VIGILEX®

SAFETY PROTECTION By STIF

HAZARD MONITORING SYSTEM & SAFETY EQUIPMENT

STIF ASIA
components for your success

English

A Modern and dynamic safety monitoring system

Using our considerable expertise within the storage and bulk handling industry we have designed a complete system to ensure the safety and protection of your equipment and personnel.

Innovation is a keyword in our design policy ensuring safety in your elevators and conveyors.

Within this brochure you will discover a complete modern system dedicated to protect your bulk handling machinery at all times.

The system can be accurately set to monitor, manage and analyse all defects, facts and report on productivity of your machines.

This information can be accessed day or night across the globe directly to your laptop, tablet or mobile phone.

We offer a complete range of hazard monitoring and safety equipment to handle a plant of up to 120 conveyors giving our customers the most economical of solutions available on the market.

SUMMARY

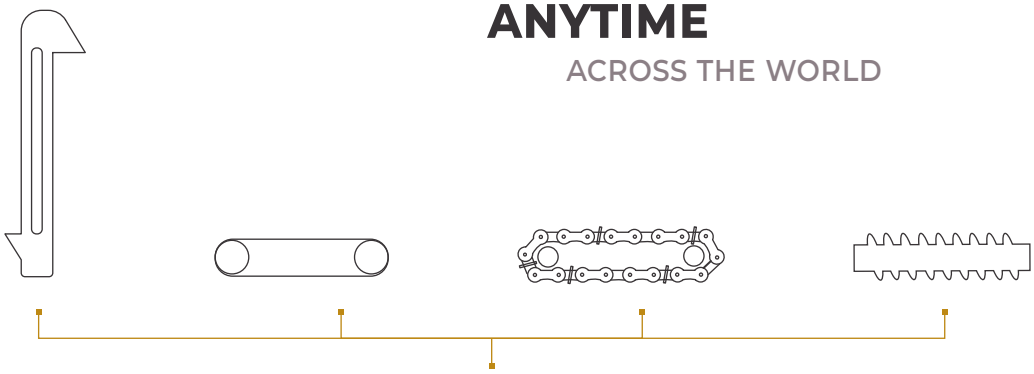
JET SYSTEM® CONTROL AND CONFIGURATION SYSTEM

The world's most advanced hazard monitoring system

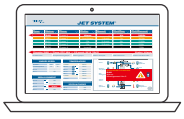
BE CONNECTED WITH YOUR CONVEYORS

ANYWHERE & ANYTIME

ACROSS THE WORLD



PLC — JET SYSTEM® — CLOUD



JET SYSTEM

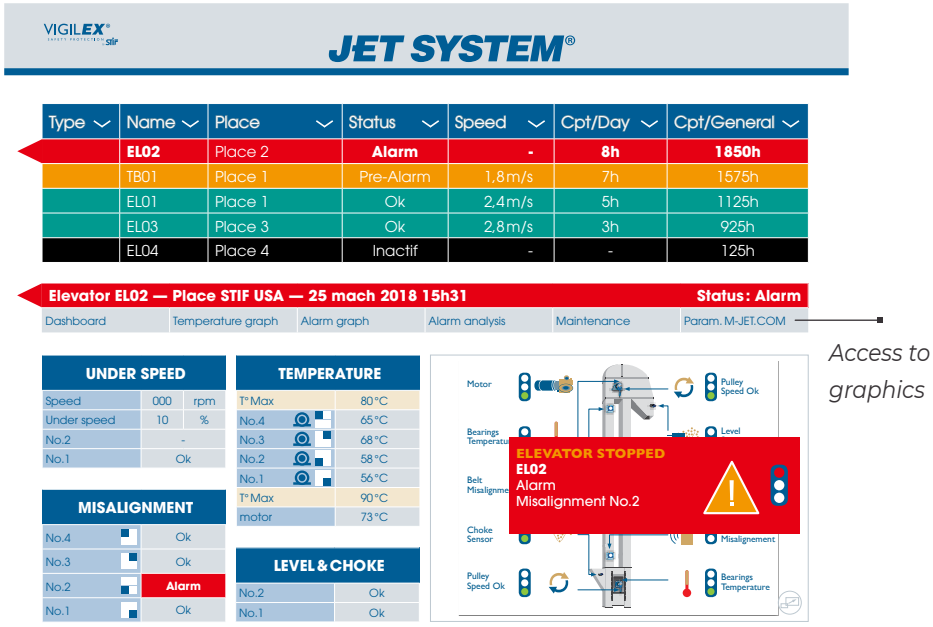
The smart way to manage your safety system

