AEMnet
29 bit, 500 kBit/sec, 8 data bytes per message unless otherwise specified
Multi-byte data is packed big endian (Motorola format, most significant byte transmitted first)
Bits numbered MSB first, with the MSB = bit7, LSB = bit0

Both unit types (SI & US) should be made available to the customer whenever possible!

Message ID: 0x01F0A000
Sources: Infinity EMS (30-71XX)
AEM S2 & EMS-4 (30-6XXX)
20ms continuous (50hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc AEM EMS-V2 SI 20161128.dbc AEM EMS-4 SI 20161128.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc AEM EMS-V2 US 20161128.dbc AEM EMS-4 US 20161128.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Engine Speed	16 bit unsigned	0.39063 rpm/bit	0	0 to 25,599.94 RPM	angular_speed:rpm	<==	<==	<==	<==
2-3			Engine Load (Deprecated in Infinity) Use "MAP" in 0x01F0A004 Instead	16 bit unsigned	0.0015259 %/bit	0	0 to 99.998 %	fraction:%	<==	<==	<==	<==
4-5			Throttle	16 bit unsigned	0.0015259 %/bit	0	0 to 99.998 %	fraction:%	<==	<==	<==	<==
6			Intake Air Temp	8 bit signed, 2's comp	1 Deg C/bit	0	-128 to 127 C	temperature:C	1.8 Deg F/bit	32	-198.4 to 260.6 F	temperature:F
7			Coolant Temp	8 bit signed, 2's comp	1 Deg C/bit	0	-128 to 127 C	temperature:C	1.8 Deg F/bit	32	-198.4 to 260.6 F	temperature:F

Message ID: 0x01F0A001
Sources: AEM S2 & EMS-4 (30-6XXX)
20ms continuous (50hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC File*:		AEM EMS-V2 SI 20161128.dbc AEM EMS-4 SI 20161128.dbc		Contained in CAN DBC File*:		AEM EMS-V2 US 20161128.dbc AEM EMS-4 US 20161128.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			ADCR11	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==
2-3			ADCR13	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==
4-5			ADCR14	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==
6-7			ADCR17	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==

Message ID: 0x01F0A002
Sources: AEM S2 & EMS-4 (30-6XXX)
20ms continuous (50hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC File*:		AEM EMS-V2 SI 20161128.dbc AEM EMS-4 SI 20161128.dbc		Contained in CAN DBC File*:		AEM EMS-V2 US 20161128.dbc AEM EMS-4 US 20161128.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			ADCR18	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==
2-3			ADCR15	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==
4-5			ADCR16	16 bit unsigned	0.00007782 V/bit	0	0 to 5.0999 V	voltage:V	<==	<==	<==	<==
6-7			ADCR08	16 bit unsigned	0.000326 V/bit	0	0 to 21.3644 V	voltage:V	<==	<==	<==	<==

Message ID: 0x01F0A003
Sources: Infinity EMS (30-71XX)
AEM S2 & EMS-4 (30-6XXX)
20ms continuous (50hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc AEM EMS-V2 SI 20161128.dbc AEM EMS-4 SI 20161128.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc AEM EMS-V2 US 20161128.dbc AEM EMS-4 US 20161128.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			Lambda #1	8 bit unsigned	0.00390625 Lambda/bit	0.5	0.5 to 1.496 Lambda	afr:LA	0.057227 AFR/bit	7.325	7.325 to 21.916 AFR	afr:AFR Gasoline
1			Lambda #2	8 bit unsigned	0.00390625 Lambda/bit	0.5	0.5 to 1.496 Lambda	afr:LA	0.057227 AFR/bit	7.325	7.325 to 21.916 AFR	afr:AFR Gasoline
2-3			Vehicle Speed	16 bit unsigned	0.0062865 kph/bit	0	0 to 411.986 km/h	speed:km/h	0.00390625 mph/bit	0	0 to 255.996 MPH	speed:mph
4			Gear Calculated	8 bit unsigned	1	0	0 to 255	unitless:	<==	<==	<==	<==
5			Ign Timing	8 bit unsigned	.35156 Deg/bit	-17	-17 to 72.65 Deg	angle:deg	<==	<==	<==	<==
6-7			Battery Volts	16 bit unsigned	0.0002455 V/bit	0	0 to 16.089 Volts	voltage:V	<==	<==	<==	<==

Message ID: 0x01F0A004
Sources: Infinity EMS (30-71XX) V96.1+
20ms continuous (50hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			MAP	16 bit unsigned	0.1 kPa/bit	0	0 to 6,553.5 kPa	pressure:kPa	0.014504 PSI/bit	-14.6960	-14.696 to 935.81 PSIg	pressure_gauge:psi(g)
2			VE	8 bit unsigned	1 %/bit	0	0 to 255 %	fraction:%	<==	<==	<==	<==
3			FuelPressure	8 bit unsigned	0.040 bar/bit	0	0 to 10.2 Bar	pressure_gauge:bar(g)	0.580151 PSIg/bit	0	0 to 147.939 PSIg	pressure_gauge:psi(g)
4			OilPressure	8 bit unsigned	0.040 bar/bit	0	0 to 10.2 Bar	pressure_gauge:bar(g)	0.580151 PSIg/bit	0	0 to 147.939 PSIg	pressure_gauge:psi(g)
5			LambdaTarget	8 bit unsigned	0.00390625 Lambda/bit	0.5	0.5 to 1.496 Lambda	afr:LA	0.057227 AFR/bit	7.325	7.325 to 21.916 AFR	afr:AFR Gasoline
6	0 (lsb)	0	FuelPump	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Fan 1	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Fan 2	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	N2O Active	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	O2FB Active	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	EngineProtectOut	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	MILOutput	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Lean Protect	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
7	0 (lsb)	0	Oil Press Protect	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	2 Step Fuel	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	2 Step Spark	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Sync State	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	A/C On	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	BoostCut	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CoolantProtect	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	DBZ Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

