

USE

- The VIGIBELT® TOUCH is a lateral displacement detector that prevents the offset of elevator straps or conveyor belts, and or incidentally the elevator pulley offset. It reacts to the pressure of the strap or strip, which comes into contact with the front face of the detector. The detectors are normally installed face to face in pairs preferably on the rising leg near the pulleys for the lifts, and on the stretched strand side near the drums for the conveyors.

The detectors can be directly connected to a programmable logic controller, or for total safety to an independent central unit "monitoring M-JET". The electrical circuit can thus control an alarm or a machine stop.

For elevators taller than 20 meters, we advise to equip the head with a second kit VIGIBELT® always on the rising sheath side.

The sensors are triggered when the strap exerts a load of about 5 daN.

description

- The VIGIBELT® TOUCH kit is composed of two detectors, four elastomeric wedges of 3mm (NBR), and the fixing screws (M6).









Composition:

2x VIGIBELT® Touch



4x elastomeric wedges (ep.3) 8x Fastening Bolts(M6)



		8x
		8x
		8x
		8x

PRECAUTIONS



The VIGIBELT® TOUCH kit must be installed, connected and put into service only by competent personnel. The personnel need to have electrical accreditation, a knowledge of the regulation and the disposition concerning the installation of those device, especially for Ex II3D version integrated in ATEX zones.

- Carry out beforehand an electrical connection study to install the VIGIBELT® TOUCH (standardized electrical diagram, power supply and electrical protection, plc control, ATEX zones).
- Check that the temperature range of use of the VIGIBELT® TOUCH (variable according to version) corresponding at application.
- Check during the first commissioning of the bucket elevator in the handling phase, that there is no sealing defect (dust leak) between the sheath of the elevator and the VIGIBELT® TOUCH.
- Shut down the bucket elevator or belt conveyor to a standstill (off) before any installation or intervention on the VIGIBELT® TOUCH (intervention information to be indicated on the machine).

