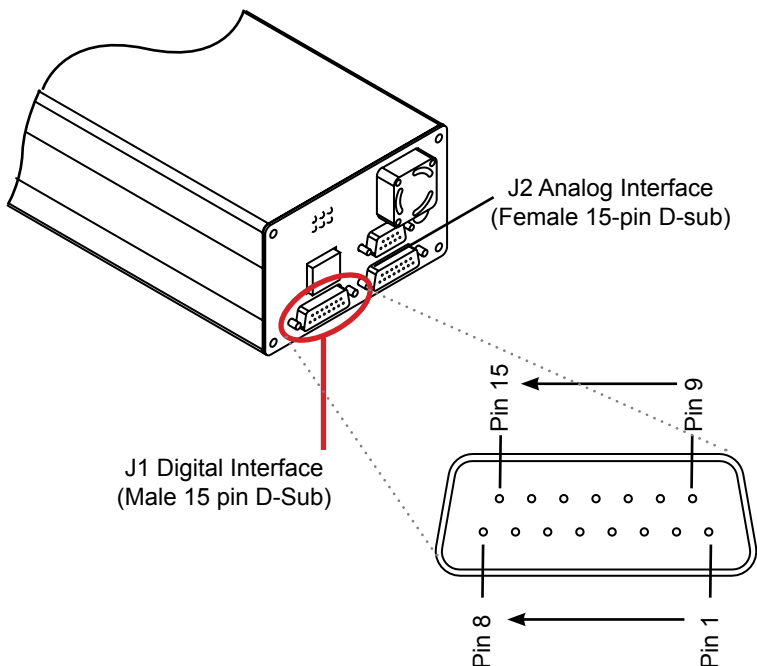


Verionix Gas Composition Sensor Digital I-O Interface Specifications

PN 910031R5 (March 2009)

For All Verionix Vx-6100 Series Trace Gas Sensors



J1 Digital Interface Connector		
Pin #	Input or Output?	Signal
1	Output	Ground Reference (GND)
2	Output	+5.0 VDC Reference
3	Output	Out of Range? (NO/YES, OD_3)
4	Output	Range Active? (LOW/HIGH, OD_1)
5	Input	Activate Sensor (STANDBY/ON, ID_0)
6		Connect to Digital Ground
7		Connect to Digital Ground
8		Connect to Digital Ground
9	Output	+5.0 VDC Reference
10		No Connection
11	Output	Over Threshold? (NO/YES, OD_2)
12	Output	Sensor State? (STANDBY/ON, OD_0)
13	Input	Set Range (LOW/HIGH, ID_1)
14		Connect to Digital Ground
15		Connect to Digital Ground

ID_X = Digital Input X
OD_Y = Digital Output Y
Note: Vx-6000 series sensors may differ

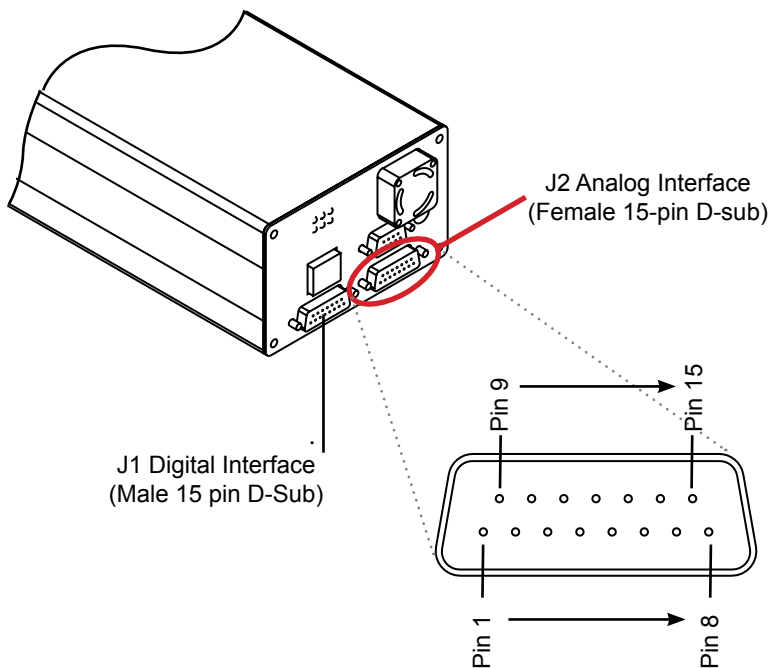
Specifications

Electrical:	1 TTL-compatible input (0 to 5 VDC, NO, with 1k-Ω internal impedance) 6 TTL-compatible outputs (0 or 5 VDC, NO, with 1k-Ω internal impedance) All signal lines and associated grounds are electrically isolated from the sensor and meet ESD and transient voltage requirements per IEC1000-4-2 & IEC1000-4-4.
Mechanical:	15-pin D-sub (Male) connector used on sensor. 15-pin D-sub (Female) mating connector required.
Software Interface:	Input signals ID_0 to ID_1 are read by the sensor. Output signals OD_0 to OD_3 are set by the sensor.
Notes:	<ul style="list-style-type: none"> Connect all unused input signal lines to ground. Make no connection to unused output signal lines. To minimize noise, the Digital Interface Ground and the Analog Interface Grounds should be connected to separate external grounds.

Verionix Gas Composition Sensor Analog I-O Interface Specifications

P/N 910031R5 (March 2009)

For All Verionix Vx-6100 Series Trace Gas Sensors



J2 Analog Interface Connector		
Pin #	Input or Output?	Signal
1		Connect to Analog Ground
2		Connect to Analog Ground
3		Connect to Analog Ground
4		Connect to Analog Ground
5		No Connection
6		No Connection
7	Output	Trace Gas Concentration Level (OA_0)
8		Connect to Analog Ground
9		Connect to Analog Ground
10		Connect to Analog Ground
11		Connect to Analog Ground
12		Connect to Analog Ground
13		No Connection
14		No Connection
15		No Connection

OA_X = Analog Output X
Note: Vx-6000 series sensors may differ

Specifications

Electrical:	1 analog output (0 to 4.1 VDC, 12-bits, ~ 1 millivolt/bit). All signal lines and associated grounds are electrically isolated from the sensor and meet ESD and transient voltage requirements per IEC1000-4-2 & IEC1000-4-4.
Mechanical:	15-pin D-sub (Female) connector used on sensor. 15-pin D-sub (Male) mating connector required.
Software Interface:	Output signal OA_0 varies between 0 and 4.1 VDC, reflecting trace gas concentration between LOW or HIGH Range (as configured by User)
Notes:	<ul style="list-style-type: none"> Analog outputs: Each sources/sinks ≤ 7.5 milliamp @ $< 1\Omega$ Output Impedance. Connect all unused input lines to ground. Make no connection to unused output signal lines. To minimize noise, the Digital Interface ground and the Analog Interface grounds should be connected to separate external grounds.