## Kongsberg cNODE Modem Embed - Transducer TD180 Mini

### 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.

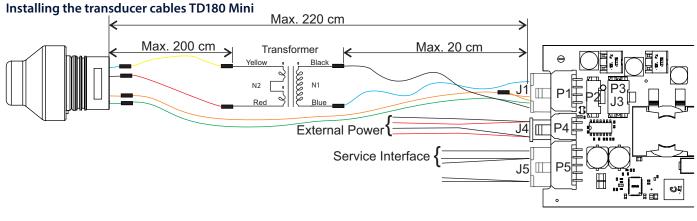
(9) Connect J4 to P4 in the front on the PCB.(10) Prepare 3 wires with the appropriate

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.



(1) Use one yellow wire (0.5 mm<sup>2</sup>) and connect the blue wire from the transducer with 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 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 connect 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.

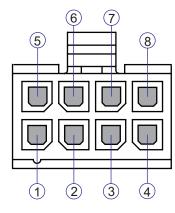
(8b) Connect the black wires to pin 3 and 7 on the receptacle.

(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.

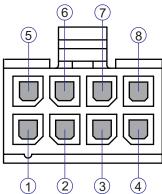
(9) Connect receptacle J1 to connector P1 on the front of the PCB.



#### 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

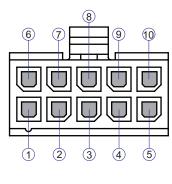
This is the pin configuration for a female plug, as seen towards the plug (face view).

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/ Website: www.kongsberg.com/discovery/ Email address: support.hpr@kd.kongsberg.com **Company name:** Kongsberg Discovery AS **Address:** Strandpromenaden 50, 3183 Horten, Norway.

**Telephone:** +47 33 03 41 00 **Telephone 24h support:** +47 33 03 24 07