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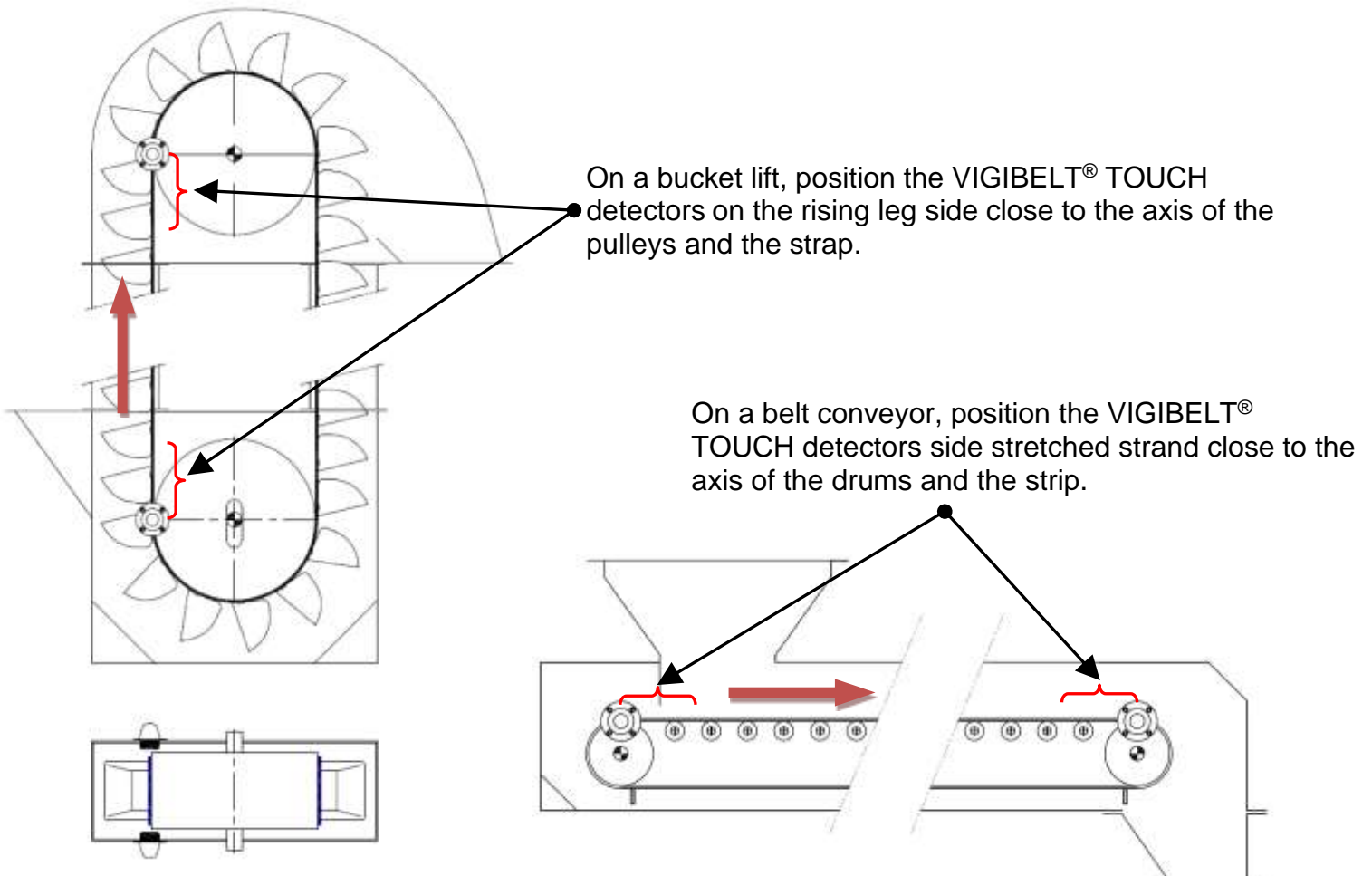
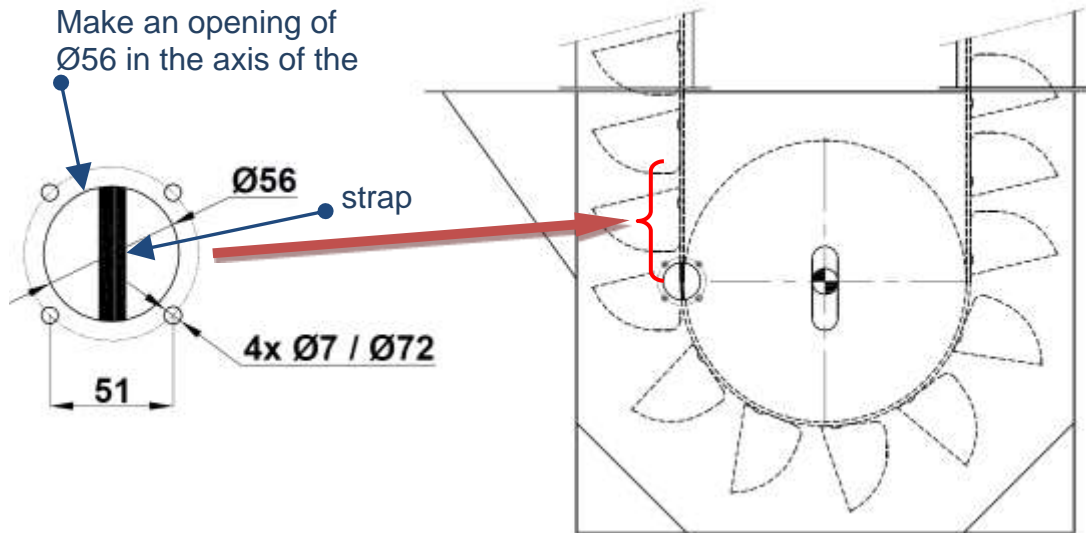
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installation

