




# Technical note

## Connecting WMT700 cables WMT700


### Connecting WMT700 cables

 **CAUTION!** Tighten the connector properly to avoid water leakage and damage to the sensor. Failure to tighten the connector properly voids the warranty.

 **CAUTION!** WMT700 cables have an easy-to-use cable connector. Tighten the connector by hand. Do not use tools.



If you have a cable tightening tool supplied by Vaisala in the past, do not use it with the current cable connector.





There are 3 WMT700 cable types:

- The hybrid cable designed for the fully heated WMT700. You can use it with all versions.
- The standard cable for non-heated, transducer-heated, and transducer-and-arm-heated WMT700.
- The RS-485 cable for RS-485 connections only. You can use it for non-heated, transducer-heated, and transducer-and-arm-heated WMT700.

Table 1 WMT700 Cable Types

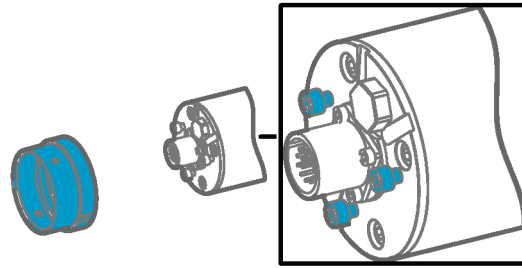
Cable type	Fully-heated WMT700	Transducer-and-arm-heated WMT700	Transducer-heated WMT700	Non-heated WMT700	RS-485 Connections
Hybrid cable	✓	✓	✓	✓	
Standard cable		✓	✓	✓	
RS-485 cable		✓	✓	✓	✓

 **CAUTION!** Do not use the standard cable and the RS-485 cable with the fully heated WMT700.

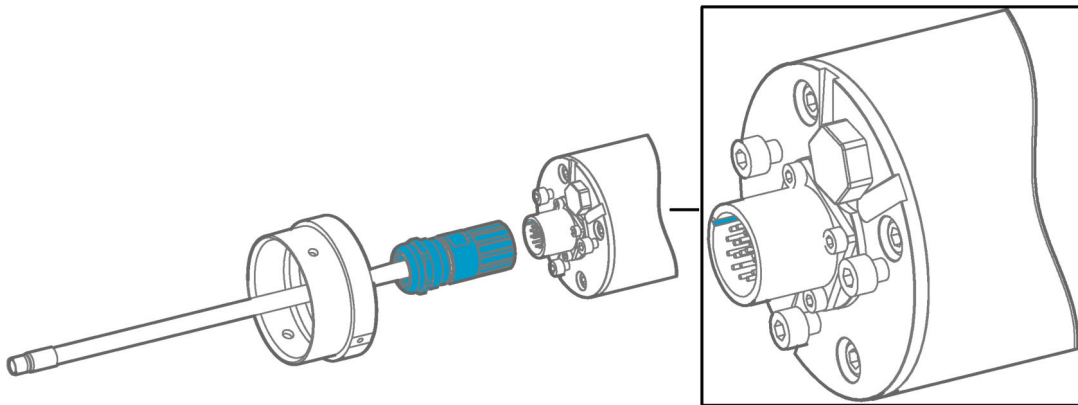
 4-mm Allen key



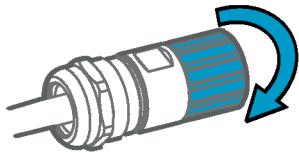
- ▶ 1. Loosen the M5 screws (3 pcs) with a 4-mm Allen key and rotate the connector cover to remove it.



2. To attach the connector, guide it to the connector slot.



3. To tighten the connector, turn the locking ring.

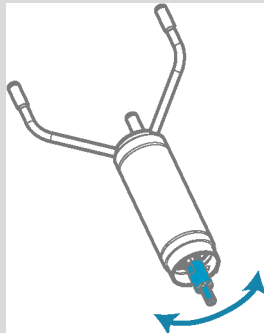


**CAUTION!** Turning the connector body may break the connector.


4. Reattach the connector cover and tighten the M5 screws (3 pcs).



To verify that the cable is tight, wiggle the cable and make sure the locking ring is tight.



