

VAISALA BAROCAP® DIGITAL BAROMETER PTB330

Operating voltage	10 ... 35 VDC
Typical power consumption at +20 °C (U _{in} 24 VDC, one pressure sensor)	
RS-232	25 mA
RS-485	40 mA
U _{out}	25 mA
I _{out}	40 mA
display and backlight	+ 20 mA
Analog outputs	
current output	0 ... 20 mA, 4 ... 20 mA
voltage output	0 ... 1 V, 0 ... 5 V, 0 ... 10 V
External loads	
current outputs	R _L < 500 ohm
0 ... 1V output	R _L > 2 kohm
0 ... 5V and 0 ... 10V outputs	R _L > 10 kohm
Max wire size	1.5 mm ² (AWG 16)

Electrical Connections

WARNING Make sure that you connect only de-energized wires.

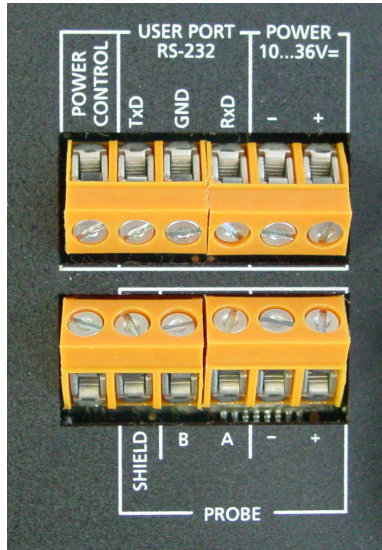


Figure 1 Signal and Power Supply Screw Terminals

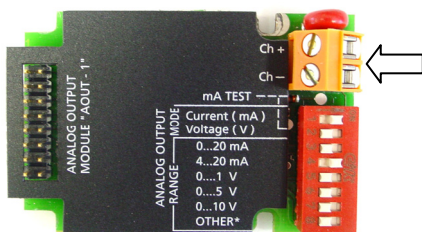


Figure 2 Analog output module

Basic Wiring Using Screw Terminals

1. Open the four cover screws and open the barometer cover.
2. Insert the power supply wires and signal wires through the cable bushing in the bottom of the barometer. Ground the screen of the electrical cable.
3. Connect the RS-232 user port cables to terminals Tx D, GND and Rx D on the screw terminal block. See Figure 1 on the left.
4. If you have the optional analog output module, connect the cables to the terminals Ch+ and Ch- on the analog output module. The terminals are shown in Figure 2.
5. When wiring the optional AC power supply, RS-485, or relay module, refer to the PTB330 User's Guide.
6. In case you need to ground the barometer housing, the grounding connector is found inside the housing. Make sure that different groundings are made to the same potential. Otherwise harmful ground currents may be generated.
7. Connect the power supply wires to (+) and (-) terminals marked **POWER 10 ... 36V=**.
8. Close the cover and tighten the cover screws.

Wiring with M12 (8-Pin) Connector

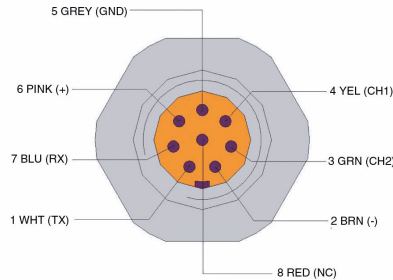


Figure 3 Optional 8-Pin Connector

Table 1 Pin Assignments of the 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 (optional)	Green	External power control	(serial GND)	Signal GND (for both channels)
4	Yellow	-	-	Analog output
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

Wiring with Optional D-9 Connector

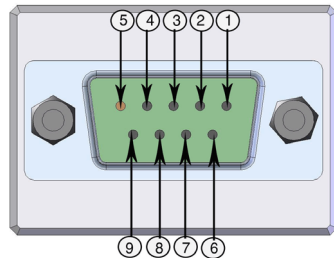


Figure 3 Optional D-9 Connector

Table 2 Pin Assignments of the D-9 Connector

PIN/Terminal	Wire	Serial Signal		Analog Signal + RS232
		RS-232 (EIA-232)	RS-485 (EIA-485)	
1	Red			
2	White	TX		TX
3	Black	RX		RX
4 (optional)	Yellow	External power control	External power control	External power control
5	Brown	Ground		Ground
6	Green		LO	Aout
7	Blue	Ground for supply voltage	Ground for supply voltage	GND supply
8	Grey		HI	AGND
9	Orange	Supply voltage (10...30 VDC)	Supply voltage (10...30 VDC)	Supply