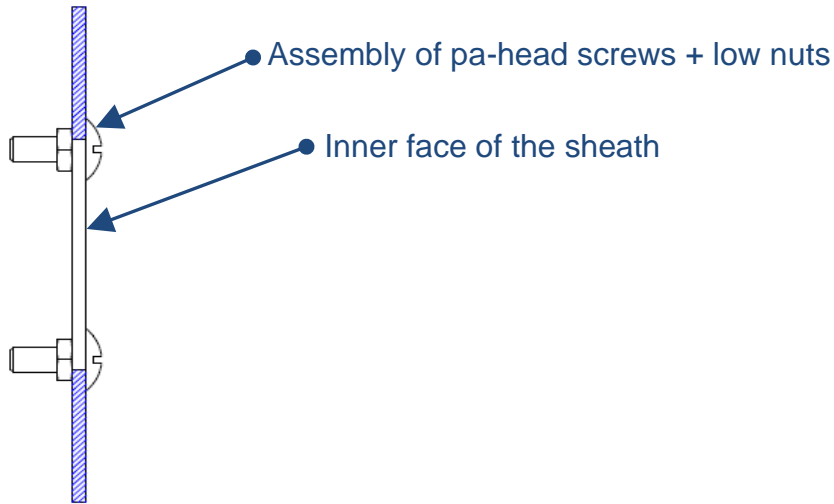
- 1) Make two symmetrical round openings (opening $\varnothing 56\text{mm}$ + 4 holes $\varnothing 7$ on $\varnothing 72$) on each side on the riser of the elevator: **figure-A**

Figure A



2) Assemble the M6 pan screws with the low nuts on the sheath (clamping torque 6 N.m): **figure-B.**

Figure B



3) Adjust the trigger distance of the VIGIBELT® TOUCH detectors. This distance corresponds to the dimension between the inner wall of the elevator and the contact face of the detector.

For this, you have the possibility to make three **figure-C** detection settings:

No. 1 - Detector without additional wedge, thickness elevator (example 3mm), i.e. a distance of **20mm**

No. 2 - Detector with an additional wedge, thickness elevator (example 3mm), i.e. a distance of **17mm**

No. 3 - Detector with two additional wedges, thickness elevator (example 3mm), i.e. a distance of **14mm**

