



SPEED SENSOR	2
INDUCTIVE DETECTORS	9

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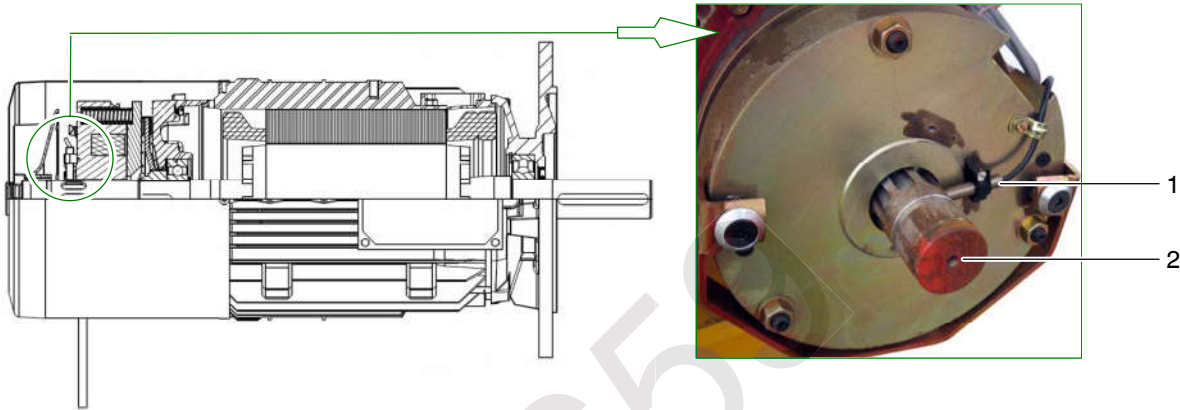
SPEED SENSOR

Purpose

The speed sensor measures the rotation speed of the hoisting winch drum.

Working principle

An inductive sensor (1) fixed on the hoist motor housing delivers the rotation speed of the motor shaft (2) to the frequency converter.



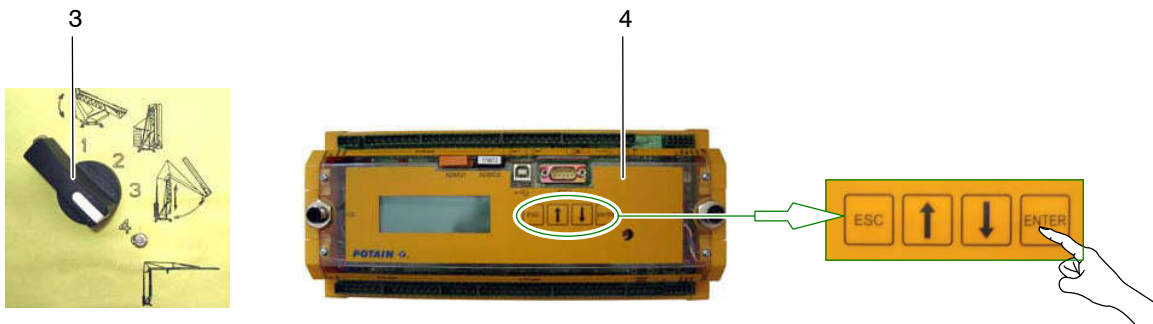
Checking procedure of the speed control functions

This procedure simulates the absence of the information feedback coming from the inductive hoisting sensor (sensor incorrectly adjusted, cable cut ...). It must only be carried out within the preventive maintenance operations.

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During the checking procedure of the speed control functions, check whether the switch (3) is on the position "Work with horizontal jib". Then validate this configuration on the receiver (4).

The checking procedure is carried out **WITHOUT LOAD**.



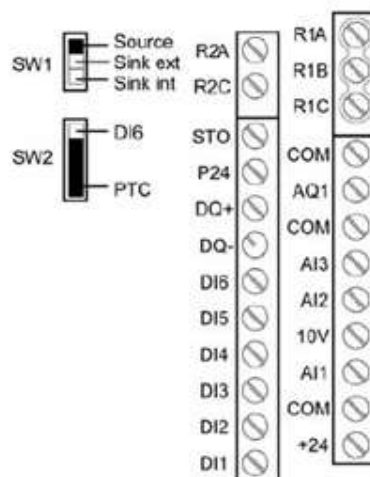
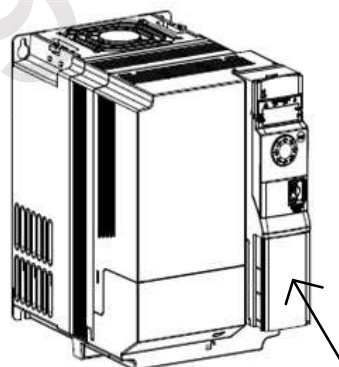


- Switch off the crane.



Before each operation, it is compulsory to observe the waiting time indicated on the sticker which is present on each frequency converter.

- Open the hoisting frequency converter U400X in order to have access to the terminal strips.



- Disconnect the wire of the DI5 terminal from the control terminal strip.



