Kongsberg cNODE Modem Embed

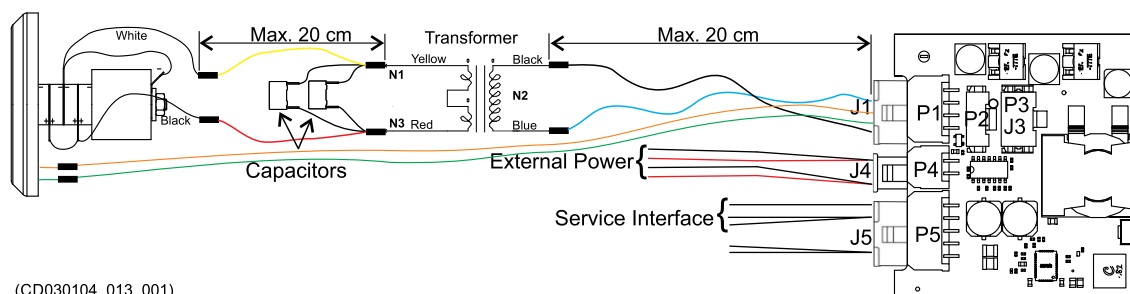*Quick Reference Guide*

KONGSBERG

Installing the cNODE Modem Embed cables

Procedure

1   Connect the transducer cable.

    If you have a cable kit, the wires are already connected to the connectors.

2   Prepare 8 wires with the appropriate length for the modem interface.

3   Install a crimp terminal in one end of each cable.

4   Install the crimp terminals in a Molex 8–pin receptacle according to the cable drawing.

5   Connect J3 to P3 on the top of the PCB.

6   Prepare 2 red and 2 black wires with the appropriate length for the power.

7   Install a crimp terminal in one end of each cable.

8   Install the crimp terminals in a Molex 4–pin receptacle according to the cable drawing.

9   Connect J4 to P4 in the front on the PCB.

10 Prepare 3 wires with the appropriate length for the service interface.

11 Install a crimp terminal in one end of each cable.

12 Install the crimp terminals in a Molex 8–pin receptacle according to the cable drawing.

13 Connect J5 to P5 in the front on the PCB.

Installing the transducer cables TD80V

Prerequisites

(CD030104_013_001)

Procedure

1   Use one yellow wire (0.5 mm^2) and connect the white wire from the transducer with both capacitors and the yellow wire from the transformer.

2   Use one red wire (0.5 mm^2) and connect the black wire from the transducer with both capacitors and the red wire from the transformer.
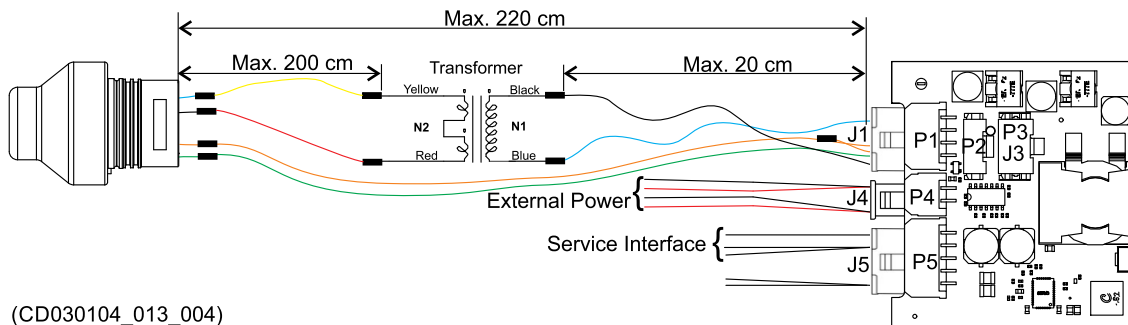
3   Use two black wires (0.5 mm²) and connect both to the black wire from the transformer.

4   Use two blue wires (0.5 mm²) and connect both to the blue wire from the transformer.

5   Use two green wires (0.24 mm²) and connect both to the green wire from the transducer.

6   Use one orange wire (0.24 mm²) and connect to the orange wire from the transducer.

7   Add crimp terminals to the end of the wires.

8   Install the crimp terminals in a Molex 8-pin receptacle according to the cable drawing.

    a   Connect the green wires to pin 1 and 5 on the receptacle.

    b   Connect the black wires to pin 3 and 7 on the receptacle.

    c   Connect the blue wires to pin 4 and 8 on the receptacle.

    d   Connect the orange wire to pin 6 on the receptacle.

    This is now receptacle J1.

