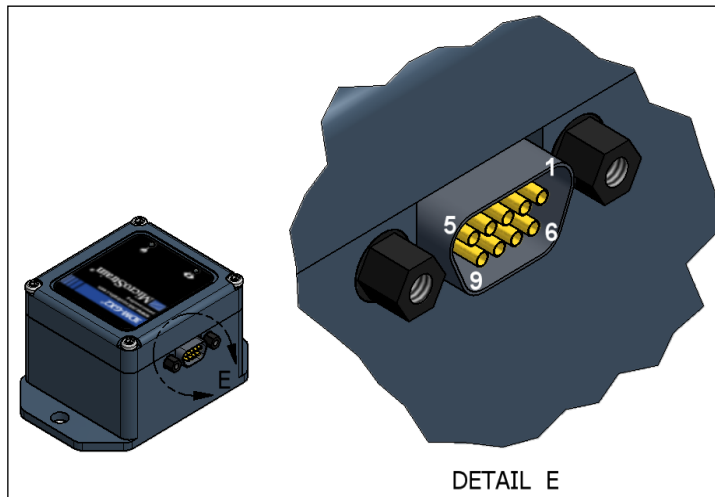


LORD TECHNICAL NOTE

3DM-GX2[®], Inertia-Link[®], 3DM-GX3[®], 3DM-GX4[™] Connector and Pinouts

Overview

The 3DM-GX2[®], Inertia-Link[®], standard 3DM-GX3[®] and standard 3DM-GX4[™] inertial sensors have a 9-pin female “Micro-D” connector mounted on their enclosure sidewall for power and communications. Mating connectors are available from Ulti-Mate Connector Inc. (www.umi-c.com). Any “A” Series or “P” Series 9-pin male Micro-D connector will mate with the 3DM-GX2[®], Inertia-Link[®], 3DM-GX3[®] and 3DM-GX4[™]. These connectors are available with various termination options to suit a wide range of requirements.



Electrical Connections

Pin #	USB ⁴	RS232 ⁴	RS422 ⁴	Wireless ⁴
1	D-	-	-	-
2	D+	-	-	-
3	+5V ¹	+5V ¹	+5V ¹	-
4	-	RxD ³	RxD+ ³	Do not connect
5	-	TxD ³	RxD- ³	Do not connect
6	+6V/+9V/+12V ¹	+6V/+9V/+12V ¹	+6V/+9V/+12V ¹	+6V/+9V/+12V ²
7	-	-	TxD+ ³	-
8	GND	GND	GND	GND
9	-	-	TxD- ³	-

Important: The values in the table which have footnotes are generalizations. Please refer to the model specific footnotes on page 2 for actual values.

Footnotes

¹ Connect *either* pin 3 or pin 6 per table below. Use whichever pin is more convenient. Leave the unused one unconnected.

Device	Pin 3	Pin 6
3DM-GX4-45	+3.2V to +5.5V	+5.2V to +36V
3DM-GX4-25	+3.2V to +5.5V	+5.2V to +36V
3DM-GX4-15	+3.2V to +5.5V	+5.2V to +36V
3DM-GX3-45	+3.2V to +5.5V	+5.2V to +16V
3DM-GX3-35	+3.2V to +5.5V	+5.2V to +16V
3DM-GX3-25 (serial number 2290 and higher)	+3.2V to +5.5V	+5.2V to +16V
3DM-GX3-25 (serial number 2289 and lower)	+4.5V to +5.5V	+5.2V to +5.5V ^{***}
3DM-GX3-15	+3.2V to +5.5V	+5.2V to +16V
3DM-GX2	+4.5V to +5.5V	+5.2V to +16V
Inertia-Link	+4.5V to +5.5V	+5.2V to +16V

^{***}GX3-25 serial numbers 2289 and lower have a max voltage of +5.5V unless thermal precautions are taken; please consult factory.

² Wireless products require power on pin 6.

Pin 6 voltage allowable range is +5.2V to +16V.

³ RxD is the node's receive pin, and should be connected to the host's transmit pin.

TxD is the node's transmit pin, and should be connected to the host's receive pin.

⁴ Electrical Connections for several communication interface types are shown. Use the connection that is appropriate to the interface on your specific orientation sensor model.

Standard Cables

LORD MicroStrain[®] offers the following standard cables for use in interfacing to 3DM-GX2[®], Inertia-Link[®], 3DM-GX3[®] and 3DM-GX4[™] products:

Part Number	Interface
6212-1040	USB Cable
6212-1000	RS-232 Cable
6212-1070	RS-422 Cable
6212-0000 or 6215-0000	Battery Pack (for wireless)

Note: LORD MicroStrain[®] standard cables do not provide all wiring patterns as shown in the Electrical Connections table. Please check the mechanical drawing of each cable or with LORD MicroStrain[®] support engineers for your specific application.

Custom Cable Components

Part Number	Description	Available From
6224-0100	9 lead (18 inches) color coded Micro-D craft cable with male connector, plastic housing, copper retainers and screws	LORD MicroStrain [®]
PR09N05	Male connector, solder cup, plastic housing	Ulti-Mate
PR09P05-26E5-4.0	Male connector, 4" 26AWG leads, plastic housing	Ulti-Mate

Support

LORD MicroStrain[®] support engineers are always available to expand on this subject and support you in any way we can.