Message ID: 0x01F0A005
Sources: Infinity EMS (30-71XX) V96.1+
20ms continuous (50hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			LaunchRampTime [ms]	16 bit unsigned	10 mS/bit	0	0 to 655,350 mS	time:ms	<==	<==	<==	<==
2-3			MassAirflow [gms/s]	16 bit unsigned	.05 [gms/s] / bit	0	0 to 3,276.75 gms/s	mass_flow:g/s	.00661387 [lb/min]/bit	0	0 to 433.440 lb/min	mass_flow:lb/min
4-5			MassAirflow [gms/rev]	16 bit unsigned	.0005 [gms/rev] / bit	0	0 to 32.7675 gms/rev	unitless:	.0000661387 [lb/rev]/bit	0	0 to 4.3344 lb/rev	unitless:
6			Clutch Pressure	8 bit unsigned	0.34473B Bar/bit	0	0 to 87.91 Bar	pressure_gauge:bar(g)	5 PSIg/bit	0	0 to 1275 PSIg	pressure_gauge:psi(g)
7	0 (lsb)	0	Brake Sw	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Clutch Sw	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Shift Sw	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Staged Sw	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	----	Boolean	----	----	----	----	----	----	----	----
	5	32	----	Boolean	----	----	----	----	----	----	----	----
	6	64	----	Boolean	----	----	----	----	----	----	----	----
	7 (msb)	128	----	Boolean	----	----	----	----	----	----	----	----

Message ID: 0x01F0A006
Sources: Infinity EMS (30-71XX) V96.1+
40ms continuous (25hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc	
							SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			Inj1Pulse	8 bit unsigned	0.1 mS/bit	0	0 to 25.5 mS	time:ms	<==	<==	<==	<==
1			Inj1LambdaFB	8 bit unsigned	0.5 %/bit	-64.00	-64 to 63.5 %	fraction:%	<==	<==	<==	<==
2			PrimaryInjDuty [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
3			Mode Sw	8 bit unsigned	1 /bit	0	0 - 255	unitless:	<==	<==	<==	<==
4			Water Pressure	8 bit unsigned	0.040 bar/bit	0	0 to 10.2 Bar	pressure_gauge:bar(g)	0.580151 PSIg/bit	0	0 to 147.939 PSIg	pressure_gauge:psi(g)
5			Pan Pressure	8 bit unsigned	1 kPa/bit	0	0 to 255 kPa	pressure:kPa	0.14504 PSI/bit	-14.696	-14.696 to 22.289 PSIg	pressure_gauge:psi(g)
6-7			Est Torque	16 bit unsigned	0.1 Nm/bit	-3276.8	-3276.8 to 3276.7 Nm	torque:N.m	0.0737562 ft-lbs/bit	-2416.8432	+/- 2416.77 ft-lbs	torque:ft.lb

Message ID: 0x01F0A007
Sources: Infinity EMS (30-71XX) V96.1+
40ms continuous (25hz)

Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc SI Units (C / kPa / kph / Lambda)	Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc US Units (F / PSI / MPH / AFR)

Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			InjectorProbability [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
1			SparkProbability [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
2			LambdaTrim_Knock	8 bit unsigned	0.001 Lambda/bit	0	0 to 0.255 Lambda	afr:LA	0.01465 AFR/bit	0	0 to 3.73575 AFR	afr:AFR Gasoline
3			Baro Press	8 bit unsigned	0.25 kPa/bit	50	50 to 113.75 kPa	pressure:kPa	0.073825 inHg/bit	14.76	14.76 to 33.5903 inHg	pressure:inHg
4			FlexContent	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
5			Airbox Temp	8 bit unsigned	1 Deg C/bit	-50.00	-50 to 205 C	temperature:C	1.8 Deg F/bit	-58	-58 to 401 F	temperature:F
6			Oil Temp	8 bit unsigned	1 Deg C/bit	-50.00	-50 to 205 C	temperature:C	1.8 Deg F/bit	-58	-58 to 401 F	temperature:F
7	0 (lsb)	0	LaunchTimerArmed	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	ECU Logging Active	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	ModeSelect_Ign	2 bit unsigned	####00## = Mode 1, ####01## = Mode 2 ####10## = Mode 3, ####11## = Mode 4			unitless:	<==	<==	<==	<==
	3	8										
	4	16	ModeSelect_Lambda	2 bit unsigned	##00#### = Mode 1, ##01#### = Mode 2 ##10#### = Mode 3, ##11#### = Mode 4			unitless:	<==	<==	<==	<==
	5	32										
	6	64	ModeSelect_DBW	1 bit unsigned	#0###### = Mode 1, #1###### = Mode 2			unitless:	<==	<==	<==	<==
	7 (msb)	128	VTEC	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

Message ID: 0x01F0A008
Sources: Infinity EMS (30-71XX) V96.1+
200ms continuous (5hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0			Trans Temp	8 bit unsigned	1 Deg C/bit	-50.00	-50 to 205 C	temperature:C	1.8 Deg F/bit	-58	-58 to 401 F	temperature:F
1-2			SparkCut [RPM]	16 bit unsigned	0.39063 rpm/bit	0	0 to 25,599.94 RPM	angular_speed:rpm	<==	<==	<==	<==
3-4			FuelCut [RPM]	16 bit unsigned	0.39063 rpm/bit	0	0 to 25,599.94 RPM	angular_speed:rpm	<==	<==	<==	<==
5			2StepTargetFuel [RPM]	8 bit unsigned	100 rpm/bit	0	0 to 25,500 RPM	angular_speed:rpm	<==	<==	<==	<==
6			2StepTargetSpark [RPM]	8 bit unsigned	100 rpm/bit	0	0 to 25,500 RPM	angular_speed:rpm	<==	<==	<==	<==
7	0 (lsb)	0	ErrorThrottle	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	ErrorCoolantTemp	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	ErrorFuelPressure	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	ErrorOilPressure	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	ErrorEBP	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	ErrorMAP	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	ErrorAirTemp	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	ErrorBaro	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