This configuration of the system gives complete control and feedback of your conveyors and elevators avoiding all associated hazards associated with under speed, misalignment, level & choke control, bearing and motor temperature which are the main ignition sources in explosion risks. By notifying you directly on defects and performance via your laptop, tablet or mobile phone you can effectively manage your plant anywhere on the globe ensuring your operation remains efficient with reduced downtime.

JET SYSTEM® CONTROL AND CONFIGURATION SYSTEM

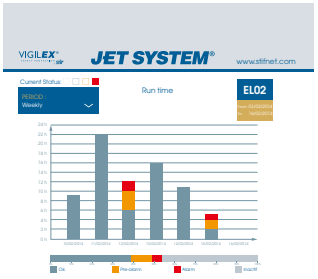
Capabilities with the JET SYSTEM and an Internet or LAN connected computer:

- Remote monitoring up to **120 conveyors** from the same display unit
- Unified viewing of data in real time
- Graphic display of historical data
- Alarm notification by sending email
- Viewing of alarms
- Support tools to manage preventive maintenance

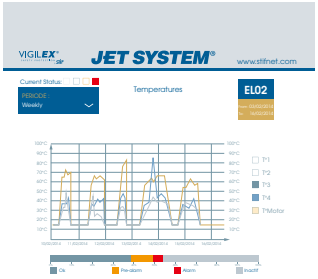


Access to graphics

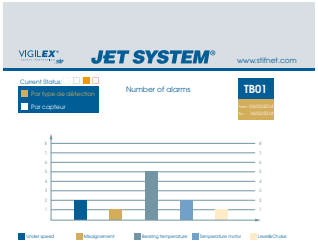
jetmonitoringsystem.com
is available on all your mobile devices



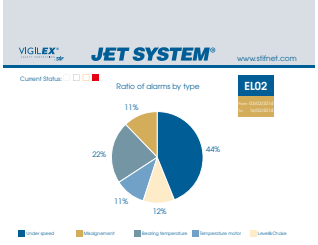
Run time



Temperatures



Number of alarms



Ratio of alarms by type

HISTORIC DATA ANALYSIS:

Only by computer, directly with laptop or by Network LAN

- History of defects: **JET SYSTEM can save 10 000 events**.
- History of setting modification: Save the **10 000 last setting modifications**.
- History of daily running time of the equipment:
  - **JET SYSTEM** saves production time during the last 4 000 days of use.
  - **JET SYSTEM** records temperatures 24 times per day during the last 365 days of use.
- All the history can be download in csv format.

The hazard monitoring devices are able to monitor bucket elevators, belt conveyors, chain conveyors and screw conveyors.

Our hazard monitoring system analyses the data sent by the sensors installed on equipment and save the eventual defects events. According to the setting, the **M-JET+** or the **M-JET** sends alarms and commands the stopping of the conveyor.

M-JET+ or M-JET monitors the following:

- Under speed due to belt slip on the pulley. To check comparing with the nominal speed.
- Bearing temperature using sensor **PT100** or **NTC**.
- Belt misalignment using sensors with or without contact.
- Material jam in conveyor entry or exit using capacitive sensor.
- Chain elongation measured by inductive sensor and targets.
- Motor power measurement with specific electrical consumption.
- Shaft position measured by sensor 4-20mA.

The operating control of the system is realized by output relays:

- Directly on the power relay of the motor.
- By the global PLC of the facilities.

Verifying the conveyor operation can be achieved by:

- On computer screen by internal website (directly with laptop or by Network LAN).
- By message on the email box (events and maintenance operation plan).

