Check the Balluff sensor cable

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Check the transducer cable on the affected blade. Make sure the connector is not loose. Check to see if the pins are pushed in or corroded. If you suspect and open, check the cables for continuity.

Cable W923 Part number 60101018

Cable W924 Part number 60101148

Cable W925 Part number 60101149

Check the blade position sensor

Does this solve the problem?

1] Yes

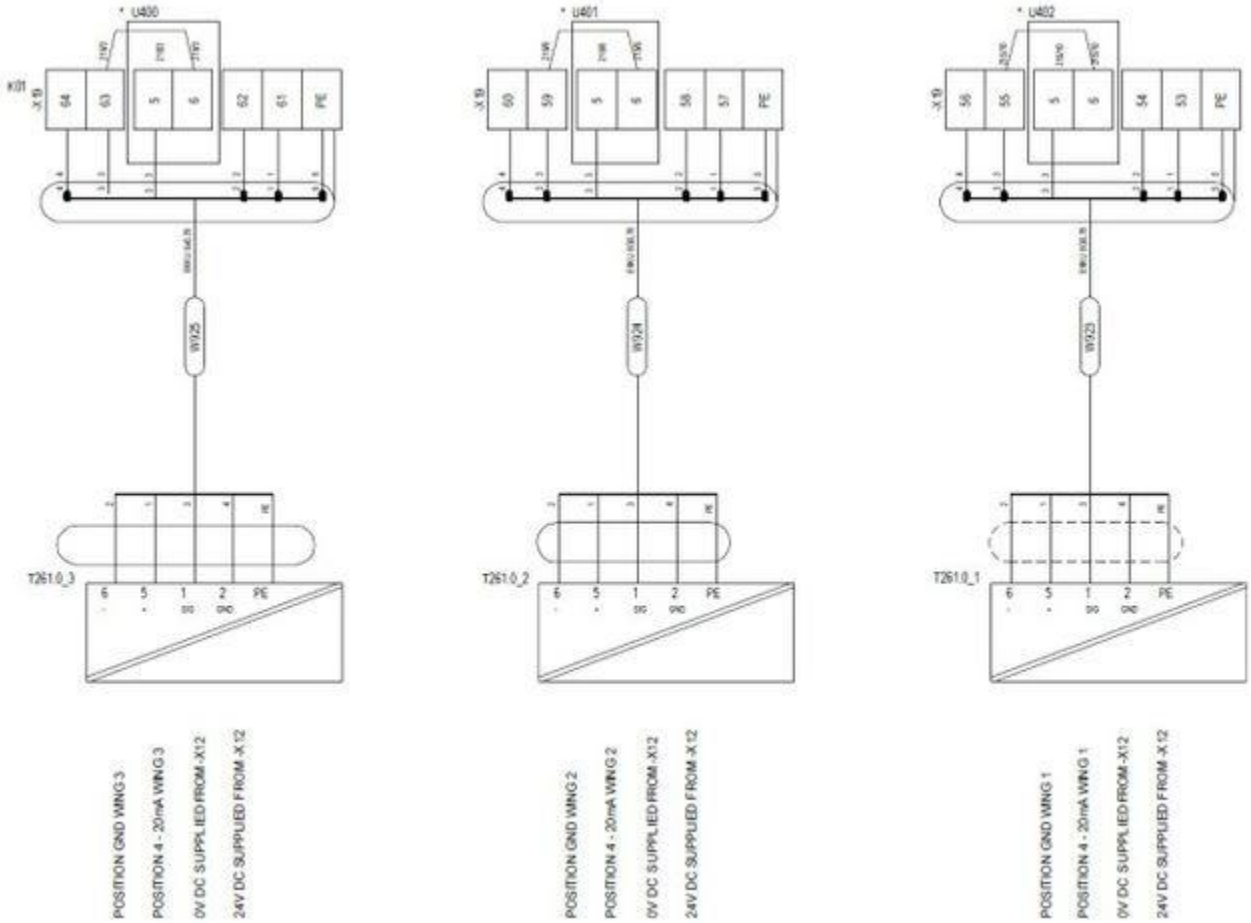
2] No

3] I don't know

- **Explanation**

The blade position sensor could be the cause of alarm 451 if it stops reporting the position correctly. Verify the sensor can measure the blade position accurately and consistently.

You can try to recalibrate the sensor by following the procedure outlined in section 5.10.9 of the commissioning WKI.



Commissioning WKI Doc. number: 0000-9925

Balluff service module BTL5-E10 Part number: 60102394

TRANSDUCER BTL5-E10-M0950-A-S Part number: 60098816

Replace the hub computer

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

If the blades are pitching as they should and the position transducers are reporting accurate position, then the hub computer could be malfunctioning.

You can verify the hub computer is bad by swapping the inputs and outputs of the malfunctioning blade and a working one. If the error reports to the same blade (even though all the signals are now coming to and from a new blade), then you know the malfunction lies in the hub computer.

The AK4 PWI shows all connections and components with part numbers. Use it as a guide.

Hub computer EVOII Part number: 51701801

AK4 PWI Doc.number: 0001-1765

AK4 Panel wiring diagram Doc.number: 6015908

Check the hub communication circuit for bad connections

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Test for continuity from the AN1 to the AK4 to see if the whole communication circuit is good.

