PGN and NMEA 0183 sentence conversion matrix

Version: 3.42.0

A number instead of a ● indicates a note

PGN	Description	Freq. (Hz)	TX	RX	APB	BWC/BWR	DBT	DPT	GGA	GLL	GSA	GST	GSV	HDG	HDM	HDT	MDA	MTW	MWD	MWV	PSIMTV80	RMB	RMC	ROT	RPM	RSA	TLL	THS	VBW	VDM/O	VDR	VHW	VLW	VTG	VWR	VWT	WPL	WCV	XDR	XTE	ZDA	ZTG	PFEC,GPatt	PFEC,GPhve
		RX	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
		TX	●	●	●	●	●	●	●	●	●	●	●	●	8	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●				●	●	●	●	●	●	●
			1	1	1	1	1	1	1	-	1	10		10	1	1	1	1	5	-	1	1	10	10	10		10	10	-	1	10	1	1				1	1	1	1	1	-	-
65286	Fluid Flow Rate (Maretron Proprietary)			●																																		9					
65330	Mast Angle (ShipModul Proprietary)	2	●																																			●					
126992	System Time	1	●	●																																				●				
127237	Heading/Track Control			●										●	●	●												●			●													
127245	Rudder	10	●	●																						●																	
127250	Vessel Heading	10	●	●										●	●	●							1					●			●													
127251	Rate of Turn	10	●	●																				●																			
127252	Heave	10	●	●																																		2.9					2.9
127257	Attitude	1	●	●																																		2.9				2.9	
127258	Magnetic variation	1	●	●										●									●																				
127488	Engine Parameters, Rapid Update			●																					9													9					
127489	Engine Parameters, Dynamic			●																																	9					
127493	Transmission Parameters, Dynamic			●																																	9					
127497	Trip Fuel Consumption, Engine			●																																	9					
127505	Fluid Level			●																																	9					
127506	DC - Detailed Status			●																																	●					
127508	Battery Status			●																																	●					
128259	Speed, Water referenced	1	●	●																									●			●										
128267	Water Depth	1	●	●			3	3																																		
128275	Distance Log	1	●	●																													●									
129025	Position, Rapid Update	10	●	●					●	●													●																				
129026	COG & SOG, Rapid Update	4	●	●																			●											●									
129029	GNSS Position Data	1	●	●					●	●													●																				
129033	Local Time Offset (V1.300 Time and Date)	0.1	●	●																																				●				
129038	AIS Class A Position Report (msg. 1,2,3)	-	●	●																										●												
129039	AIS Class B Position Report (msg. 18)	-	●	●																										●												
129040	AIS Class B Extended Position Report (msg. 19)	-	●	●																										●												
129041	AIS Aids to Navigation (AtoN) report (msg. 21)	-	●	●																										●												
129283	Cross Track Error	1	●	●	●																		●																	●			
129284	Navigation Data	1	●	●	●	4																	●																●				●	
129285	Route/WP Information	1	●	●	●	4																	●																				
129291	Set & Drift, Rapid Update	1	●	●																												●											
129539	GNSS DOPs	1	●	●					●		●																																
129540	GNSS Sats in view	1	●	●							●		●																															
129547	GNSS Pseudorange Error Statistics	-	●	●								●																																
129793	AIS Base Station (msg. 4)	-	●	●																										●												
129794	AIS Class A Static/Voyage Data (msg. 5)	-	●	●																										●												
129798	AIS SAR Aircraft Position Report (msg. 9)	-	●	●																										●												
129802	AIS Safety Related Broadcast Message (msg. 14)	-	●	●																										●												
129809	AIS Class B Static Data report: Name (msg. 24a)	-	●	●																										●												
129810	AIS Class B Static Data report: Static Data (msg. 24b)	-	●	●																										●												
130074	WP Name & Position: Waypoint List	-	●																								7										●						
130306	Wind Data	10	●	●															●	●																	●	●						
130310	Environment (deprecated)		6	●													5	●																					5					
130311	Environment (deprecated)		6	●													5	●																					5					
130312	Temperature (deprecated)		6	●													5	●																					5					
130313	Humidity	0.5	6	●													5																					5					
130314	Actual Pressure	0.5	6	●													5																					5					
130316	Temperature, extended range	0.5	6	●													5	●																					5					
130578	Vessel Speed Components	4	●	●																									●			●										
131071	Simrad TV80 Data (ShipModul Proprietary)	-	●	●																	●								●			●										

Notes

1 Magnetic variation only

2 Either XDR (default) or $PFEC,GPatt/GPhve are transmitted.

3 Either DPT or DBT is transmitted

4 Either BWC or BWR is transmitted

5 XDR is always transmitted, MDA is optional

6 By default, PGN's 130313, 130314 and 130316 are transmitted. If the NMEA 2000 Device Type of an NMEA 0183 input is set to "Weather Instrument (< V2)", then PGN's 130310, 130311 and 130312 are transmitted instead.

7 Conversion must be specifically enabled (TLL > WPL and > PGN 130074

8 HDM is only transmitted on Out2 if option NMEA 0183 V1.5 is enabled.

9 Conversion from NMEA 2000 to NMEA 0183 is immediate: the moment the PGN is received, the corresponding NMEA 0183 sentence is transmitted.