# Kongsberg cNODE Modem Embed - Transducer TD80V Quick Reference Guide



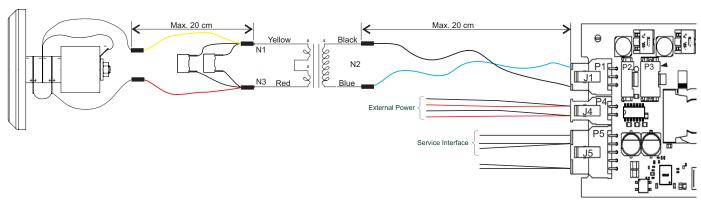
#### Installing the cNODE Modem Embed cables

- (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.

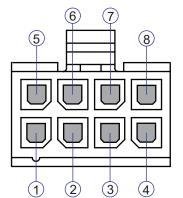
## Installing the transducer cables TD80V



- (1) Use one yellow wire (0.5 mm<sup>2</sup>) 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<sup>2</sup>) 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 mm<sup>2</sup>) and connect both to the black wire from the transformer.
- (4) Use two blue wires (0.5 mm<sup>2</sup>) and con-

nect both to the blue wire from the transformer.

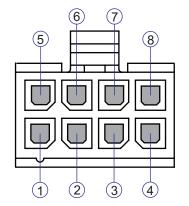
- (5) Use two green wires (0.24 mm<sup>2</sup>) and connect both to the green wire from the transducer.
- (6) Use one orange wire (0.24 mm<sup>2</sup>) and connect to the orange wire from the transducer.
- (7) Add crimp terminals to the end of the wires.
- (8) Install the crimp terminals in a Molex 8-pin receptacle according to the cable drawing.
- (8a) Connect the green wires to pin 1 and 5 on the receptacle.
- (8b) Connect the black wires to pin 3 and 7 on the receptacle.
- (8c) Connect the blue wires to pin 4 and 8 on the receptacle.
- (8d) 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).

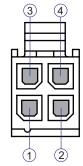
| Pin number | Colour | Signal  | Minimum requirements |
|------------|--------|---------|----------------------|
| 1          | Green  | ID data | 0.24 mm <sup>2</sup> |
| 2          |        | Screen  |                      |
| 3          | Black  | TD+     | 0.5 mm <sup>2</sup>  |
| 4          | Blue   | TD -    | 0.5 mm <sup>2</sup>  |
| 5          | Green  | ID data | 0.24 mm <sup>2</sup> |
| 6          | Orange | Ground  | 0.24 mm <sup>2</sup> |
| 7          | Black  | TD+     | 0.5 mm <sup>2</sup>  |
| 8          | Blue   | TD -    | 0.5 mm <sup>2</sup>  |



## Modem interface connector pinout J3

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

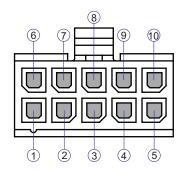
| Pin number | Signal      | Minimum requirements |
|------------|-------------|----------------------|
| 1          | RS-232 Tx   | 0.5 mm <sup>2</sup>  |
| 2          | RS-232 Rx   | 0.5 mm <sup>2</sup>  |
| 3          | Ground      | 0.5 mm <sup>2</sup>  |
| 4          | RS-422 Tx + | 0.5 mm <sup>2</sup>  |
| 5          | RS-422 Tx - | 0.5 mm <sup>2</sup>  |
| 6          | RS-422 Rx + | 0.5 mm <sup>2</sup>  |
| 7          | RS-422 Rx - | 0.5 mm <sup>2</sup>  |
| 8          | Ground      | 0.5 mm <sup>2</sup>  |



#### 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 <sup>2</sup>  |
| 2          | Red    | External power (24 VDC) | 0.5 mm <sup>2</sup>  |
| 3          | Black  | Ground                  | 0.5 mm <sup>2</sup>  |
| 4          | Black  | Ground                  | 0.5 mm <sup>2</sup>  |



#### **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 <sup>2</sup>  |
| 5          | Not connected |                      |
| 6          | Not connected |                      |
| 7          | Not connected |                      |
| 8          | Not connected |                      |
| 9          | RS-232 Tx     | 0.5 mm <sup>2</sup>  |
| 10         | RS-232 Rx     | 0.5 mm <sup>2</sup>  |

## **Support information**

If you need technical support, please contact a Kongsberg Discovery office. A list of our offices is available on our website. You can also contact our main support office in Norway. Manuals and technical information can be downloaded from our support website.

## Support website:

www.kongsberg.com/discovery/support/product-support-a-z/

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