**GPS\_NMEA**  
  
NMEA Message types and contents:

Note: All example data taken from valid NMEA sentences.

**GGA:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Message Field** | **Example Data** | **Can We Get It?** | **How Do We Get It?** | **Possible Default Value** |
| Message ID | $GPGGA | Yes | Generate | $GPGGA |
| UTC of position fix | 092750.000 | ? | System time? | 0 |
| Latitude | 5321.6802 | Yes | User Provided | 0 |
| Direction of Lat | N | Yes | User Provided | N |
| Longitude | 00630.3372 | Yes | User Provided | 0 |
| Direction of Lon | W | Yes | User Provided | W |
| GPS Quality Indicator | 1 | Yes | Generate | 1 |
| Number of Sats | 8 | Yes | Generate | 8 |
| Dilution of Precision | 1.03 | No | - | Null |
| Orthometric Height (altitude of antenna) | 61.7 | Yes | User Provided | Null |
| Unit For Orthometric Height | M | Yes | User Provided | Null |
| Geoid Separation | 55.2 | No | - | Null |
| Unit For Geoid Separation | M | No | - | Null |
| Reference Station ID | Null | No | - | Null |
| Checksum | \*76 | Yes | Generate | Checksum |

**RMC:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Message Field** | **Example Data** | **Can We Get It?** | **How Do We Get It?** | **Possible Default Value** |
| Message ID | $GPRMC | Yes | Generate | $GPRMC |
| UTC of position fix | 092750.000 | ? | System time? | 0 |
| Status (Active or Void) | A | Yes | Generate | A |
| Latitude | 5321.6802 | Yes | User Provided | 0 |
| Direction of Lat | N | Yes | User Provided | N |
| Longitude | 00630.3372 | Yes | User Provided | 0 |
| Direction of Lon | W | Yes | User Provided | W |
| Speed (knots) | 0.02 | Yes | User Provided | Null |
| Track Angle in degrees (true north) | 31.66 | ? | User Provided | Null |
| Date | 280511 | Yes | Generate | Null |
| Magnetic variation in degrees | Null | ? | ? | Null |
| Direction of variation | A | ? | ? | Null |
| Checksum | \*45 | Yes | Generate | Checksum |

**VTG:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Message Field** | **Example Data** | **Can We Get It?** | **How Do We Get It?** | **Possible Default Value** |
| Message ID | $GPVTG | Yes | Generate | $GPVTG |
| Track Made Good (degrees true) | 360.0 | Yes | User Provided | Null |
| T: Relative to true north? | T | Yes | Generate | T |
| Track Made Good (degrees magnetic) | 348.7 | No | - | Null |
| M: Relative to magnetic north? | M | No | - | Null |
| Speed (knots) | 000.0 | Yes | User Provided | Null |
| N: Speed is measured in knots? | N | Yes | Generate | N |
| Speed over ground (kph) | 000.0 | Yes | User Provided | Null |
| K: Speed over ground in kph? | K | Yes | Generate | K |
| Checksum | \*43 | Yes | Generate | Checksum |