Message ID: 0x01F0A009
Sources: Infinity EMS (30-71XX) V96.1+
40ms continuous (25hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0-1			Brake Pressure	16 bit unsigned	0.006895 Bar/bit	0	0 to 451.85 Bar	pressure_gauge:bar(g)	0.1 PSIg/bit	0	0 to 6553.5 PSIg	pressure_gauge:psi(g)
2-3			Steering Angle	16 bit unsigned	0.1 degree/bit	-3276.8	-3276.8 to 3276.7 deg	angle:deg	<==	<==	<==	<==
4-5			Launch Boost Target	16 bit unsigned	0.1 kPa/bit	0	0 to 6,553.5 kPa	pressure:kPa	0.014504 PSI/bit	-14.6960	-14.696 to 935.81 PSIg	pressure_gauge:psi(g)
6			----	----	----	----	----	----	<==	<==	<==	<==
7			----	----	----	----	----	----	<==	<==	<==	<==

Message ID: 0x01F0A00A
Sources: Infinity EMS (30-71XX) V96.1+ w/VVTi
40ms continuous (25hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0			VVC1A_Cam_Timing	8 bit unsigned	0.5 deg/bit	-50	-50 to 77.5 deg	angle:deg	<==	<==	<==	<==
1			VVC2A_Cam_Timing	8 bit unsigned	0.5 deg/bit	-50	-50 to 77.5 deg	angle:deg	<==	<==	<==	<==
2			VVC1B_Cam_Timing	8 bit unsigned	0.5 deg/bit	-50	-50 to 77.5 deg	angle:deg	<==	<==	<==	<==
3			VVC2B_Cam_Timing	8 bit unsigned	0.5 deg/bit	-50	-50 to 77.5 deg	angle:deg	<==	<==	<==	<==
4			VVC1 Target [deg]	8 bit unsigned	0.5 deg/bit	-50	-50 to 77.5 deg	angle:deg	<==	<==	<==	<==
5			VVC2 Target [deg]	8 bit unsigned	0.5 deg/bit	-50	-50 to 77.5 deg	angle:deg	<==	<==	<==	<==
6			----	----	----	----	----	----	----	----	----	----
7			----	----	----	----	----	----	----	----	----	----

Message ID: 0x01F0A00B
Sources: Infinity EMS (30-71XX) V96.1+ w/Boost
40ms continuous (25hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0-1			BoostTarget	16 bit unsigned	0.1 kPa/bit	0	0 to 6,553.5 kPa	pressure:kPa	0.014504 PSI/bit	-14.6960	-14.696 to 935.81 PSIg	pressure_gauge:psi(g)
2-3			ChargeOutPress	16 bit unsigned	0.1 kPa/bit	0	0 to 6,553.5 kPa	pressure:kPa	0.014504 PSI/bit	-14.6960	-14.696 to 935.81 PSIg	pressure_gauge:psi(g)
4			BoostControl [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
5			BoostErr_PID [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
6			ChargeOutTemp	8 bit unsigned	1 Deg C/bit	-50.00	-50 to 205 C	temperature:C	1.8 Deg F/bit	-58	-58 to 401 F	
7			TurboSpeed [RPM]	8 bit unsigned	500 rpm/bit	0	0 to 127,500 RPM	angular_speed:rpm	<==	<==	<==	<==

Message ID: 0x01F0A00D
Sources: Infinity EMS (30-71XX) V96.1+ w/DBW
40ms continuous (25hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0			DBW_APP1	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
1			DBW_Target	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
2			DBW1_TPSA	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
3			DBW2_TPSA	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
4			----	----	----	----	----	----	----	----	----	----
5	0 (lsb)	0	DBW_Error_APP_Corr	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	DBW_Error_APP1_Range	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	DBW_Error_APP2_Range	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	DBW_Error_BTO	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	----	Boolean	----	----	----	----	----	----	----	----
	5	32	----	Boolean	----	----	----	----	----	----	----	----
	6	64	----	Boolean	----	----	----	----	----	----	----	----
	7 (msb)	128	----	Boolean	----	----	----	----	----	----	----	----
6	0 (lsb)	0	DBW1_Error_Fatal	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	DBW1_Error_TPSA_Range	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	DBW1_Error_TPSB_Range	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	DBW1_Error_Tracking	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	DBW1_Error_Current	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	DBW1_Error_TPS_Corr	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	----	Boolean	----	----	----	----	----	----	----	----
	7 (msb)	128	----	Boolean	----	----	----	----	----	----	----	----
7	0 (lsb)	0	DBW2_Error_Fatal	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	DBW2_Error_TPSA_Range	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	DBW2_Error_TPSB_Range	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	DBW2_Error_Tracking	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	DBW2_Error_Current	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	DBW2_Error_TPS_Corr	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	----	Boolean	----	----	----	----	----	----	----	----
	7 (msb)	128	----	Boolean	----	----	----	----	----	----	----	----

Message ID: 0x01F0A010
Sources: Infinity EMS (30-71XX) V96.1+ w/TC
20ms continuous (50hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0			TC_FuelCut [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
1			TC_SparkCut [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
2			TC_Retard [degBTDC]	8 bit unsigned	0.25 deg/bit	0	0 to 63.75 deg	angle:deg	<==	<==	<==	<==
3			TC_TqReduceDBW [%]	8 bit unsigned	0.392157 %/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
4			TC_Mode_Sw	8 bit unsigned	1 /bit	0	0 - 255	unitless:	<==	<==	<==	<==
5			3StepTargetFuel [RPM]	8 bit unsigned	100 rpm/bit	0	0 to 25,500 RPM	angular_speed:rpm	<==	<==	<==	<==
6			3StepTargetSpark [RPM]	8 bit unsigned	100 rpm/bit	0	0 to 25,500 RPM	angular_speed:rpm	<==	<==	<==	<==
7	0 (lsb)	0	3 Step Fuel	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	3 Step Spark	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	3 Step Sw	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	----	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	----	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	----	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	----	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	----	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

Message ID: 0x01F0A011
Sources: Infinity EMS (30-71XX) V96.1+ w/TC
20ms continuous (50hz)

			Contained in CAN DBC Files*:	AEM INFINITY SI 20161021.dbc			Contained in CAN DBC Files*:	AEM Infinity US 20161025.dbc		
				SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)		

Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			DLWheelSpeed	16 bit unsigned	0.02 kph/bit	0	0 to 1310.7 km/h	speed:km/h	0.0124274 mph/bit	0	0 to 814.431 MPH	speed:mph
2-3			DRWheelSpeed	16 bit unsigned	0.02 kph/bit	0	0 to 1310.7 km/h	speed:km/h	0.0124274 mph/bit	0	0 to 814.431 MPH	speed:mph
4-5			NLWheelSpeed	16 bit unsigned	0.02 kph/bit	0	0 to 1310.7 km/h	speed:km/h	0.0124274 mph/bit	0	0 to 814.431 MPH	speed:mph
6-7			NRWheelSpeed	16 bit unsigned	0.02 kph/bit	0	0 to 1310.7 km/h	speed:km/h	0.0124274 mph/bit	0	0 to 814.431 MPH	speed:mph

Message ID: 0x01F0A012
Sources: Infinity EMS (30-71XX) V96.1+ w/TC
20ms continuous (50hz)

Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			TC_SlipTarget	16 bit unsigned	0.02 kph/bit	0	0 to 1310.7 km/h	speed:km/h	0.0124274 mph/bit	0	0 to 814.431 MPH	speed:mph
2-3			TC_SlipMeasured	16 bit unsigned	0.02 kph/bit	0	0 to 1310.7 km/h	speed:km/h	0.0124274 mph/bit	0	0 to 814.431 MPH	speed:mph
4-5			TC_TqReduceReq	16 bit unsigned	0.25/bit	0	0 to 16,383.75	unitless:	<==	<==	<==	<==
6			TC_SlipTargetTrim	8 bit unsigned	1.609 kph/bit	-80.45	-80.45 to 329.845	speed:km/h	1 mph/bit	-50	-50 to 205 MPH	speed:mph
7				----	----	----	----			----	----	

Message ID: 0x01F0A020
Sources: Infinity EMS (30-71XX) V96.1+ w/Knock
20ms continuous (50hz)

Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			KnockFB_Cyl1	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
1			KnockFB_Cyl2	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
2			KnockFB_Cyl3	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
3			KnockFB_Cyl4	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
4			KnockFB_Cyl5	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
5			KnockFB_Cyl6	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
6			KnockFB_Cyl7	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
7			KnockFB_Cyl8	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==

Message ID: 0x01F0A021
Sources: Infinity EMS (30-71XX) V96.1+ w/Knock
20ms continuous (50hz)

Contained in CAN DBC Files*:		AEM INFINITY SI 20161021.dbc		Contained in CAN DBC Files*:		AEM Infinity US 20161025.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			KnockFB_Cyl9	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
1			KnockFB_Cyl10	8 bit unsigned	- 0.1 degree/bit	0	0 to -25.5 deg	angle:deg	<==	<==	<==	<==
2			----	----	----	----	----	----	----	----	----	----
3			----	----	----	----	----	----	----	----	----	----
4			----	----	----	----	----	----	----	----	----	----
5			----	----	----	----	----	----	----	----	----	----
6			----	----	----	----	----	----	----	----	----	----
7			----	----	----	----	----	----	----	----	----	----

Message ID: 0x0000001F
Sources: AEM 4 Ch UEGO (30-2340) MODE 1
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 1	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 2	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Lambda 3	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6-7			Lambda 4	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline

Message ID: 0x00000020
Sources: AEM 4 Ch UEGO (30-2340) MODE 2
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 5	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 6	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Lambda 7	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6-7			Lambda 8	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline

Message ID: 0x00000021
Sources: AEM 4 Ch UEGO (30-2340) MODE 3
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 1	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 3	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Lambda 5	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6-7			Lambda 7	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline

Message ID: 0x00000022
Sources: AEM 4 Ch UEGO (30-2340) MODE 4
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 2	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 4	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Lambda 6	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6-7			Lambda 8	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline

Message ID: 0x00000023
Sources: AEM 4 Ch UEGO (30-2340) MODE 5
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 9	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 10	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Lambda 11	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6-7			Lambda 12	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline

Message ID: 0x00000024
Sources: AEM 4 Ch UEGO (30-2340) MODE 6
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc	
		SI Units (C / kPa / kph / Lambda)				US Units (F / PSI / MPH / AFR)	
Byte	Bit	Bitmask	Label	Data Type	Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 1	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 2	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline

4-5			Lambda 3	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6			---	---	---	---	---	---	---	---	---	---
7			---	---	---	---	---	---	---	---	---	---

Message ID: 0x00000025
Sources: AEM 4 Ch UEGO (30-2340) MODE 7
30-2340N same w/11 bit & 1mBit/sec
10ms continuous (100hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda 4	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda 5	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Lambda 6	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
6			---	---	---	---	---	---	---	---	---	---
7			---	---	---	---	---	---	---	---	---	---

Message ID: 0x00000026
Sources: AEM Wideband Failsafe (30-4900)
10ms continuous (100hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Pressure	16 bit unsigned	0.00689476 kPa/bit	-2.09636	-2.09636 to 449.752 kPa	pressure:kPa	.001 PSI/bit	-15	-15 to 50.535 PSIg	pressure_gauge:psi(g)
4-5			RPM	16 bit unsigned	.39063 RPM/bit	0	0 to 25,600 RPM	angular_speed:rpm	<==	<==	<==	<==
6	0 (lsb)	0	AFR Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR CJ125 Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR Sensor Heating Up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR Low Voltage	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
7	0 (lsb)	0	Alarm Status	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Alarm Source	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Alarm Source	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Alarm Source	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	---	Boolean	---	---	---	----	----	----	----	----
	5	32	---	Boolean	---	---	---	----	----	----	----	----
	6	64	---	Boolean	---	---	---	----	----	----	----	----
	7 (msb)	128	---	Boolean	---	---	---	----	----	----	----	----

Message ID: 0x00000027
Sources: AEM Wideband Failsafe (30-4900)
10ms continuous (100hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda Upper Limit	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda Lower Limit	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Alarm Delay Limit	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==
6-7			Alarm Delay Counter	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==

Message ID: 0x00000028
Sources: AEM Wideband Failsafe (30-4900)
10ms (100hz) only in alarm mode

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Alarm Lambda	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Alarm Pressure	16 bit unsigned	0.00689476 kPa/bit	-2.09636	-2.09636 to 449.752 kPa	pressure:kPa	.001 PSI/bit	-15	-15 to 50.535 PSIg	pressure_gauge:psi(g)
4-5			Alarm Reset Limit	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==
6-7			Alarm Reset Counter	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==

