# Pulse Head and Fly Angle Sensor Troubleshooting

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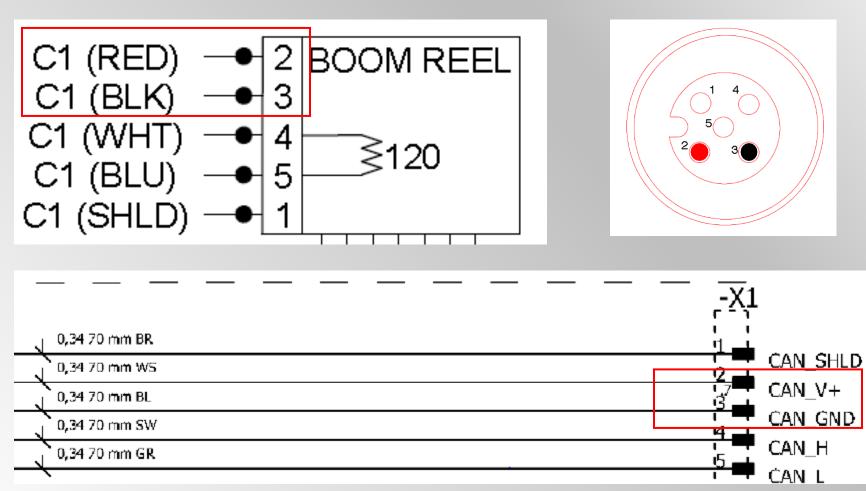
> P.O. Box 6506 Columbus, GA 31917-6506

### German wire color translator

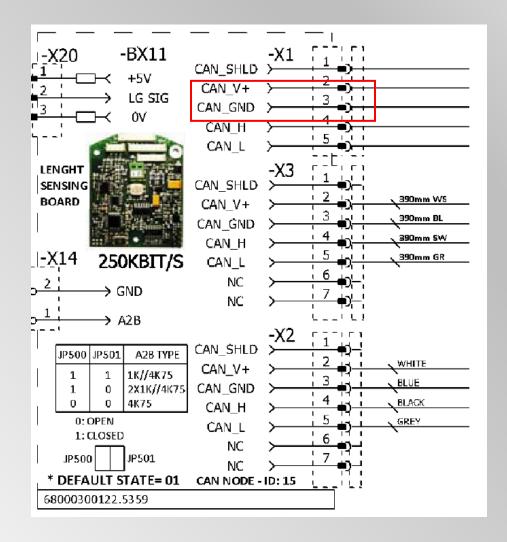
# **WIRE COLORS**

English	DIN (Ger	mai
Black .	Sv	v
Blue	Bl	
Brown	Br	
Green .	Gı	1
Gray	GI	
Orange		
Pink		
Purple	Vi	
Red		
Turquoi	e	
White .	W	S
Yellow	G	9

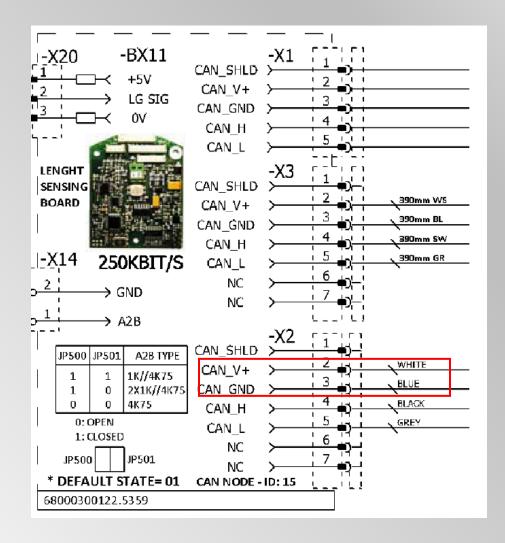
Boom reel is supplied 12 volts dc via the CANBUS C1 to pins 2 (+12v) and 3 (Ground).



