



3050797 GPS to J1939 CAN Gateway

VEHICLE POSITION DATA IN A COMPACT DESIGN

Innovative Controls Inc. 3050797 GPS to J1939 CAN Gateways provide positional data including latitude, longitude, course/heading, speed, altitude, and UTC time – all over a J1939 standard CAN messaging format.

Data is transmitted using the following J1939 PGNs:

- PGN 65267 – Vehicle Position 1 (VP1)
- PGN 65256 – Vehicle Direction/Speed (VDS)
- PGN 65254 – Time/Date (TD)

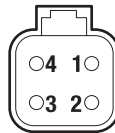
FEATURES

- **Compact Design**
- **All-in-one unit receives GPS data, and translates into J1939 Standard CAN format.**
- **IP68 Rated Enclosure w/ Mounting Tabs Included**
- **4-Pin TE/Deutsch DTM04-4P Connector**



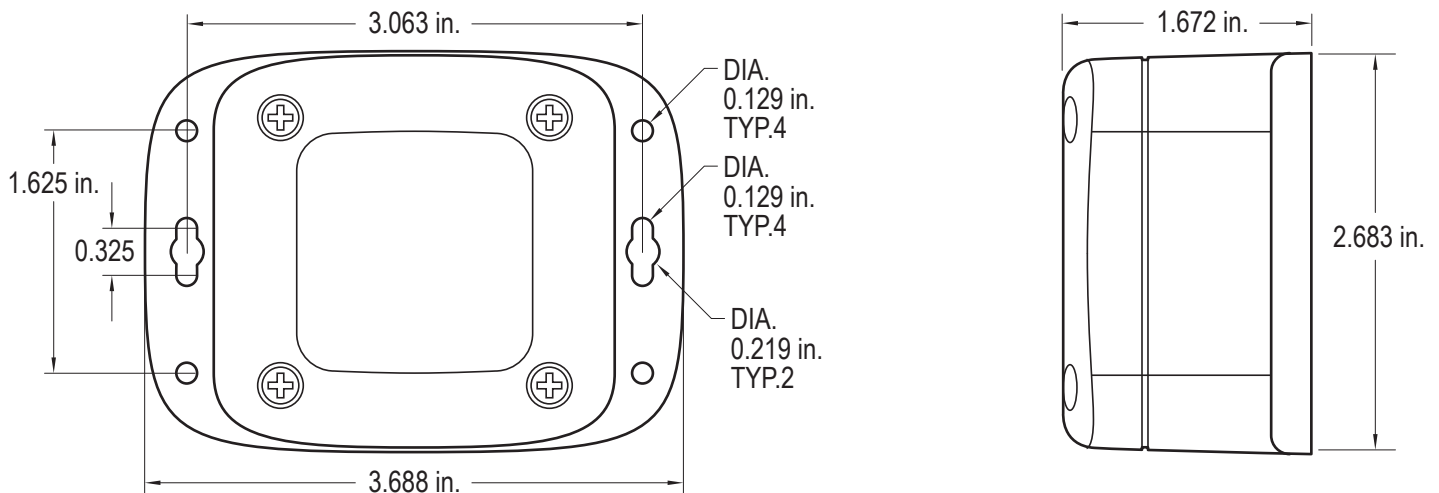
TECHNICAL SPECIFICATIONS

Operating Voltage	7.2 to 40VDC
Current Consumption	65mA
Operating Temp. Range	-40°C to +85°C (-40°F to +185°F)
Storage Temp. Range	-40°C to +85°C (-40°F to +185°F)
Ingress Protection	IP68
Electrical Protection	Power input is protected from reverse polarity, over-current, over-voltage, and voltage transients.
Dimensions	3.688 x 2.683 x 1.672 in.
Weight	7 oz



Deutsch DTM04-4P Connector	
Terminal	Description
1	+12VDC (Battery) Power
2	CAN LOW
3	CAN HIGH
4	-12VDC (Battery GND)

DIMENSIONS



CAN DEFINITIONS

PGN: 65254 (0xFEE6)		SA: 210 (0xD2)		Priority: 6 (0x18)		Transmit Rate: 1s		Data Length: 8 bytes	
Position	SPN Length	SPN	SPN Name	Resolution	Offset	Data Range	Operational Range	Units	
1	1 byte	959	Seconds	0.25 s/bit	0	0 to 62.5 s	0 to 59.75 sec	s	
2	1 byte	960	Minutes	1 min/bit	0	0 to 250 min	0 to 59 min	min	
3	1 byte	961	Hours	1 h/bit	0	0 to 250 h	0 to 23 hr	hr	
4	1 byte	963	Month	1 month/bit	0	0 to 250 months	1 to 12 month	mo	
5	1 byte	962	Day	0.25 days/bit	0	0 to 62.5 days	0.25 to 31.75 day	day	
6	1 byte	964	Year	1 year/bit	1985 years	1985 to 2235 years	1985 to 2235 years	yr	
7-8	Not used								

PGN: 65256 (0xFEE8)		SA: 210 (0xD2)		Priority: 6 (0x18)		Transmit Rate: 1s		Data Length: 8 bytes	
Position	SPN Length	SPN	SPN Name	Resolution	Offset	Data Range	Operational Range	Units	
1-2	2 bytes	165	Course/Compass Bearing	1/128 deg per bit	0	0 to 501.99 deg	0 to 359.99 deg	deg	
3-4	2 bytes	517	Navigation-Based Vehicle Speed	1/256 km/h per bit	0	0 to 250.996 km/h	0 to 250.996 km/h	km/h	
5-6	Not used								
7-8	2 bytes	580	Altitude	1/8 m per bit	-2500m	-2500 to 5531.875 m	-2500 to 5531.875 m	m	

PGN: 65267 (0xFEE3)		SA: 210 (0xD2)		Priority: 6 (0x18)		Transmit Rate: 1s		Data Length: 8 bytes	
Position	SPN Length	SPN	SPN Name	Resolution	Offset	Data Range	Operational Range	Units	
1-4	4 bytes	584	Latitude	0.0000001 deg/bit	-210 deg	-210 to 211.1081215 deg	-210 deg (SOUTH) to +211.1081215 deg (NORTH)	deg	
5-8	4 bytes	585	Longitude	0.0000001 deg/bit	-210 deg	-210 to 211.1081215 deg	-210 deg (WEST) to +211.1081215 deg (EAST)	deg	

PGN: 65504 (0xFFE0)		SA: 210 (0xD2)		Priority: 6 (0x18)		Transmit Rate: 1s		Data Length: 8 bytes	
Position	SPN Length	SPN	SPN Name	Resolution	Offset	Data Range	Operational Range	Units	
1	1 byte	N/A	Number of Satellite Connections	1 Satellite/bit	0	0 to 255	0 to 72 Satellites	Satellites	
2-8	Not used								