Message ID: 0x000001AF
Sources: AEM 4 Ch UEGO (30-2340) MODE 1
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0	0 (lsb)	0	AFR 1 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 1 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 1 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 1 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 1 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 1 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 1 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 1 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
1	0 (lsb)	0	AFR 2 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 2 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 2 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 2 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 2 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 2 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 2 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 2 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 3 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 3 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 3 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 3 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 3 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 3 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 3 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 3 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3	0 (lsb)	0	AFR 4 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 4 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 4 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 4 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 4 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 4 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 4 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 4 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	Sensor 4 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Sensor 3 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 2 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 1 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 1	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x000001B0
Sources: AEM 4 Ch UEGO (30-2340) MODE 2
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
	0 (lsb)	0	AFR 5 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

0	1	2	AFR 5 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 5 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 5 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 5 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 5 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 5 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 5 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
1	0 (lsb)	0	AFR 6 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 6 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 6 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 6 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 6 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 6 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 6 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 6 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 7 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 7 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 7 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 7 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 7 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 7 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 7 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 7 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3	0 (lsb)	0	AFR 8 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 8 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 8 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 8 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 8 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 8 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 8 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 8 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	Sensor 8 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Sensor 7 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 6 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 5 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 2	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x00000181
Sources: AEM 4 Ch UEGO (30-2340) MODE 3
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

					Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0	0 (lsb)	0	AFR 1 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 1 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 1 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 1 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 1 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 1 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 1 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 1 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
1	0 (lsb)	0	AFR 3 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 3 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 3 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 3 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 3 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 3 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 3 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 3 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 5 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 5 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 5 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 5 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 5 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 5 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 5 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 5 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3	0 (lsb)	0	AFR 7 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 7 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 7 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 7 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 7 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 7 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 7 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 7 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Reserved	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	Sensor 7 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Sensor 5 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 3 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 1 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 1	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x000001B2
Sources: AEM 4 Ch UEGO (30-2340) MODE 4
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

					Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0	0 (lsb)	0	AFR 2 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 2 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 2 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 2 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 2 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 2 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 2 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 2 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
1	0 (lsb)	0	AFR 4 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 4 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 4 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 4 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 4 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 4 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 4 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 4 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 6 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 6 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 6 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 6 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 6 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 6 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 6 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 6 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3	0 (lsb)	0	AFR 8 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 8 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 8 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 8 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 8 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 8 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

	6	64	AFR 8 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 8 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	---	Boolean	---	---	---	----	----	----	----	----
	1	2	---	Boolean	---	---	---	----	----	----	----	----
	2	4	---	Boolean	---	---	---	----	----	----	----	----
	3	8	---	Boolean	---	---	---	----	----	----	----	----
	4	16	Sensor 8 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Sensor 6 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 4 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 2 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 2	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x000001B3
Sources: AEM 4 Ch UEGO (30-2340) MODE 5
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

					Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0	0 (lsb)	0	AFR 9 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 9 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 9 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 9 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 9 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 9 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 9 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 9 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
1	0 (lsb)	0	AFR 10 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 10 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 10 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 10 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 10 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 10 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 10 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 10 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 11 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 11 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 11 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 11 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 11 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 11 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 11 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 11 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3	0 (lsb)	0	AFR 12 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 12 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 12 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 12 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 12 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 12 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 12 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 12 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	---	Boolean	---	---	---	----	----	----	----	----
	1	2	---	Boolean	---	---	---	----	----	----	----	----
	2	4	---	Boolean	---	---	---	----	----	----	----	----
	3	8	---	Boolean	---	---	---	----	----	----	----	----
	4	16	Sensor 12 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Sensor 11 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 10 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 9 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 2	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x000001B4
Sources: AEM 4 Ch UEGO (30-2340) MODE 6
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

					Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0	0 (lsb)	0	AFR 1 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 1 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 1 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 1 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 1 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 1 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 1 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 1 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
1	0 (lsb)	0	AFR 2 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 2 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 2 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 2 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 2 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 2 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 2 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 2 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 3 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 3 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 3 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 3 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 3 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 3 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 3 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 3 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3			---	Boolean	---	---	---	----	----	----	----	----
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	---	Boolean	---	---	---	----	----	----	----	----
	1	2	---	Boolean	---	---	---	----	----	----	----	----
	2	4	---	Boolean	---	---	---	----	----	----	----	----
	3	8	---	Boolean	---	---	---	----	----	----	----	----
	4	16	---	Boolean	---	---	---	----	----	----	----	----
	5	32	Sensor 3 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 2 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 1 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 1	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x000001B5
Sources: AEM 4 Ch UEGO (30-2340) MODE 7
30-2340N same w/11 bit & 1mBit/sec
40ms continuous (25hz)

					Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO SI 20161213.dbc AEM 30-2340N 4Ch UEGO SI 20161213.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM 30-2340 4Ch UEGO US 20161213.dbc AEM 30-2340N 4Ch UEGO US 20161213.dbc US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0	0 (lsb)	0	AFR 4 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 4 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 4 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 4 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 4 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 4 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 4 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 4 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