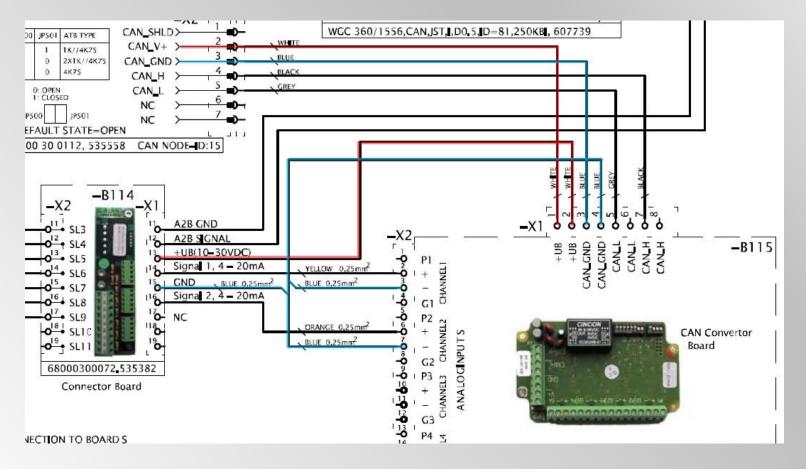
12 volt power and ground is carried to the main circuit board and Connects on pins 2 (+12v) and 3 (GRD)on the –X1 connector



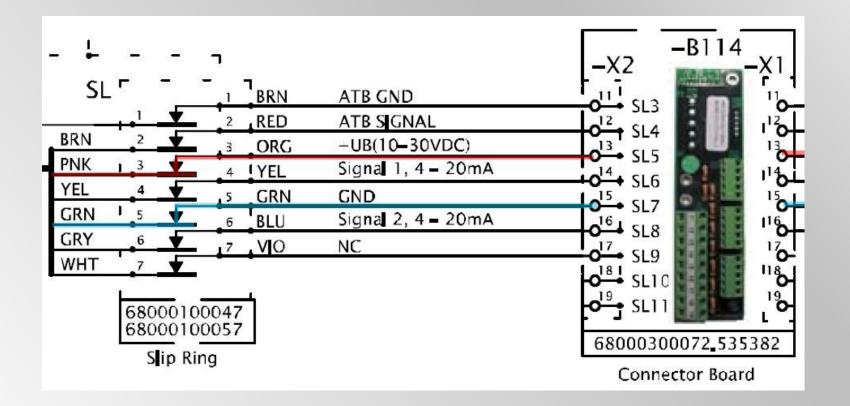
12 volt power and ground is carried to the CAN Convertor board via pins 2 (+12v) and 3 (GRD) on the –X2 connector



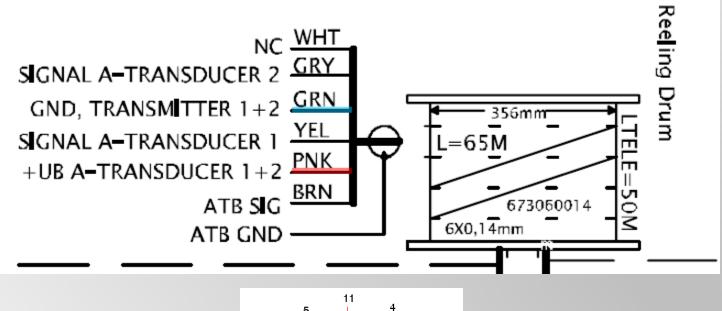
12 volt power and ground is carried to the CAN Convertor board via pins 2 (+12v) and 3 (GRD) on the –X2 connector. Then the power and ground is sent to the Connector Board on pins 13 (+12v) and 15 (GRD) to feed power And ground to the angle sensors.

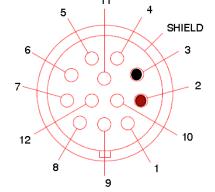


12 volt power and ground is carried to the Slip Ring via pins 13 (+12v) and 15 (GRD) on the –X2 connector.

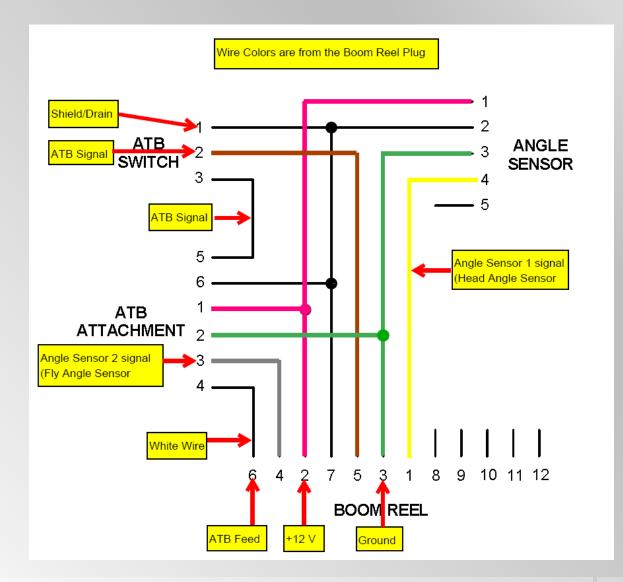


12 volt power and ground is carried to the Junction Box through the M23 Connector pin 2 (+12v) and pin 3 (GRD) on the ATB cable