Hazard monitoring device with display: M-JET+®

DESIGN FEATURES:

- Strong casing.
- Dustproof and waterproof casing.
- **Dashboard with LED indicator.**
- Work stand by the conveyor.
- **Running status indicator near the conveyor (and sound alarm).**

SENSORS SUPERVISED BY THE **M-JET+**:

- 2 belt speed sensors.
- 5 bearing temperature sensors.
- 3 analogic sensors.
- 2 chain elongation sensors.
- 4 belt alignment sensors.
- 2 follower shaft position sensors.
- 2 choke and level sensors.

ELECTRICAL SUPPLY:

- **24 V DC 350 mA.**
- Option: **110-230V AC 150 mA.**

STANDARDS

EN 61326 -1 CEM Electromagnetic compatibility.

EN 61010 -1 Safety electric device.

Stainless steel box for ATEX zone European regulation *2014/34UE.*

Hazard monitoring device without display: M-JET®

DESIGN FEATURES:

- Strong casing.
- Dustproof and waterproof casing.
- Remote management use.

SENSORS SUPERVISED BY THE M-JET:

- 2 belt speed sensors.
- 3 analogic sensors
- 4 belt alignment sensors.
- 2 choke and level sensors.
- 2 follower shaft position sensors.
- 5 bearing temperature sensors.
- 2 chain elongation sensors.

ELECTRICAL SUPPLY:

- **24 V DC 350 mA.**
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STANDARDS

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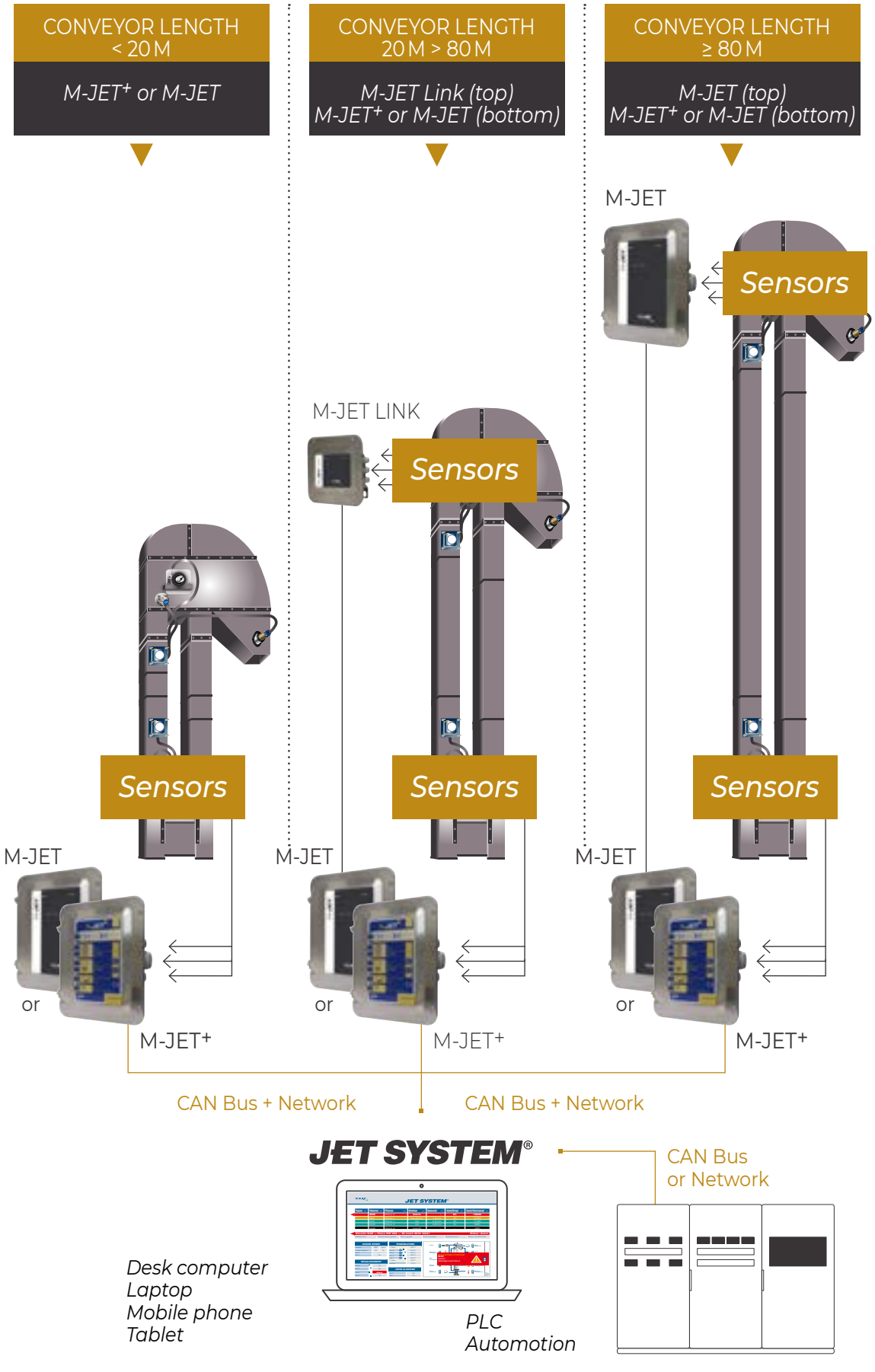
Stainless steel box for ATEX zone European regulation *2014/34UE.*