1	0 (lsb)	0	AFR 5 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 5 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 5 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 5 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 5 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 5 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 5 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 5 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
2	0 (lsb)	0	AFR 6 Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR 6 Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR 6 VM Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR 6 UN Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR 6 IP Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR 6 Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR 6 Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR 6 Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
3			---	Boolean	---	---	---	----	----	----	----	----
4	0 (lsb)	0	UEGO Low Voltage Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	EBP sensor ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	EBP sensor Error Low Volt	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	EBP sensor detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	CAN Config Mode	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
5	0 (lsb)	0	---	Boolean	---	---	---	----	----	----	----	----
	1	2	---	Boolean	---	---	---	----	----	----	----	----
	2	4	---	Boolean	---	---	---	----	----	----	----	----
	3	8	---	Boolean	---	---	---	----	----	----	----	----
	4	16	---	Boolean	---	---	---	----	----	----	----	----
	5	32	Sensor 6 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor 5 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor 4 Heating up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
6-7			Exhaust Pressure 2	16 bit unsigned	0.0689476 kPag/bit	0	0 to 4,518.48 kPag	pressure_gauge:kPa(g)	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x00000160
Sources: DynoShaft (P/N 30-485X)
65ms continuous (15hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		TBD SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		TBD US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Driveshaft RPM	16 bit unsigned	1 rpm/bit	0	0 to 65,535 RPM	angular_speed:rpm	<==	<==	<==	<==
2-3			Driveshaft Torque	16 bit signed	1.35582 Nm/bit	0	-44,426.1 to +44,426.Nm	torque:N.m	1 ft-lb/bit	0	-32,767 to +32,767 ft-lb	torque:ft.lb
4-5			Driveshaft Power	16 bit signed	0.7456999 kW/bit	0	-24,434.3 to +24,434.3 kW	power:kW	1 HP/bit	0	-32,767 to +32,767 HP	power:hp
6			Torque Fraction	8 bit unsigned	.00529616 Nm/bit	0	0 to 1.350445 Nm	torque:N.m	0.00390625 ft-lb/bit	0	0 to 0.99609375 ft-lb	torque:ft.lb
7			Power Fraction	8 bit unsigned	.00291289 kW/bit	0	0 to 0.742787 kW	power:kW	0.00390625 HP/bit	0	0 to 0.99609375 HP	power:hp

Message ID: 0x00000161
Sources: DynoShaft (P/N 30-485X)
65ms continuous (15hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		TBD SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		TBD US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Driveshaft RPM	16 bit unsigned	1 rpm/bit	0	0 to 65,535 RPM	angular_speed:rpm	<==	<==	<==	<==
2-3			Driveshaft Torque (Low Range)	16 bit signed	0.00529616 Nm/bit	0	-173.539 to +173.539 Nm	torque:N.m	0.00390625 ft-lb/bit	0	-127.996 to +127.996 ft-lb	torque:ft.lb
4-5			Driveshaft Power (Low Range)	16 bit signed	0.00291289 kW/bit	0	-95.4466 to +95.4466 kW	power:kW	0.00390625 HP/bit	0	-127.996 to +127.996 HP	power:hp
6			---	---	---	---	---	----	----	----	----	----
7			---	---	---	---	---	----	----	----	----	----

Message ID: 0x00000162
Sources: DynoShaft (P/N 30-485X)
65ms continuous (15hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		TBD SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		TBD US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			System Voltage	8 bit unsigned	0.1 V/bit	0	0 to 25.5 Volts	voltage:V	<==	<==	<==	<==
1			Tank Voltage	8 bit unsigned	0.1 V/bit	0	0 to 25.5 Volts	voltage:V	<==	<==	<==	<==
2			Sensor Voltage	8 bit unsigned	0.1 V/bit	0	0 to 25.5 Volts	voltage:V	<==	<==	<==	<==
3			Power Level	8 bit unsigned	1%/bit	0	0 to 100 %	fraction:%	<==	<==	<==	<==
4			Sensor Temp	8 bit unsigned	0.555556 Deg C/bit	0	-17.7778 to 123.889 C	temperature:C	1 Deg F/bit	0	0 to 255 F	temperature:F
5			Drive Frequency	8 bit unsigned	50 hz/bit	18,000	18,000 to 30,750 HZ	frequency:Hz	<==	<==	<==	<==
6			System Temp	8 bit unsigned	0.555556 Deg C/bit	10	10 to 151.667 C	temperature:C	1 Deg F/bit	50	50 to 305 F	temperature:F
7	0 (lsb)	0	---	Boolean	---	---	---	----	----	----	----	----
	1	2	Auto Zero Active	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	LED Aligned	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Got Good Calibration	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	Got Good Zero Offset	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Sensor Comms Active	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Heartbeat	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Sensor Firmware Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

Message IDs: 0x00000180 to 0x0000018F (up to 16)
Sources: AEM X-Series UEGO (30-03XX)
10ms continuous (100hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM X_SERIES UEGO-SI.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM X_SERIES UEGO-US.dbc US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:1A	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Oxygen	16 bit signed	0.001%/bit	0	-32.768% to 32.767%	fraction:%	<==	<==	<==	<==
4			System Volts	8 bit unsigned	0.1 V/bit	0	0 to 25.5 Volts	voltage:V	<==	<==	<==	<==
5			Heater Volts	8 bit unsigned	0.1 V/bit	0	0 to 25.5 Volts	voltage:V	<==	<==	<==	<==
6	0 (lsb)	0	Bosch LSU4.2 Sensor Detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Bosch LSU4.9 Sensor Detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	NTK LiH# Sensor Detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	NTK LHA Sensor Detected	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	Heater PID locked	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	Using Free-Air Cal	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Free-Air Cal required	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Lambda Data Valid	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
7	0 (lsb)	0	Sensor State	5 bit unsigned	0=Reset, 1=Warm Up, 2=Stabilize, 3=Read Nernst Pump, 4=Equalize, 5=Read Rcal, 6=Run, 7=Overheat, 8=Overcool, 9=Heater Short, 10=Heater Open, 11=Start FAC, 12=FAC, 13=Detect Sensor, 14=Read Junct, 15=Evap Startup, 16=Sensor Type, 17=Prepare to Run, 18=Sensor Save, 19=Need FAC, 20=Error			unitless:	<==	<==	<==	<==
	1	2										
	2	4										
	3	8										
	4	16										
	5	32	---	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	Sensor Fault	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	Fatal Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

Message ID: 0x000A0000
Sources: AEM GPS Gauge (P/N 30-0313)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM GPS GAUGE 30-0313-SI.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM GPS GAUGE 30-0313-US.dbc US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-3			GPS Latitude	32 bit float	Degrees reference WGS-84 datum North is positive	0	+90.00 (north) to -90.00 (south) Degrees	angle:deg	<==	<==	<==	<==
4-7			GPS Longitude	32 bit float	Degreesreference WGS-84 datum East is positive	0	+180.00 (east) to -180.00 (west) Degrees	angle:deg	<==	<==	<==	<==

