

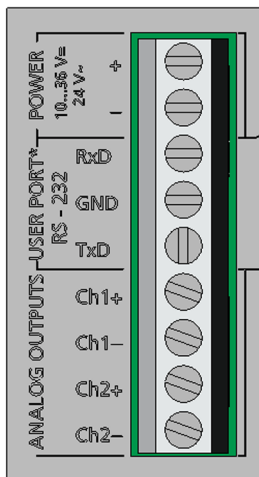
VAISALA TRANSMITTERS HMT330, DMT340 AND MMT330

Power supply: Operating voltage with optional power supply module	10 ... 35 VDC, 24 VAC 100 ... 240 VAC, 50/60 Hz
Power consumption @ 20 °C (U _{in} 24VDC) RS-232 U _{out} 2 × 0 ... 1V / 0 ... 5V / 0 ... 10V I _{out} 2 × 0 ... 20 mA display and backlight during sensor purge	max 25 mA max 25 mA max 60 mA + 20 mA + 110 mA max
Analog outputs (2 standard, 3rd optional) current output voltage output	0 ... 20 mA, 4 ... 20 mA 0 ... 1 V, 0 ... 5 V, 0 ... 10 V
External loads current outputs 0 ... 1V output 0 ... 5V and 0 ... 10V outputs	R _L < 500 ohm R _L > 2 kohm R _L > 10 kohm
Max wire size	0.5 mm ² (AWG 20) stranded wires recommended

Electrical Connections

WARNING

Make sure that you connect only de-energized wires.



Signal and Power Supply Wiring

1. Open the transmitter cover by taking out the four cover screws.
2. Insert the power supply wires and signal wires through the cable bushing in the bottom of the transmitter. Ground the screen of the electrical cable.
3. Connect the analog output cables to terminals: **Ch1+**, **Ch1-**, **Ch2+**, **Ch2-**, see Figure 1 on the left. Connect the RS-232 user port cables to terminals RxD, GND and TxD.
4. When wiring optional 240 VAC power supply, RS-485, relay module or additional analog output module, see the appropriate user guide.
5. Connect the power supply wires to the connectors: **POWER 10 ... 35V+ 24V~ (+) and (-) terminals**. If you are using 24 VAC power supply, see the caution below before connecting the supply wires.

Figure 1 Signal and Power Supply Screw Terminals

CAUTION

Avoid ground loops when using 24 VAC power supply. Use of power supply with floating ground is recommended. Connect NULL wire to "-" connector of transmitter and PHASE to "+" when using 24 VAC power supplies.

If you are using single 24 VAC power supply to power multiple transmitters, never connect same wire to "+" connector of a transmitter and to "-" connector of another one.

Wiring with Optional 8-Pole Connector

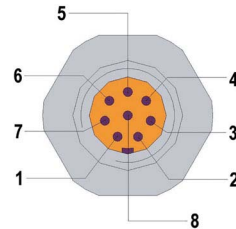


Figure 2 Optional 8-Pole Connector

Table 1 Wiring of 8-Pin Connector

PIN/Terminal	Wire	Serial Signal		Analog Signal
		RS-232 (EIA-232)	RS-485 (EIA-485)	
1	White	Data out TX	A –	
2	Brown	(serial GND)	(serial GND)	Signal GND (for both channels)
3	Green			Ch 2+
4	Yellow			Ch 1 +
5	Grey	Supply –	Supply –	Supply –
6	Pink	Supply +	Supply +	Supply +
7	Blue	Data in RX	B –	
8	Shield/Red	Cable shield	Cable shield	Cable shield

Grounding the Cables

Ground the screen of the electrical cable properly to achieve the best possible EMC performance.

Grounding the Housing

In case you need to ground the transmitter housing, the grounding connector is found inside the housing. Note however that the probe head is connected to the same potential as the housing. Make sure that different groundings are made to the same potential. Otherwise harmful ground currents may be generated.

Taking into Use

Turn on the power. The indicator led on the cover lit continuously during normal operation. Close the cover and replace the cover screws. The transmitter is ready for use.