M-JETLINK®

- Help to connect sensors on Master **M-JET+** or **M-JET** for only one conveyor, by extension wire (multicables).
- Connection box to add for conveyor length between 20 meters and 80 meters

CONNECTION DEVICES CONFIGURATION



Selection **guide**:

Connection box

M-JET LINK
Connection box

Hazard monitoring

M-JET

M-JET+

M-JET *or* **M-JET+**

Hazard monitoring without display

Hazard monitoring with display

Security devices

VIGIRO IP26®

Rotation speed sensor: ATEX (II2D) IP65 T 80°C

DETECTION

INTEGRATED INDUCTIVE DETECTOR

- Vmax: 500 rpm

QUICK FITTING TO SHAFT

- M12 mounting bolt
- Anti-rotation flexible strap

STANDARDS

Eligible for the standard 2014/34/UE

EN/IEC 60079-0 *EN/IEC 60079-31*

EN 60947-5-2 + A1 *IP6X-IEC 60529*

The **VIGIRO IP 26** devices can be connected directly to a central control area or to the hazard monitor **M-JET+**

	CAPOT	Voltage	No Atex	Atex 21
VIGIRO IP26	**Metal**	10-36 V DC		55 CRMI 71254 TE
		20-264 V AC/DC	55 CRMI 91253 TE	
	Plastic	10-36 V DC	55 CRCI 91250 T	
		20-264 V AC/DC	55 CRCI 91253 T	

Cable: 2 m

GIRO L®

Motion controller steel support without inductive switch sensor: ATEX (II2D) IP65 T 80°C

STANDARDS

EN ISO 80079-37

		Atex 21
GIRO L	**Diameter 18**	55 CRLS 712910
	Diameter 30	55 CRLS 712920

*Different cable lenght available according to the models

VIGIRO SV 26®

Not usable with M-JET+ Hazard monitor

Rotation speed sensor: ATEX (II2D) IP65 T 80°C

DETECTION

INTEGRATED INDUCTIVE DETECTOR

- 6 to 6000 pulses/min
- Vmax: 500 rpm
- Preset under speed setting -33/-20/-11/-6 %

QUICK FITTING TO SHAFT

- M12 mounting bolt
- Anti-rotation flexible strap

STANDARDS

Eligible for the standard 2014/34/UE

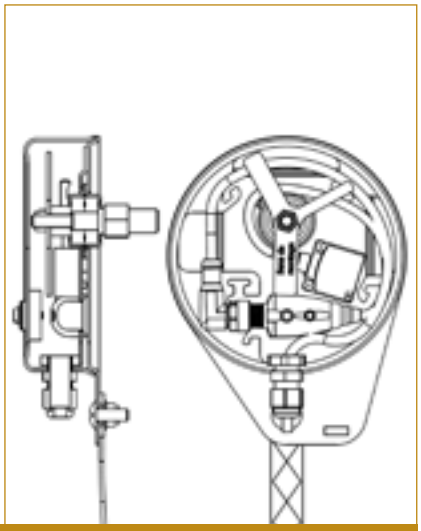
EN/IEC 60079-0 *EN/IEC 60079-31*

IP6X-IEC 60529

Autonomous operation, external monitor not required; intuitive and easy set up.