Message ID: 0x000A0001
Sources: AEM GPS Gauge (P/N 30-0313)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:		AEM GPS GAUGE 30-0313-SI.dbc SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		AEM GPS GAUGE 30-0313-US.dbc US Units (F / PSI / MPH / AFR)	
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			GPS Speed	16 bit unsigned	0.01609344 kph/bit	0	0 to 1054.684 kph	speed:km/h	0.01 mph/bit	0	0 to 655.35 MPH	speed:mph
2-3			GPS Altitude	16 bit signed	0.3048 meter/bit	0	-9,987.7 to 9,987.4 meters	distance:m	1 ft/bit	0	-32,768 to 32,767 Feet	distance:ft
4-5			GPS True Course	16 bit unsigned	0.01 deg/bit	0	0 to 655.35 degrees	angle:deg	<==	<==	<==	<==
6			GPS Satellites in Use	8 bit unsigned	1	0	0 to 255	unitless:	<==	<==	<==	<==
7			GPS Valid	8 bit unsigned	0 = N/G, 1 = OK	0	0 to 255	unitless:	<==	<==	<==	<==

Message ID: 0x000A0301
Sources: AEM Pressure Gauge 100psig (30-0301)

					Contained in CAN DBC Files*:		TBD		Contained in CAN DBC Files*:		TBD	

50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	SI Units (C / kPa / kph / Lambda)			US Units (F / PSI / MPH / AFR)			
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Pressure	16 bit unsigned	0.01 bar/bit	0	0 to 655.35 bar	pressure:bar	0.1450377 PSIg/bit	0	0 to 9502.575 PSIg	pressure_gauge:psi(g)

Message ID: 0x000A0302
Sources: AEM Temperature Gauge 300F (30-0302)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Temperature	16 bit unsigned	1 degC/bit	0	0 to 65535 degC	temperature:C	1.8 degF/bit	32	0 to 117995 degF	temperature:F

Message ID: 0x000A0305
Sources: AEM EGT Gauge 1800F (30-0305)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Temperature	16 bit unsigned	1 degC/bit	0	0 to 65535 degC	temperature:C	1.8 degF/bit	32	0 to 117995 degF	temperature:F

Message ID: 0x000A0306
Sources: AEM Boost Gauge 50psia (30-0306)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Pressure	16 bit unsigned	0.01 bar/bit	0	0 to 655.35 bar	pressure:bar	0.1450377 PSIg/bit	0	0 to 9502.575 PSIg	pressure_gauge:psi(g)

Message ID: 0x000A0307
Sources: AEM Pressure Gauge 150psig (30-0307)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Pressure	16 bit unsigned	0.01 bar/bit	0	0 to 655.35 bar	pressure:bar	0.1450377 PSIg/bit	0	0 to 9502.575 PSIg	pressure_gauge:psi(g)

Message ID: 0x000A0308
Sources: AEM Pressure Gauge 75psia (30-0308)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Pressure	16 bit unsigned	0.01 bar/bit	0	0 to 655.35 bar	pressure:bar	0.1450377 PSIg/bit	0	0 to 9502.575 PSIg	pressure_gauge:psi(g)

Message ID: 0x000A0309
Sources: AEM Pressure Gauge 15psig (30-0309)
50ms continuous (20hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Pressure	16 bit unsigned	0.0006894757 bar/bit	0	0 to 45.184 bar	pressure:bar	.01 psig/bit	0	0 to 655.35 psig	pressure_gauge:psi(g)

Message ID: 0x000A0000
Sources: AEM Vehicle Dynamics Module (30-2203)
100ms continuous (10hz)

Byte	Bit	Bitmask	DBC Label	Data Type	Contained in CAN DBC Files*:	AEM VDM 30-2203 SI 20161008.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM VDM 30-2203 US 20161008.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-3			GPS_Latitude	32 bit float	Degrees reference WGS-84 datum North is positive	0	+90.00 (north) to -90.00 (south) Degrees	angle:deg	<==	<==	<==	<==
4-7			GPS_Longitude	32 bit float	Degreesreference WGS-84 datum East is positive	0	+180.00 (east) to -180.00 (west) Degrees	angle:deg	<==	<==	<==	<==

Message ID: 0x000A0001
Sources: AEM Vehicle Dynamics Module (30-2203)
100ms continuous (10hz)

Byte	Bit	Bitmask	DBC Label	Data Type	Contained in CAN DBC Files*:	AEM VDM 30-2203 SI 20161008.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM VDM 30-2203 US 20161008.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			GPS_Speed	16 bit unsigned	0.01609344 kph/bit	0	0 to 1054.684 kph	speed:km/h	0.01 mph/bit	0	0 to 655.35 MPH	speed:mph
2-3			GPS_Altitude	16 bit signed	0.3048 meter/bit	0	-9,987.7 to 9,987.4 meters	distance:m	1 ft/bit	0	-32,768 to 32,767 Feet	distance:ft
4-5			GPS_Course	16 bit unsigned	0.01 deg/bit	0	0 to 655.35 degrees	angle:deg	<==	<==	<==	<==
6			GPS_Satellite_Count	8 bit unsigned	1	0	0 to 255	unitless:	<==	<==	<==	<==
7			GPS_Valid	8 bit unsigned	1	0	0 to 255	unitless:	<==	<==	<==	<==

Message ID: 0x000A0002
Sources: AEM Vehicle Dynamics Module (30-2203)
200ms continuous (5hz)

Byte	Bit	Bitmask	DBC Label	Data Type	Contained in CAN DBC Files*:	AEM VDM 30-2203 SI 20161008.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM VDM 30-2203 US 20161008.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0			GPS_Valid	8 bit unsigned	0 = N/G, 1 = OK	0	0-255	unitless:	<==	<==	<==	<==
1			GPS_Year	8 bit unsigned	1	2000	2000-2255 Years UTC	unitless:	<==	<==	<==	<==
2			GPS_Month	8 bit unsigned	1	0	0-255 Months UTC	unitless:	<==	<==	<==	<==
3			GPS_Day	8 bit unsigned	1	0	0-255 Days UTC	time:day	<==	<==	<==	<==
4			GPS_Debug_Flags	8 bit unsigned	1	0	0-255	unitless:	<==	<==	<==	<==
5			GPS_Hours	8 bit unsigned	1	0	0-255 Hours UTC	time:h	<==	<==	<==	<==
6			GPS_Minutes	8 bit unsigned	1	0	0-255 Minutes UTC	time:min	<==	<==	<==	<==
7			GPS_Seconds	8 bit unsigned	1	0	0-255 Seconds UTC	time:s	<==	<==	<==	<==