9   Connect receptacle J1 to connector P1 on the front of the PCB.

Installing the transducer cables TD180

Prerequisites

(CD030104_013_004)

Procedure

1   Use one yellow wire (0.5 mm²) and connect the white wire from the transducer with the yellow wire from the transformer.

2   Use one red wire (0.5 mm²) and connect the black wire from the transducer with the red wire from the transformer.

3   Use two black wires (0.5 mm²) and connect both to the black wire from the transformer.

4   Use two blue wires (0.5 mm²) and connect both to the blue wire from the transformer.

5   Use two green wires (0.24 mm²) and connect both to the green wire from the transducer.

6   Use one orange wire (0.24 mm²) and connect to the orange wire from the transducer.

7   Add crimp terminals to the end of the wires.

8   Install the crimp terminals in a Molex 8-pin receptacle according to the cable drawing.

    a   Connect the green wires to pin 1 and 5 on the receptacle.

    b   Connect the black wires to pin 3 and 7 on the receptacle.

    c   Connect the blue wires to pin 4 and 8 on the receptacle.
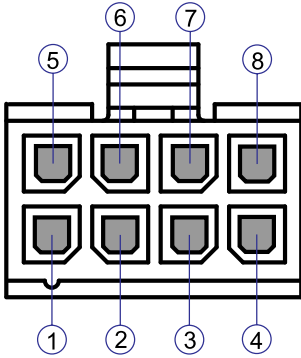
    d   Connect the orange wire to pin 6 on the receptacle.

        This is now receptacle J1.

9   Connect receptacle J1 to connector P1 on the front of the PCB.
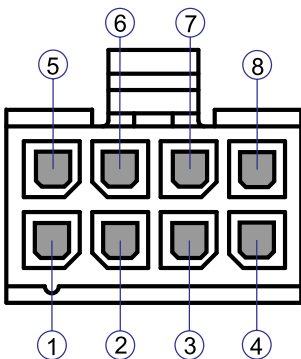
Transducer connector pinout J1

This is the pin configuration for a female plug, as seen towards the plug (face view).

Pin number	Colour	Signal	Minimum requirements
1	Green	ID data	0.24 mm^2
2		Screen	
3	Black	TD +	0.5 mm^2
4	Blue	TD −	0.5 mm^2
5	Green	ID data	0.24 mm^2
6	Orange	Ground	0.24 mm^2
7	Black	TD +	0.5 mm^2
8	Blue	TD −	0.5 mm^2

Modem interface connector pinout J3

This is the pin configuration for a female plug, as seen towards the plug (face view).
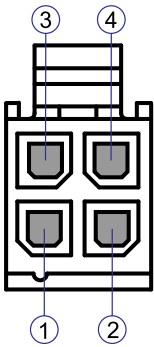

Pin number	Signal	Minimum requirements
1	RS-232 Tx	0.5 mm^2
2	RS-232 Rx	0.5 mm^2
3	Ground	0.5 mm^2

Pin number	Signal	Minimum requirements
4	RS-422 Tx +	0.5 mm^2
5	RS-422 Tx –	0.5 mm^2
6	RS-422 Rx +	0.5 mm^2
7	RS-422 Rx –	0.5 mm^2
8	Ground	0.5 mm^2

Power connector J4

This is the pin configuration for a female plug, as seen towards the plug (face view).

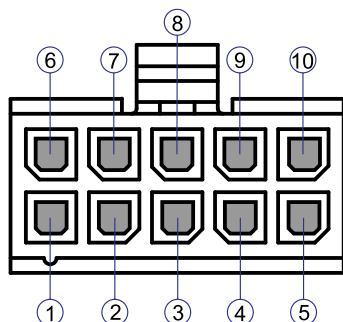| Pin number	Colour	Signal	Minimum requirements
1	Red	External power (24 VDC)	0.5 mm^2
2	Red	External power (24 VDC)	0.5 mm^2
3	Black	Ground	0.5 mm^2
4	Black	Ground	0.5 mm^2

Service connector J5

This is the pin configuration for a female plug, as seen towards the plug (face view).

Pin number	Signal	Minimum requirements
1	Not connected	
2	Not connected	
3	Not connected	
4	Ground	0.5 mm^2
5	Not connected	
6	Not connected	
7	Not connected	
8	Not connected	
9	RS-232 Tx	0.5 mm^2
10	RS-232 Rx	0.5 mm^2

Support information

Should you need technical support for your cNODE Modem Embed you must contact a Kongsberg Maritime office. A list of all our offices is provided on our website. You can also contact our main support office in Norway.

Manuals and technical information can be downloaded from our support website.

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