5. Connect the wires according to the following table.

 This document lists the wire colors of WMT700 cables. You can differentiate the cables by the wire colors.

Pin	Description					Hybrid Cable	Standard Cable	RS-485 Cable
						<b>Fully heated WMT700</b>	<b>Other WMT700 models</b>	<b>RS-485 connections</b>
1	Operating power supply					Brown 0.25 mm <sup>2</sup>	White 0.25 mm <sup>2</sup>	White 0.25 mm <sup>2</sup>
11	Operating power supply ground					Blue 0.25 mm <sup>2</sup>	Gray/pink 0.25 mm <sup>2</sup>	Gray/pink 0.25 mm <sup>2</sup>
5	Heater power supply					White/red 1.0 mm <sup>2</sup>	Gray 0.25 mm <sup>2</sup>	Gray 0.25 mm <sup>2</sup> Green 0.25 mm <sup>2</sup>
6						Red 1.0 mm <sup>2</sup>	Pink 0.25 mm <sup>2</sup>	Pink 0.25 mm <sup>2</sup>
7	Heater power supply ground					Black 1.0 mm <sup>2</sup>	Blue 0.25 mm <sup>2</sup>	Blue 0.25 mm <sup>2</sup> Black 0.25 mm <sup>2</sup>
8						White/black 1.0 mm <sup>2</sup>	Red 0.25 mm <sup>2</sup>	Red 0.25 mm <sup>2</sup> Yellow 0.25 mm <sup>2</sup>
Shield	Enclosure ground							
	<b>Analog outputs</b>							
2	Analog output AOUT2, wind direction					White/violet 0.14 mm <sup>2</sup>	Brown 0.25 mm <sup>2</sup>	-
13	Analog output AOUT1, wind speed					Violet 0.14 mm <sup>2</sup>	White/green 0.25 mm <sup>2</sup>	-
17	Reference input for AOUT2 (simulated potentiometer)					White/gray 0.14 mm <sup>2</sup>	White/gray 0.25 mm <sup>2</sup>	-
12	Analog output ground					Gray 0.14 mm <sup>2</sup>	Red/blue 0.25 mm <sup>2</sup>	-
	<b>COM port</b>	<b>RS-232</b>	<b>RS-422</b>	<b>RS-485</b>	<b>SDI-12</b>			
3	COM2	RS232Rx	RX-	RX-	-	Green 0.14 mm <sup>2</sup>	Green 0.25 mm <sup>2</sup>	Brown 0.25 mm <sup>2</sup> (pins 3 and 4 are connected inside the cable)
4		RS232Tx	TX-	TX-	Data	Orange 0.14 mm <sup>2</sup>	Yellow 0.25 mm <sup>2</sup>	

Pin	Description					Hybrid Cable	Standard Cable	RS-485 Cable
						<b>Fully heated WMT700</b>	<b>Other WMT700 models</b>	<b>RS-485 connections</b>
14		-	TX+	TX+	-	White/orange 0.14 mm <sup>2</sup>	Brown/green 0.25 mm <sup>2</sup>	Red/blue 0.25 mm <sup>2</sup> (pins 14 and 15 are connected inside the cable)
15		-	RX+	RX+	-	White/green 0.14 mm <sup>2</sup>	White/yellow 0.25 mm <sup>2</sup>	
10	COM1 and COM2 communication ports ground					White/blue 0.14 mm <sup>2</sup>	Violet 0.25 mm <sup>2</sup>	Violet 0.25 mm <sup>2</sup>
9	COM1 service port	RS-485 -				White/pink 0.14 mm <sup>2</sup>	Black 0.25 mm <sup>2</sup>	-
16		RS-485 +				Pink 0.14 mm <sup>2</sup>	Yellow/brown 0.25 mm <sup>2</sup>	-