
- Proven and flexible technology
- Secure equipment
- Easy operation and maintenance

# Fives' ultimate solutions for real time monitoring of flame presence

Fives' complete range of flame scanners ensures a secured combustion process thanks to state-of-the-art detection technologies. Pillard flame scanners are adapted to different types of fuels and combustion processes.

## EASY INSTALLATION

- "All-in-one" design includes electronics control integrated within the flame scanner sight
- No remote box, nor cable needed

## APPLICATIONS / MARKETS (non-exhaustive list)

Pillard flame scanners are compatible with all type of fuels and can be used in the following industries:

- Energy
- Petrochemical
- Cement
- Chemical
- Steel
- Claus unit



Pillard flame scanners fitted on industrial burners

## EASY OPERATION AND MAINTENANCE

- Innovative IR remote control
- Flame level display directly on the detector



Remote control

## SAFE EQUIPMENT

Pillard flame scanners meet the most stringent safety regulations and compliances:

- ATEX / IECEx (EN 60079)
- SIL3 (EN 61508)
- TUV (EN 298)
- FM approvals

## PROVEN AND FLEXIBLE TECHNOLOGY

- Can be used in hazardous combustion areas
- Adapted to all customer requests whatever the power and sites constraints

# Proven technology for industrial burners flame monitoring and all types of fuels

## PILLARD RUBY PACKSCAN™

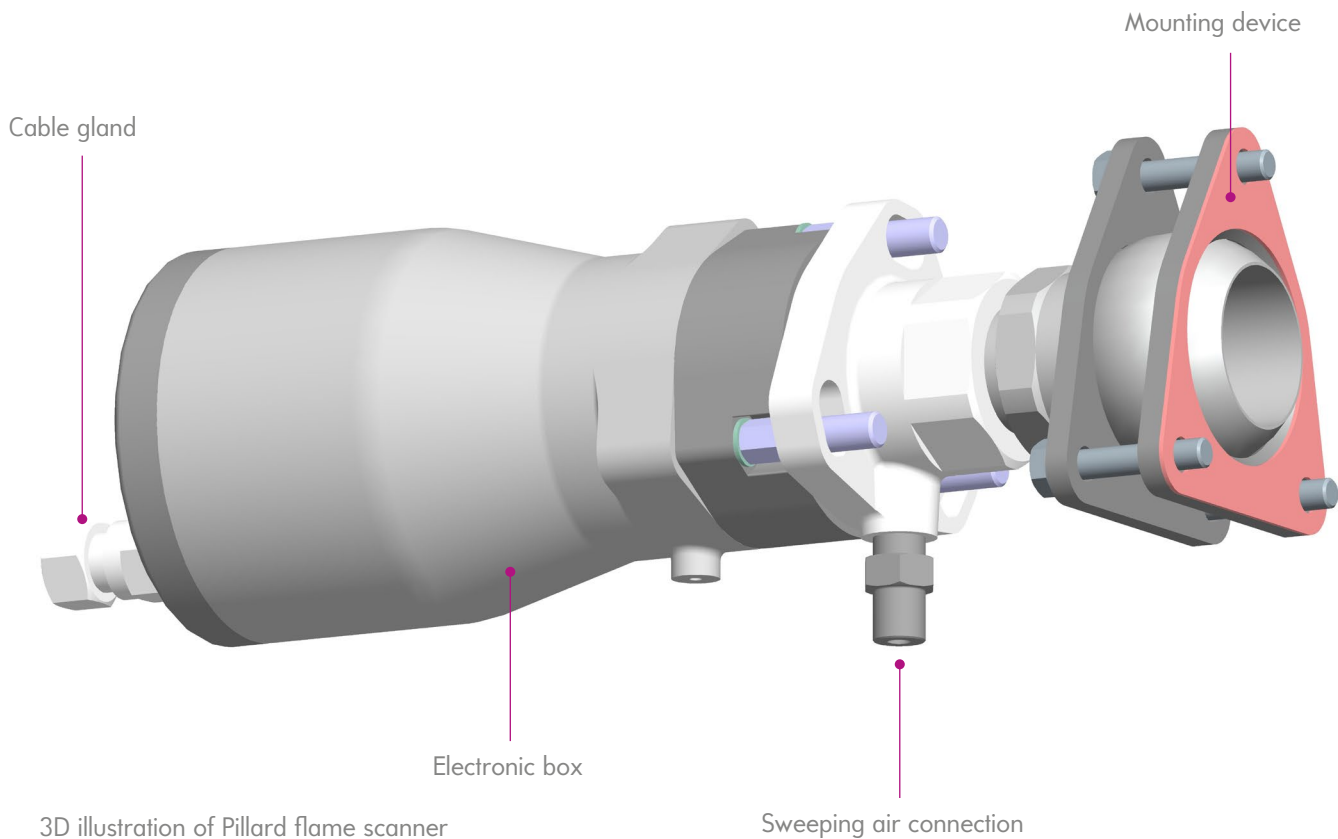
- Ultra-Violet radiation technology
- Monitors flame presence of gas and diesel oil

The sensor measures the flame presence as the Ultra-Violet radiation emitted from the flame gets in touch with the gas integrated in the sensor. The signal of the flame presence is ensured with a patented mechanical self-checking device, fitted within the electronic unit.

## PILLARD SAFYR PACKSCAN™

- Infra red technology
- Monitors heavy oil, coal or liquid fuel

A light sensor monitors the flame presence by measuring the flickering frequency of the flame. The measured frequency is then compared to a defined frequency threshold, thus providing the signal of either presence or absence of the flame. The electronic self-checking device guarantees the proper functioning of the sensor and the electronic parts.



3D illustration of Pillard flame scanner

## PILLARD DARKSCAN™ AND PILLARD DARKSCAN™ FLEX

- Pyrometric technology
- Monitors flame presence of acid gas and multi-fuel combustion

The flame detection is ensured by the measure of the temperature difference variation between two points in a flame. The electronic self-checking device checks the proper functioning of the sensor and electronic parts every second.

Fives has also developed a special flame scanner for flame detection within a rotary kiln, the **Pillard Darkscan™ Flex**. The electronic box installed on the front plate is connected to the sensor inside the rotary kiln thanks to a tailor-made connection.



Pillard Darkscan™

# Pillard flame scanners - Technical features and options

Technical features	
Power supply	24V DC (+10%,-15%), 10VA
Wave length	Pillard Ruby Packscan™: 185nm Pillard Safyr Packscan™: 320-1,100nm
Operating temperature	Pillard Safyr Packscan™ / Pillard Darkscan™ -40°C to +70°C
	Pillard Ruby Packscan™ -20°C to + 70°C (optional -40°C to +70°C)
Dimensions / Weight	360 x 130mm /4.8kg
Housing	Aluminum
Digital output	2 contact relays RT 250V – 2A
Analog output	4 – 20mA, 300Ohms max
Communication port	RS 485
Sweeping air flow rate	5Nm³/h
Sweeping air connector	3/8"NPT
Warranty	1 year
Cable features	
Standard length	10m
Outer diameter	11mm
Cross-section	9 x 0.75sq.mm + 4 x 0.34sq.mm
Admissible temperature range	-20°C to +105°C

## OPTIONS

- Infra-red RCI remote for parameters setting (N°LCIE 05 ATEX 6014 X)
- Flanged swivel mount
- Thermal insulator
- Junction box (ATEX version available)
- Ball valve for sight-tube shut-off
- Electrical supply unit (230VAC / 24VCC)
- 3 year warranty

## SERVICES

- Commissioning assistance
- Maintenance contract

Images are for describe purposes only, and may be subject to change.