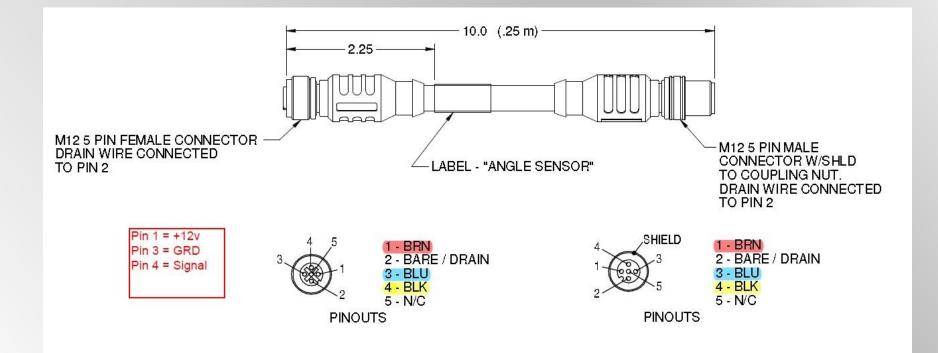




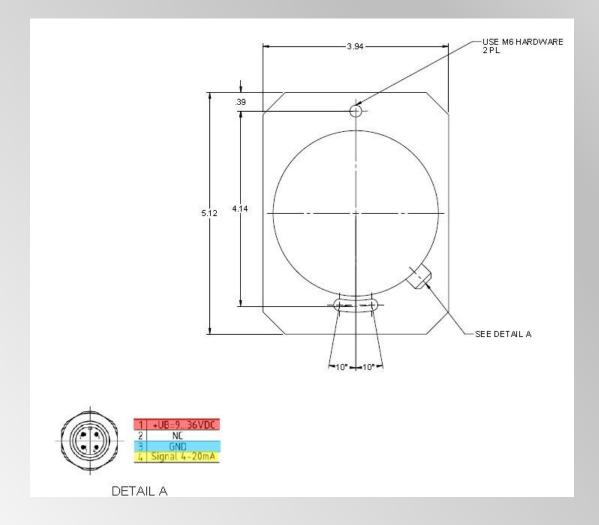
#### **Junction Box Pinouts**



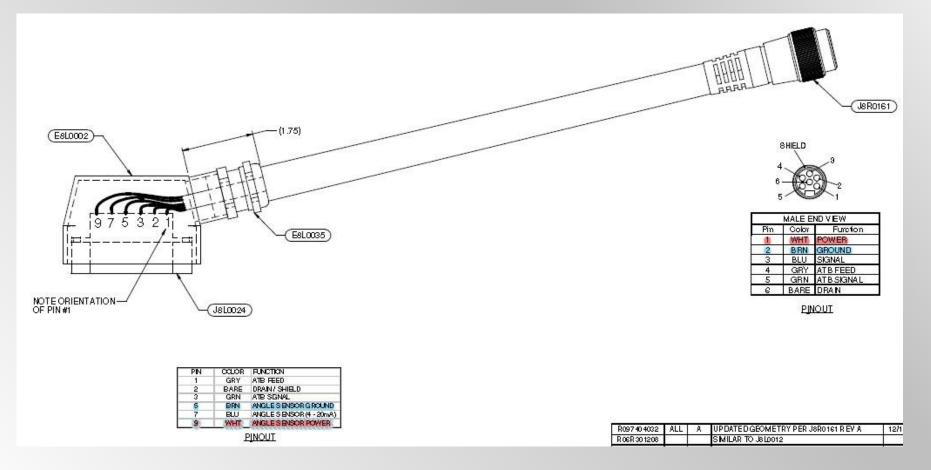
## Head Angle Sensor Power, Ground and Signal



