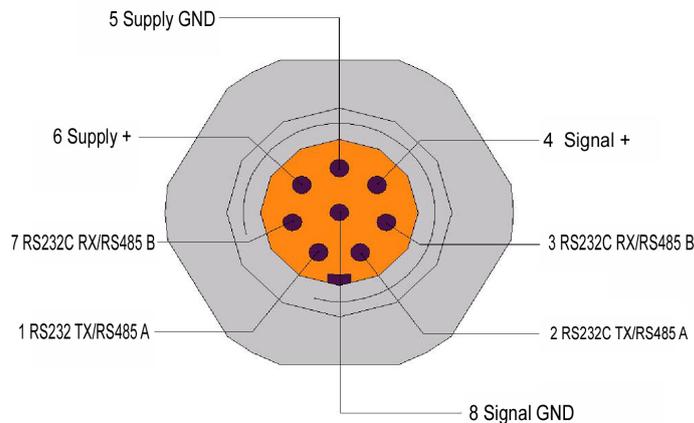


## VAISALA CARBOCAP® CARBON DIOXIDE PROBE GMP343

Power supply Operation voltage Power consumption	11 ... 36 VDC without heating < 1 W with heating max 3.5 W
Analog output Current output resolution max load  Voltage output resolution min load	4 ... 20 mA 14 bits 800 Ω @ 24 VDC 150 Ω @ 10 VDC 0 ... 2.5 V / 0 ... 5 V 14 bits (13 bits with 0 ... 2.5 V) 5 kΩ

### Signal and Power Supply Wiring

**WARNING** Be sure that the main power is switched off before making any electrical connections.



**Table 1 GMP343 Connector Pinout**

Pin	Wire	Serial signal (RS232 or 2-Wire RS-485 interface)		Analog signal
1	White	RS232C: TX	RS485: A(+)	-
2	Brown	RS232C: TX	RS485: A(+)	-
3	Green	RS232C: RX	RS485: B(-)	-
4	Yellow	-	-	Signal +
5	Grey	Supply GND	Supply GND	Supply GND
6	Pink	+11 ... 36 V DC	+11 ... 36 V DC	+11 ... 36 V DC
7	Blue	RS232C: RX	RS485: B(-)	-
8	Shield	-	-	Signal GND

There are two pins per signal internally hardwired in parallel (pins 1 and 2, pins 3 and 7). You should connect the RS232C signal 'TX' (or 2-Wire RS485 signal 'A') either to the pin 1 or 2 and the RS232C signal 'RX' (or 2-Wire RS485 signal 'B') either to the pin 3 or 7.

Note that there is either an RS232 or a 2-wire RS485 interface available according to initial configuration. However, if the device is configured as RS485 output, you can reconfigure it to use RS232 using the RSMODE command. See GMP343 User's Guide for instructions.

### Wiring of the Junction Box

The optional junction box enables wiring of several GMP343 probes to one cable. A maximum of five GMP343 probes within the measurement area can be connected to the junction box and wired with one cable to the control unit.

Inside the junction box all probes are connected in parallel to eight numbered terminals. To differentiate between the readings of each probe, it is necessary to assign each probe an individual address. Therefore the RS485 output is the appropriate alternative. See GMP343 User's Guide for instructions on how to change the serial mode (RSMODE command) and set the transmitter address (ADDR command).

When you have configured the probes, connect them to the junction box according to the following scheme (refer to GMP343 connector pinout on previous page):

- All Tx wires together: pin 1 (white) or pin 2 (brown); RS485: A(+)
- All Rx wires together: pin 3 (Green) or pin 7 (blue); RS485: B(-)
- All Supply GND wires together: pin 5 (grey)
- All Supply +11 ... 36 V DC wires together: pin 6 (pink)



Figure 1 Junction Box 8-pole Connection Bar

### Taking into Use

The device is ready for use when the wiring is done and power is switched on.