VIGIRO SV26	Voltage	No Atex	Atex 21
	10 - 36 V DC		55 CRMV 71203 TE
	20 - 264 V AC/DC	55 CRMV 91205 TE	

Cable: 2 m



EAZYFIX

M12 (55 CRAI 44012) Magnet adapter (to avoid tapping)

VIGIBELT TOUCH®

Belt alignment detector: ATEX (II 2 D) IP67 T80°C

DETECTION

Integrated inductive detector

Activated by physical belt contact with the sensor

INSTALLATION

- Installed outside the elevator leg per PAIR (Supplied with gasket and bolts)
- Casing opening of ø55 mm on the rising leg
- Bolt center to center: 51x51 mm
- Bolt ø: M6
- Output: NC

STANDARDS

ATEX 21/20

Eligible for the standard *2014/34/UE*

EN/IEC 60079-0

EN/IEC 60079-31

IP6X-IEC 60529

The VIGIBELT TOUCH devices can be connected directly to a central control area or to the hazard monitor M-JET+

VIGIBELT TOUCH	Voltage	No Atex	Atex 21
	10 - 36 V DC		55 KVT 76012 TE
	12 - 250 V AC/DC	55 KVT 95042 ME	
			Cable: 2 m

VIGIBELT CDM80 C®

Belt alignment detector: ATEX (II 2 D) IP67 T80°C

DETECTION

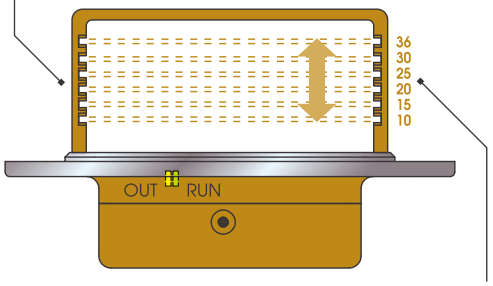
- Detection distance of:
  15 / 20 / 25 / 30 / 36 mm
- On request, detection distance
  can be preset at factory

INSTALLATION

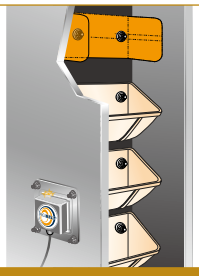
- Installed outside the elevator leg
  per PAIR (Supplied with gasket and bolts)
- square opening of 110 mm
  on the rising leg

Configuration:

Calibration element
(Remove before operation)



Detection distance of
10/15/20/25/30/36 mm



Activated without belt contact, by inductive detector and metal bucket or target

EAZY DETECT

Steel target installed in place of a plastic elevator bucket

STANDARDS

Eligible for the standard *2014/34/UE*
EN/IEC 60079-0 / EN/IEC 60079-31
IP6X-IEC 60529

The VIGIBELT CDM 80 C devices can be connected directly to a central control area or to the hazard monitor M-JET+

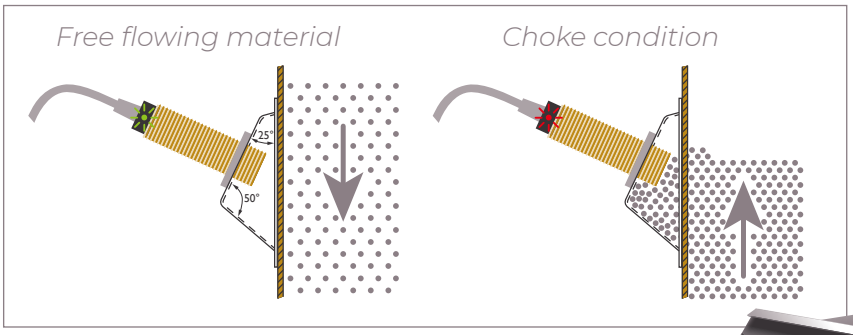
VIGIBELT CDM80C	Voltage	No Atex	Atex 21
	10 - 36 V DC	55 KDM 98012 TE	55 KDM 78012 TE
	20 - 264 V AC/DC	55 KDM 98032 TE	
			Cable: 2 m