If you find an open, test for continuity from the AN1 to the slip ring terminals and then from the slip ring terminals to the AK4:K01.

If the first part of the circuit fails the test, the problem could be in the W360-4, the brushes, or the 360-4 plug.

If the second part of the circuit fails the test, check the AK4:X05 Amphenol plug and the terminal on the K01.

Amphenol Plug Service Kit Part number: 60025069

Cable W360 W Plug Part number: 60096029

20A brush holder ass. Part number: 60069223

Check the power net

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Check the power net for correct input and output voltage, 240VAC and 24VDC respectively.

The G400 supplies the proportional valves and the G401 supplies power to the position transducers.

Also, make sure the wires have solid connection on both ends. Pull test the wires and inspect them closer as needed.

PS ADC 5483R-3 10A-27,4 NM PIN Part number: 188453

Check cables running through the gearbox

Does this solve the problem?

1] Yes

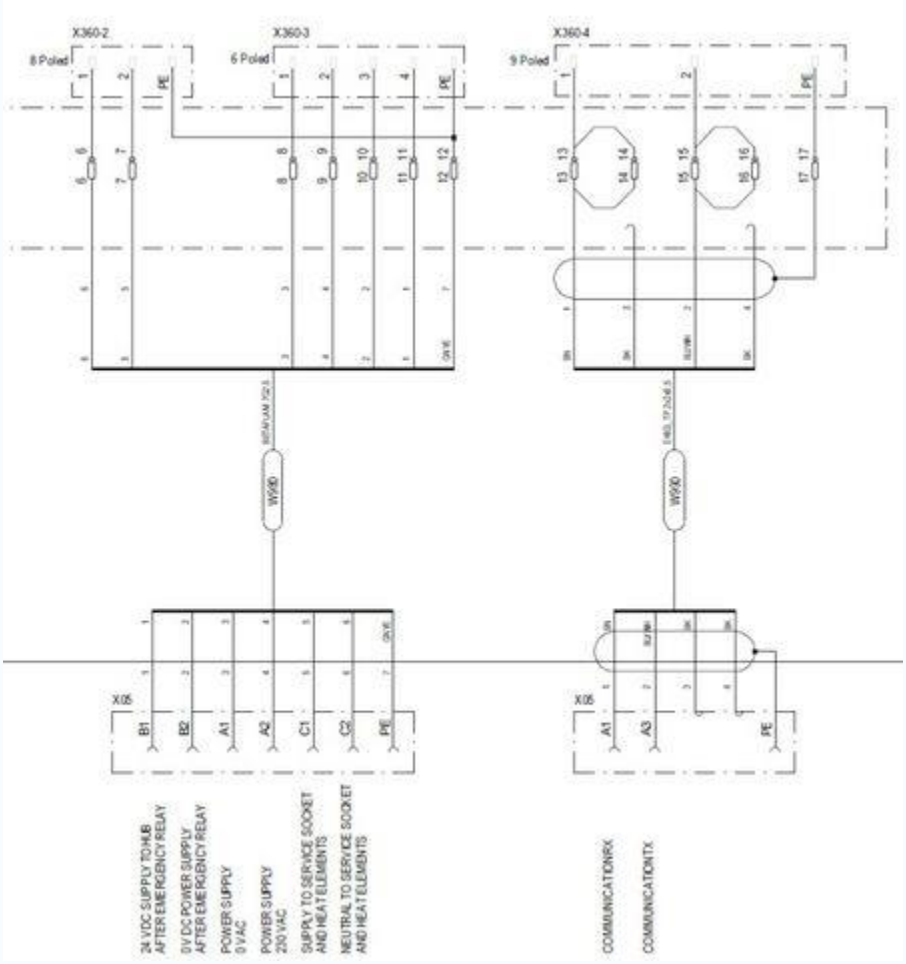
2] No

3] I don't know

- **Explanation**

Check the cables that run through the gearbox for damage. Replace if you find one defective.

Test for continuity from the slip ring terminals to the hub cabinet to verify the cables are in working order.



CABLE W990 COM CABLE Part number: 60021559

CABLE W980 IEC Supply Part number: 60021557

Check the accumulator pre-charge on the erring blade

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

If the error occurred during an emergency stop, an accumulator may have failed or be low on nitrogen. Check the nitrogen pressure on the accumulators with a manometer.

If the nitrogen pressure is less than 50 bar, the accumulator has failed. If the nitrogen is less than 115 bar, it needs to be recharged.

Check all three accumulators in the affected blade and replace or repair any found to be defective.

Use upgrade doc 0000-9402 as a guide for replacing the accumulators.

Recharge of nitrogen accumulator WKI: 941918

Accumulator 24.5 L Part number: 60113097

ACCU. BLADDER KIT 24.5L Part number: 60113640

Check blade bearing for damage

Does this solve the problem?

1] Yes

2] No

3] I don't know

- **Explanation**

Inspect the blade bearings for uneven rolling. Pitch the affected blade back and forth while listening and watching the bearing.

Complete a CIR for any damaged bearings found.

Blade pitch system test Doc. number: 0002-0467