Message I 0x000A0003
Sources: AEM Vehicle Dynamics Module (30-2203)
10ms continuous (100hz)

Byte	Bit	Bitmask	DBC Label	Data Type	Contained in CAN DBC Files*:	AEM VDM 30-2203 SI 20161008.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM VDM 30-2203 US 20161008.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			X_Axis_Accel	16 bit signed	0.0002441406 g /bit	0	-8g to +8g	acceleration:G	<==	<==	<==	<==
2-3			Y_Axis_Accel	16 bit signed	0.0002441406 g /bit	0	-8g to +8g	acceleration:G	<==	<==	<==	<==
4-5			Z_Axis_Accel	16 bit signed	0.0002441406 g /bit	0	-8g to +8g	acceleration:G	<==	<==	<==	<==
6			-	8 bit unsigned	1	0	---	---	<==	<==	<==	<==
7			-	8 bit unsigned	1	0	---	---	<==	<==	<==	<==

Message ID: 0x000A0004
Sources: AEM Vehicle Dynamics Module (30-2203)
10ms continuous (100hz)

Byte	Bit	Bitmask	DBC Label	Data Type	Contained in CAN DBC Files*:	AEM VDM 30-2203 SI 20161008.dbc SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	AEM VDM 30-2203 US 20161008.dbc US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			X_Axis_Yaw_Rate	16 bit signed	0.01525879 deg/s/bit	0	-500 deg/s to +500 deg/s	angular_speed:deg/s	<==	<==	<==	<==
2-3			Y_Axis_Yaw_Rate	16 bit signed	0.01525879 deg/s/bit	0	-500 deg/s to +500 deg/s	angular_speed:deg/s	<==	<==	<==	<==
4-5			Z_Axis_Yaw_Rate	16 bit signed	0.01525879 deg/s/bit	0	-500 deg/s to +500 deg/s	angular_speed:deg/s	<==	<==	<==	<==
6			-	8 bit unsigned	1	0	---	---	<==	<==	<==	<==
7			-	8 bit unsigned	1	0	---	---	<==	<==	<==	<==

Message ID: 0x00000026
Sources: AEM WB Ethanol/Boost Gauge (30-4910)
10ms continuous (100hz)

Byte	Bit	Bitmask	Label	Data Type	Contained in CAN DBC Files*:	TBD SI Units (C / kPa / kph / Lambda)			Contained in CAN DBC Files*:	TBD US Units (F / PSI / MPH / AFR)		
					Scaling	Offset	Range	DBC Unit Type	Scaling	Offset	Range	DBC Unit Type
0-1			Lambda	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Pressure	16 bit unsigned	0.00689476 kPa/bit	-2.09636	-2.09636 to 449.752 kPa	pressure:kPa	.001 PSI/bit	-15	-15 to 50.535 PSI	pressure_gauge:psi(g)
4			Fuel Temperature	8 bit signed	1 degC/bit	0	-40 degC to 125 degC	temperature:C	1.8 degF/bit	32	-40 degF to 284 degF	temperature:F
5			Flex Fuel Ethanol Content	8 bit unsigned	1 %/bit	0	0 to 100%	fraction:%	<==	<==	<==	<==
6	0 (lsb)	0	AFR Ready	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	AFR Heater Open Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	AFR CJ125 Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	AFR Sensor Heating Up	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	4	16	AFR Low Voltage	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	5	32	AFR Heater Time-Out Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	6	64	AFR Heater Short Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	7 (msb)	128	AFR Overtemp Error	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
7	0 (lsb)	0	Alarm Status	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	1	2	Alarm Source	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	2	4	Alarm Source	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==
	3	8	Alarm Source	Boolean	0 = false, 1 = true	0	0/1	unitless:	<==	<==	<==	<==

	4	16	---	Boolean	---	---	---	---	----	-----	-----	---
	5	32	---	Boolean	---	---	---	---	----	-----	-----	---
	6	64	---	Boolean	---	---	---	---	----	-----	-----	---
	7 (msb)	128	---	Boolean	---	---	---	---	----	-----	-----	---

Message ID: 0x00000027

Sources: AEM WB Ethanol/Boost Gauge (30-4910)

10ms continuous (100hz)

					Contained in CAN DBC Files*:		TBD SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		TBD US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0-1			Lambda Upper Limit	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Lambda Lower Limit	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
4-5			Alarm Delay Limit	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==
6-7			Alarm Delay Counter	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==

Message ID: 0x00000028

Sources: AEM WB Ethanol/Boost Gauge (30-4910)

10ms (100hz) only in alarm mode

					Contained in CAN DBC Files*:		TBD SI Units (C / kPa / kph / Lambda)		Contained in CAN DBC Files*:		TBD US Units (F / PSI / MPH / AFR)	
Byte	**Bit**	**Bitmask**	**Label**	**Data Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**	**Scaling**	**Offset**	**Range**	**DBC Unit Type**
0-1			Alarm Lambda	16 bit unsigned	.0001 Lambda/bit	0	0 to 6.5535 Lambda	afr:LA	.001465 AFR/bit	0	0 to 96.0088 AFR	afr:AFR Gasoline
2-3			Alarm Pressure	16 bit unsigned	0.00689476 kPa/bit	-2.09636	-2.09636 to 449.752 kPa	pressure:kPa	.001 PSI/bit	-15	-15 to 50.535 PSI	pressure_gauge:psi(g)
4-5			Alarm Reset Limit	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==
6-7			Alarm Reset Counter	16 bit unsigned	1 mS/bit	0	0 to 65,535 mS	time:ms	<==	<==	<==	<==

* ECU, VDM, Air/Fuel Sensor/Devices, DBC files can be found at http://aemelectronics.com/?q=forum/dbc-files-can-configuration-downloads-requests-share