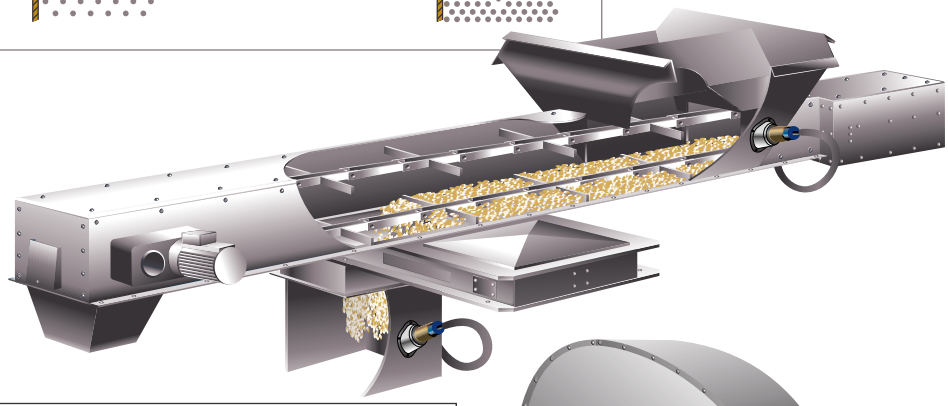
VIGIMAT DNC 30®

Level & choke detector: ATEX IP67 T 101°C

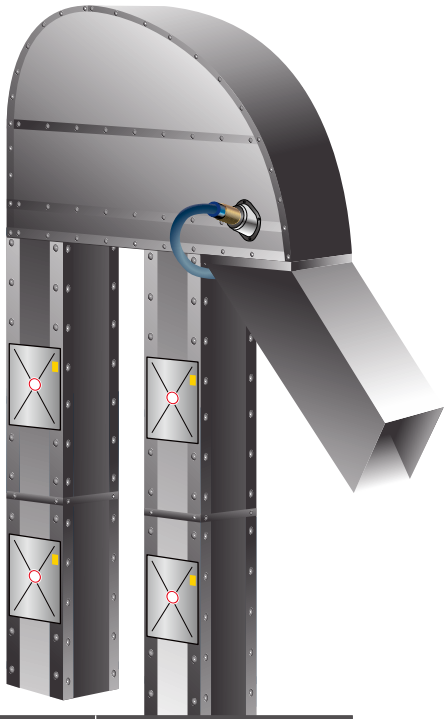
APPLICATION

- Level indicator
- Jam capacitive detector





Mounting support:



The VIGIMAT DNC 30 devices can be connected directly to a central control area or to the hazard monitor M-JET+

DNC 30	Voltage	Non Atex	Atex 22	Atex 21
	10 - 36 V DC	55 DNC 9301 ATS	55 DNC 8300 CIS	55 DNC 7300 RSS
	24 - 240 V AC	55 DNC 9302 ATS		
	20 - 250 V AC/DC		55 DNC 8300 DIS	

Câble 2m - 22: Cable gland - 21: 10 m

VIGI*THERM* *GST 100®* LG & *GST 100®* HX

Bearing temperature sensor: ATEX

GST 100 LG

BEARING TEMPERATURE SENSOR PT 100 CLASS B

- Rated for ATEX Zone 21, Dust
- Requires connection through an intrinsic safety barrier for use in ATEX zones
- PT100 sensors require connection to an appropriate signal conditioning device
- ¼ inch grease fitting adapter
- Teflon coated and braided cable, 10 M
- Operating temperature: +250°C

GST 100 HX

BEARING TEMPERATURE SENSOR PT 100 (CLASS B)

- Rated for ATEX Zone 20, continuous dust
- PT100 sensors require connection to an appropriate signal conditioning device
- Lug style terminal for attaching to 1/8 or ¼ inch grease fitting
- Teflon coated and braided cable, 3 M
- Operating temperature: 100°C ATEX / 180°C no Atex

STANDARDS GST100®LG

Approval type *INERIS 03 ATEX 0096 X*
Assembly certified
ATEX II 2 GD Ex iaD 21 IP6X T6,T5 or T4

STANDARDS GST100®HX

Approval type *LCIE 03 ATEX 6088 X*
Assembly certified *ATEX II1D ta IIIC Da*

The **VIGITHERM GST 100 LG** and **VIGITHERM GST 100 HX** devices can be connected directly to a central control area or to the hazard monitor **M-JET+**