Figure C

Setting N°1

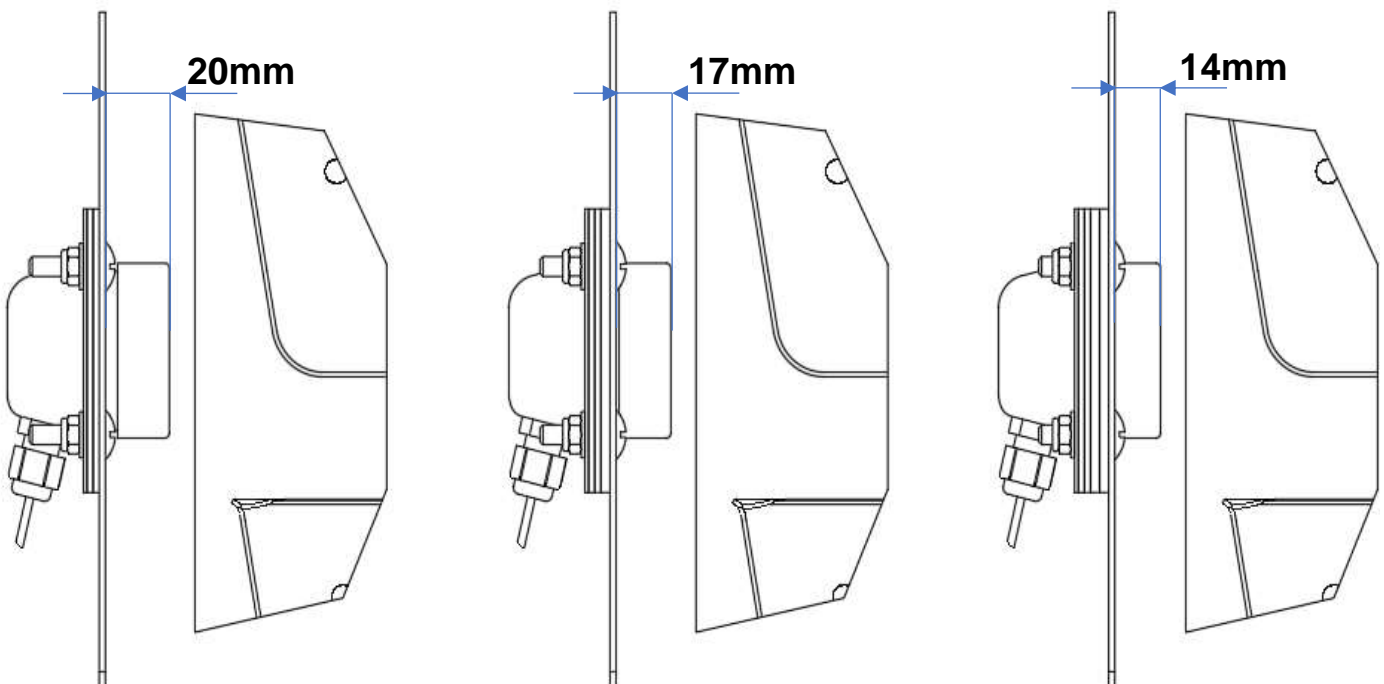
Distance of 20mm,
No additional hold

Setting N°2

Distance of 17mm,
With an additional wedge

Setting N°3

Distance of 14mm,
With two additional wedges



- 4) Position the VIGIBELT® TOUCH detectors on the openings and screw the M6 brake nuts with the washers (clamping torque 4 N.m) according to **Figure-D**.

figure D

Attach the VIGIBELT® Touch with washers and lock nuts



- 5) Connect the VIGIBELT® TOUCH according to the electrical scheme E or F:

NC detector = positive safety, permanent control of the proper functioning of the sensor

Signal loss indicates that there is a | ⇒ strap offset problem
 ⇒ Electrical wire cut off

3-wire/NC connection scheme E	
<p>colours BN = Brown BU = Blue BK = Black</p>	
<p>PVC cable 3x0.11mm² 2m for ATEX zone and non-ATEX</p>	

For low voltage sensor, ATEX or not

- 3-wire cable connection
- L=2m cable
- Voltage 12-24V DC
- Voltage limits, including ripple, 10-36V DC
- Switching power ≤ 100 mA
- temperature Operating: -25... 70°C (Non-ATEX)
 -20... 60°C (ATEX)
- Protection - IP67



Caution: Any connection must be made outside the ATEX zone

3-wire connection scheme F	
<p>Colours 1 = Black 2 = Grey 4 = Blue</p>	
<p>PVC cable 2m for non ATEX 3x0.25mm²</p>	

For mechanical sensor, out of ATEX zone

- 3-wire cable connection
- L=2m cable
- Tension 12... 250V AC/DC
- NC : Black wire (1) / Grey wire (2)
- NO : Black wire (1) / Blue wire (4)
- Operating temperature: -20... 80°C
- Protection - IP67



Caution: Any connection must be made outside the ATEX zone


- 6) After completing the mechanical and electrical installation of the VIGIBELT® TOUCH, you must proceed to the verification of each detector to ensure that they are all operational. For this, you need to trigger each VIGIBELT® TOUCH by pressing their contact face. This simulation makes it possible to validate that the fault information is communicated to the control system (M-JET monitoring, control plc, ...).

CONTROL & PERIODIC MAINTENANCE

- 1) To ensure the functional integrity of VIGIBELT® TOUCH, you must schedule periodic inspections. The frequency of inspections must be sufficient to avoid dangerous situations (situations that affect the intrinsic functioning of the VIGIBELT® TOUCH).
- 2) During these inspections, check that the VIGIBELT® TOUCH are not affected by the following defects: dust layer >2mm, dust leak between the sheath of the elevator and the VIGIBELT® TOUCH, non-operational power supply voltage, degraded electrical wiring, shocks on the envelope of the VIGIBELT® TOUCH, triggering of the detector with a charge > 5 daN, etc...
- 3) In the case of one or more defects found, you must proceed with the restoration in order to correct the defect(s) before you can use the bucket lift or belt conveyor again.
- 4) Only personnel trained and authorized in maintenance procedures for these equipment are able to carry out inspections for VIGIBELT® TOUCH.

DISPOSAL

When dismantling the VIGIBELT® TOUCH, the user must ensure the proper disposal of this device and hand over to the specialized harvesting centers the components according to their nature (stainless steel, electrical equipment, seal, etc.).

-  In the event that the VIGIBELT® TOUCH kit is used, controlled, under conditions contrary to the precautions described in this instruction manual, STIF declines all responsibility for damage caused to man, animal, environment, material property.