- Make the crane alive.



- Operate a hoisting movement at the third notch; the frequency converter must stop it in less than 5 seconds and display the error SPF.

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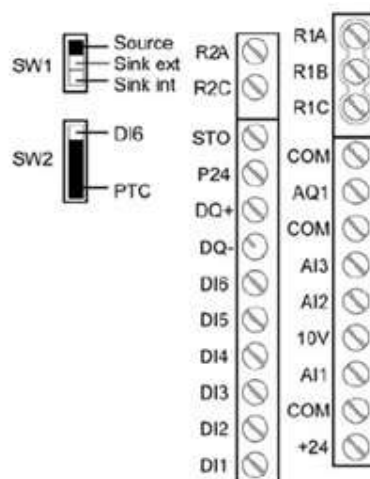
If the frequency converter does not stop the movement and does not go to faulty function, check the working order of the K400A and K4000M contactors.



WIRING DIAGRAMS / Hoisting winch

- Switch off the crane.





- Connect the DI5 terminal wire of the control terminal.

- Close the frequency converter U400X of the hoisting winch.

- Make the crane alive, if necessary.



Adjustment procedure of the speed sensor

Adjust the speed sensor only if the fault “**SPF**” is displayed on the U400X hoisting converter.

- Remove the cover (1).

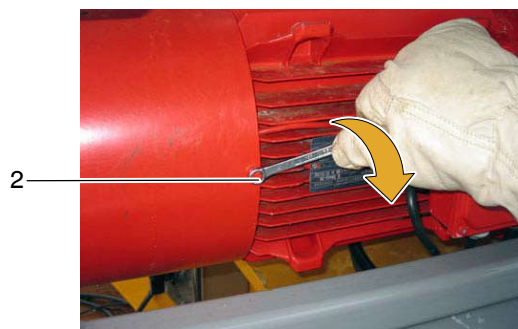
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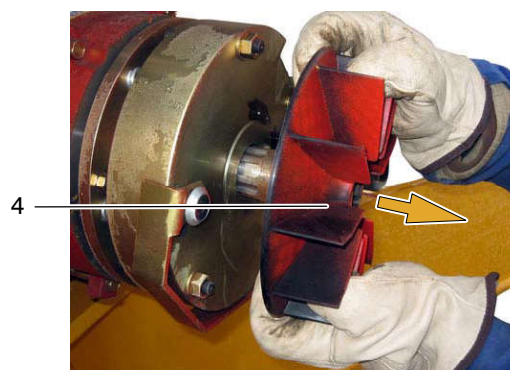
- Unscrew the screws (2).



- Remove the cover (3).



- Remove the fan (4).

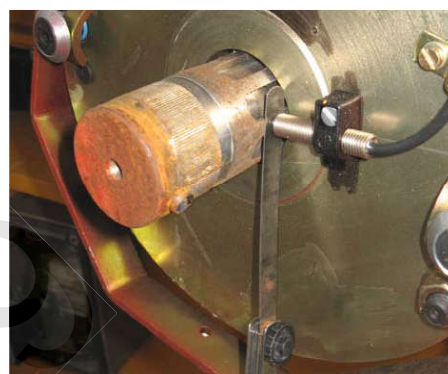


- Unscrew the screw (5) locking the inductive sensor (6).





- Screw in or unscrew the inductive sensor (6) in order to obtain an adjusting dimension of $0,5 \text{ mm} \pm 0,1 \text{ mm}$ (check by means of an adjusting wedge).



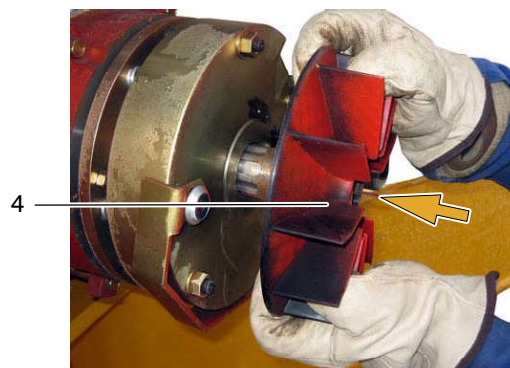
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The adjusting dimension must be taken between the sensor and the top of a groove.

- Screw in the screw (5) locking the inductive sensor (6).



- Refit the fan (4).

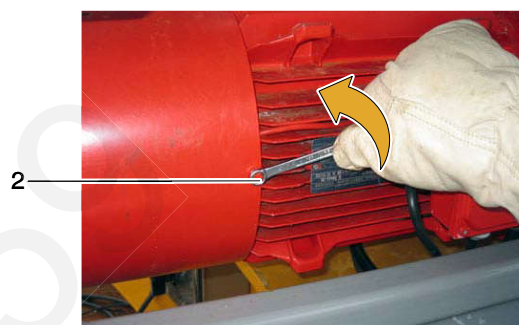




- Refit the cover (3).



- Screw in again the screws (2).



- Refit the cover (1).