	Atex 21	Atex 20
GST 100 LG	55 GST 7100 P	
GST 100 HX		55 GST 7100 J
		Câble: 10 m

VIGILEX®

SAFETY PROTECTION By STIF

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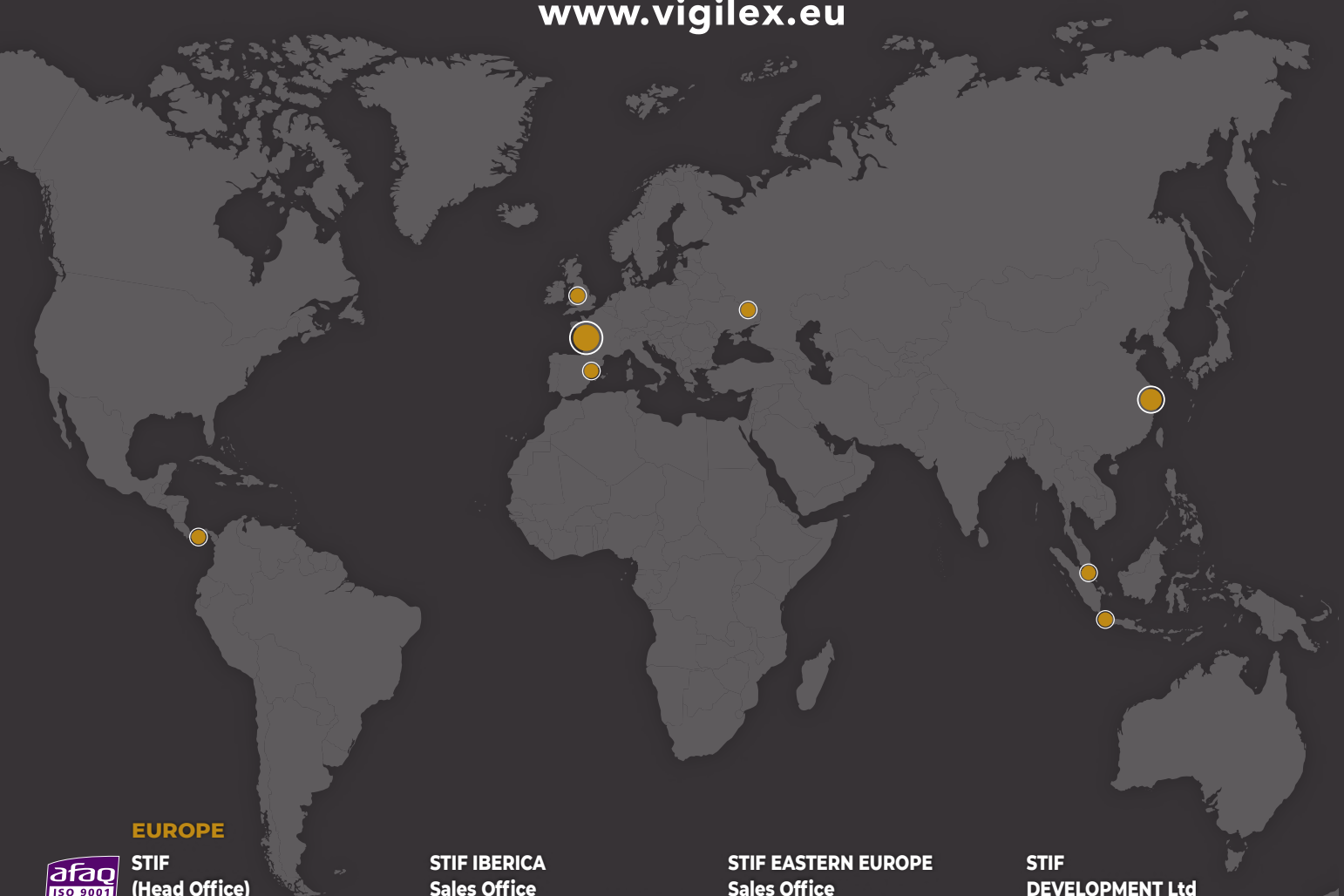

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