



National Marine Electronics Association

International Marine Electronics Association

Technical Bulletin

Technical Corrigendum TC# 2000 20150323

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NMEA Network Message Database Version 2.100 February 2015

PGN 130316

Introduction:

This Technical Corrigendum adds enhancements to PGN 130316, the default rate and editorial change to the PGN description and to Note 1 in the PGN description. These are highlighted in the PGN.

Text that no longer applies in **bold red** font **highlighted** and has a ~~red-strike-thru~~.
The new text are provided for content, with changes **highlight** and in a **bold font**.

Change summary

PGN 130316:

- Default rate is now 2000 ms
- Cycles per second is now 0.5

- See added description as highlighted and in bold in the PGN below
- Note 1 has been highlighted in the PGN below.

Added to PGN description:

Temperature instances shall be unique in the same PGNs transmitted by a device. Temperature instances shall not be globally unique on the network. Field programmability may be implemented through the use of PGN 126208, Write Fields Group Function.

Note 1: New text:

Values for field 2, Temperature Instance , shall be included when the Command Group Function PGN 126208 is used with this PGN. This value shall be interpreted as the temperature measurement or channel input for any commanded fields such as field 5

Temperature, Extended Range
PGN: 130316

Temperature, Extended Range

PGN: 130316

hex: 1FD0C

This parameter group is used to report Temperature measurements that are not included in parameter groups for a specific equipment type. For example, this parameter group would not be used to report Engine Temperature, which is already included in Engine Parameters, Dynamic (PGN 127489). The Sequence ID field may be used to synchronize the measurement reported by this parameter group within a related group of measurements. The Set Temperature field may be used to report a target temperature, or using the Command Group Function (PGN 126208) to set a target or control temperature.

This PGN performs the same function and replaces the Temperature parameter group Temperature (PGN 130312) for all new designs subsequent to version 1.301, and provides a wider temperature range data type for Actual Temperature to accommodate high temperature applications such as Exhaust Gas Temperature.

Temperature instances shall be unique in the same PGNs transmitted by a device. Temperature instances shall not be globally unique on the network. Field programmability may be implemented through the use of PGN 126208, Write Fields Group Function.

Note1: ~~Transmissions of this parameter group using 126208 command group function must include a value for field 2, Temperature Instance, which shall be interpreted as the temperature measurement or channel input that any remaining commanded fields apply to.~~

Note1: Values for field 2, Temperature Instance, shall be included when the Command Group Function PGN 126208 is used with this PGN. This value shall be interpreted as the temperature measurement or channel input for any commanded fields such as field 5

Field #	Field Name	Byte Field Size	Bit Field Size	Request Parameter	Command Parameter
Single Frame: Yes Priority Default: 5 Default Update Rate: 2000ms milliseconds Frequency: NA .05 cycles per Destination: Global Query Support: Optional Command Support: Optional ACK Rqmnts: None					
Original Reference ID # 205					
1	Sequence ID	1		Optional	Optional
DD056	Sequence ID	An upward counting number used to tie related information together between different PGNs . For example, the SID would be used to tie together the COG, SOG and RAIM values to a given position. 255=no valid position fix to tie it to. Range 0 to 252 for valid position fixes.			
DF53	Integer, 8 bit unsigned	uint8	Range: 0 to 252	Resolution: 1 bit	Unit-less number
2	Temperature Instance	8		Optional	Note 1
DD128	Generic instance	For Engines: 0 = Instance 0; 0 = Single Engine or Dual Engine Port 1 = Instance 1; 1 = Dual Engine StarBoard (for Multiple Engines, Instances will start from Bow, Port (0) to Stern, Starboard (n)) n = Instance n, where n < 253 253 = Reserved 254 = Error; 255 = Not available			
DF52	Bit field	bit(n)	Range: Variable	Resolution: 1	Used to construct bit fields

If a Request Parameter or Command Parameter is supported on any other Data Field, you must also support the capability on this Data Field.

Temperature, Extended Range

PGN: 130316

3	Temperature Source	<i>Byte Field Size:</i>	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i> 8	<i>Command Parameter:</i>	Optional
	DD291 Temperature Source			
		00 = Sea Temperature 01 = Outside Temperature 02 = Inside Temperature 03 = Engine Room Temperature 04 = Main Cabin Temperature 05 = Live Well Temperature 06 = Bait Well Temperature 07 = Refrigeration Temperature 08 = Heating System Temperature 09 = Dew Point Temperature 10 = Wind Chill Temperature, Apparent 11 = Wind Chill Temperature, Theoretical 12 = Heat Index Temperature 13 = Freezer Temperature 14 = Exhaust Gas Temperature 15 through 128 Reserved 129 through 252 Generic Temperature Sources other than those defined 253 = Not Supported 254 = Error 255 = No Change / Data Not Available		
	DF52 Bit field	bit(n) <i>Range:</i> Variable	<i>Resolution:</i> 1	Used to construct bit fields

4	Actual Temperature	<i>Byte Field Size:</i> 3	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i>	<i>Command Parameter:</i>	Optional
	DD314 Temperature, extended range and precision			
	DF105 Temperature, extended range and precision	uint24 <i>Range:</i> 0 to 16,777.212 deg K	<i>Resolution:</i> 0.001 deg K	

5	Set Temperature	<i>Byte Field Size:</i> 2	<i>Request Parameter</i>	Optional
		<i>Bit Field Size:</i>	<i>Command Parameter:</i>	Optional
	DD130 Temperature, high			
	DF38 Temperature, high	uint16 <i>Range:</i> 0 to 6,553.2 deg K	<i>Resolution:</i> 1x10E-1 deg K	