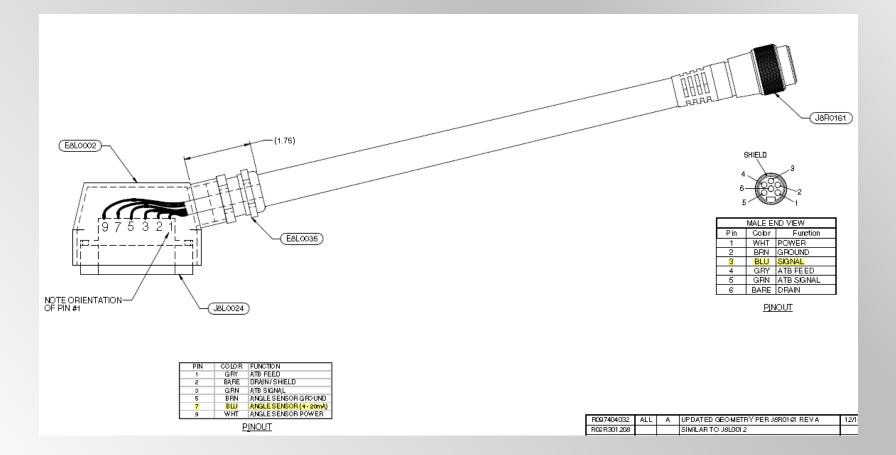
### Head Angle Sensor



## ATB Attachment Cable Power and Ground



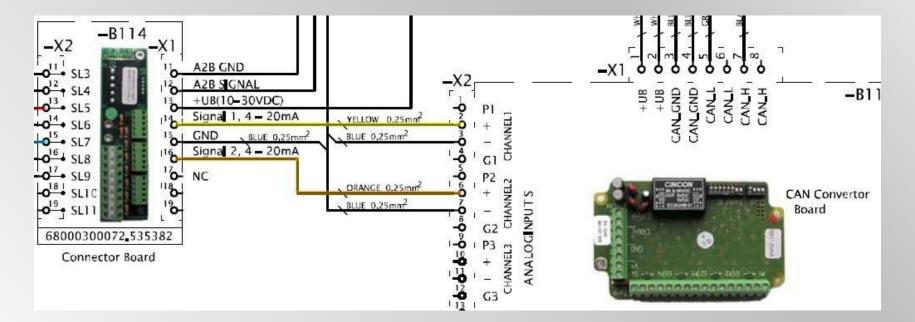
## ATB Attachment Cable Fly Angle Sensor Signal



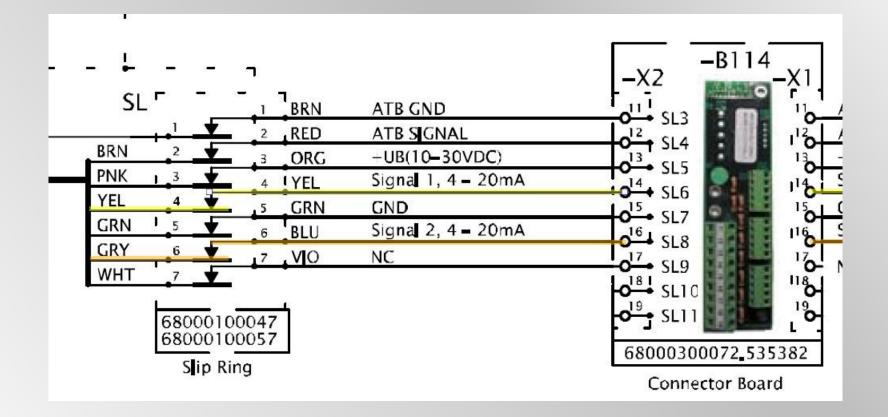
Make sure when you are measuring current that you meter is properly connected and the correct range is selected.



Once you have verified you have power to the Head Angle or Fly Angle Sensor(s) then you can measure the output of these sensors. The output voltage is 4 - 20 ma. These angle sensors are not CANBUS they are analog due to the length of the ATB cable. Since the connectors are sealed it will be easier to measure the current at the boom reel where the sensors are connected to the CANBUS Convertor board.



If you cannot get a valid measurement from the CANBUS Convertor board check the current at the Slip Ring to ensure the current is being fed through.



If you cannot get a current reading at the CANBUS board or the Slip Ring you will have to get creative an make some jumper wires to insert into the cables or sockets to be able to take the current measurements.

For the Head Angle sensor it would be worth while to order a cable (S2R0217) and carefully cut open the center to expose the wiring so it could be used as a breakout cable.

For the Fly Angle sensor you can get to the wiring by going through the connecting plug and removing the insert to take the current measurement.

Boom Reel Schematic (General reference) Refer to your machine Service Manual for your correct schematic.

