PGN and NMEA 0183 sentence conversion matrix

Version: 3.9.0

A number instead of a ● indicates a note

PGN	Description	Freq. (Hz)	TX	RX	APB	BWC	BWR	DBT	DPT	GGA	GLL	GSA	GSV	HDG	HDM	HDT	MDA	MTW	MWD	MWV	PSIMTV80	RMB	RMC	ROT	RPM	RSA	THS	VBW	VDM/O	VDR	VHW	VLW	VTG	VWR	VWT	WPL	WCV	XDR	XTE	ZDA	ZTG	PFEC,GPatt	PFEC,GPhve
		RX	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
		TX	●	●	●	●	●	●	●	●	●	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
			1	1	1	1	1	1	1	1	1	1	10		10	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)			●																																	●					
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			●																																	2					2
127257	Attitude		●	●																																	2				2	
127258	Magnetic variation	1	●	●										●									●																			
127488	Engine Parameters, Rapid Update			●																					●												●					
127489	Engine Parameters, Dynamic			●																																	●					
127505	Fluid Level			●																																	●					
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)			●																																				●			
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	4															●																●			●	
129285	Route/WP Information	1	●	●	●	4	4															●																				
129291	Set & Drift, Rapid Update	1	●	●																										●												
129539	GNSS DOPs	1	●	●						●		●																														
129540	GNSS Sats in view	1	●	●								●	●																													
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	-	●																																●						
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. When 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.