

ADMANET - LIST OF DATA PACKETS V3.3.5

* ADMA PP data packets

* Necessary data packets for ADMA data validation

CAN/ETH-Message-Format: ADMAnet-Data; Format Version: 3.3.5.0; File Version: 35.2.0.0									
Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset
UDP-Header						42		0	-
ADMA Static-Header V1.0.0.0 (*3)	GeneSys ID			1	char	4	N/A	42	0
	Header Version			1	char	4	N/A	46	4
	Format ID			1	uint	4	N/A	50	8
	Format Version			1	char	4	N/A	54	12
	Reserved			1	uint	16	N/A	58	16
	Serial Number			1	uint	4	N/A	74	32
	Alias			1	uint	32	N/A	78	36
ADMA Dynamic-Header V1.0.1.0 (*3)	Config ID			1	uint	4	N/A	110	68
	Config Format			1	uint	4	N/A	114	72
	Config Version			1	uint	4	N/A	118	76
	Config Size			1	uint	4	N/A	122	80
	Byte Offset			1	uint	4	N/A	126	84
	Slice Size in Byte			1	uint	4	N/A	130	88
	Slice Data			1	byte	4	N/A	134	92
Status (*3)	Status_GNSS_Mode					4/8	B+1	138	96
	Status_Standstill					1/8		138 4/8	96 4/8
	Status_Skidding			1	uchar	1/8		138 5/8	96 5/8
	Reserved					1/8		138 6/8	96 6/8
	Status_External_Vel_Out					1/8		138 7/8	96 7/8
	Status_Trig_GNSS					1/8		139	97
	Status_Signal_IN3					1/8	139 1/8	97 1/8	
	Status_Signal_IN2					1/8	139 2/8	97 2/8	
	Status_Signal_IN1					1/8	139 3/8	97 3/8	
	Status_Alignment			1	uchar	1/8	139 4/8	97 4/8	
	Status_AHRS_INS					1/8	139 5/8	97 5/8	
	Status_Dead_reckoning					1/8	139 6/8	97 6/8	
	Status_SyncLock					1/8	139 7/8	97 7/8	
	Status_EVK_activ					1/8	140	98	
	Status_EVK_Estimates					1/8	140 1/8	98 1/8	
	Status_Heading_executed					1/8	140 2/8	98 2/8	
	Status_Config_Changed			1	uchar	1/8	140 3/8	98 3/8	
	Status_Tilt					2/8	140 4/8	98 4/8	
	Status_Pos					2/8	140 6/8	98 6/8	
	Status_Count			1	uchar	1	141	99	
Status_Kalmanfilter_settled			1		1/8	142	100		
Status_KF_Lat_stimulated			1	uchar	1/8	142 1/8	100 1/8		
Status_KF_Long_stimulated			1		1/8	142 2/8	100 2/8		
Status_KF_steady_state			1		1/8	142 3/8	100 3/8		

CAN/ETH-Message-Format: ADMAnet-Data; Format Version: 3.3.5.0; File Version: 35.2.0.0									
Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset
	Status_Speed			1		2/8		142 4/8	100 4/8
	Reserved					2/8		142 6/8	100 6/8
	Status_Robot			1	uchar	4/8		143	101
	Reserved				uchar	4/8		143 4/8	101 4/8
	Reserved				uchar	2		144	102
Error and Warning (*3)	Error_Hardware			1	uchar	4/8	B+2	146	104
	Error_Misc1					4/8		146 4/8	104 4/8
	Error_Misc2			1	uchar	4/8		147	105
	Error_Misc3					4/8	147 4/8	105 4/8	
	Warn_GNSS			1	uchar	4/8		148	106
	Warn_Misc1					4/8	148 4/8	106 4/8	
	Error_HW_Sticky			1	uchar	1/8		149	107
	Reserved					7/8	149 1/8	107 1/8	
Reserved			1	ulong	4		150	108	
Sensors body X	Acc_Body_HR_X	g	± 15 (*1)	0,0001	long	4	B+3	154	112
	Rate_Body_HR_X	°/s	± 450 (*1)			4		158	116
Sensors body Y	Acc_Body_HR_Y	g	± 15 (*1)	0,0001	long	4	B+4	162	120
	Rate_Body_HR_Y	°/s	± 450 (*1)			4		166	124
Sensors body Z	Acc_Body_HR_Z	g	± 15 (*1)	0,0001	long	4	B+5	170	128
	Rate_Body_HR_Z	°/s	± 450 (*1)			4		174	132
Rates body	Rate_Body_X	°/s	± 320 (*1)	0,01	int	2	B+6	178	136
	Rate_Body_Y					2		180	138
	Rate_Body_Z					2		182	140
	Reserved					2		184	142
Rates horizontal	Rate_Hor_X	°/s	± 320 (*1)	0,01	int	2	B+7	186	144
	Rate_Hor_Y					2		188	146
	Rate_Hor_Z					2		190	148
	Reserved					2		192	150
Accelerations body (*2)	Acc_Body_X	g	± 13,1 (*1)	0,0004	int	2	B+8	194	152
	Acc_Body_Y					2		196	154
	Acc_Body_Z					2		198	156
	Reserved					2		200	158
Accelerations horizontal (*2)	Acc_Hor_X	g	± 13,1 (*1)	0,0004	int	2	B+9	202	160
	Acc_Hor_Y					2		204	162
	Acc_Hor_Z					2		206	164
	Reserved					2		208	166
Accelerations POI1 body (*2)	Acc_Body_X_POI1	g	± 13,1 (*1)	0,0004	int	2	B+10	210	168
	Acc_Body_Y_POI1					2		212	170
	Acc_Body_Z_POI1					2		214	172
	Reserved					2		216	174
Accelerations POI2 body	Acc_Body_X_POI2	g	± 13,1 (*1)	0,0004	int	2	B+11	218	176
	Acc_Body_Y_POI2					2		220	178
	Acc_Body_Z_POI2					2		222	180
	Reserved					2		224	182
	Acc_Body_X_POI3	g	± 13,1 (*1)	0,0004	int	2	B+12	226	184

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Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset
Accelerations POI3 body	Acc_Body_Y_POI3					2		228	186
	Acc_Body_Z_POI3					2		230	188
	Reserved					2		232	190
Accelerations POI4 body	Acc_Body_X_POI4	g	$\pm 13,1(*1)$	0,0004	int	2	B+13	234	192
	Acc_Body_Y_POI4					2		236	194
	Acc_Body_Z_POI4					2		238	196
	Reserved	2	240	198					
Accelerations POI5 body	Acc_Body_X_POI5	g	$\pm 13,1(*1)$	0,0004	int	2	B+14	242	200
	Acc_Body_Y_POI5					2		244	202
	Acc_Body_Z_POI5					2		246	204
	Reserved	2	248	206					
Accelerations POI6 body	Acc_Body_X_POI6	g	$\pm 13,1(*1)$	0,0004	int	2	B+15	250	208
	Acc_Body_Y_POI6					2		252	210
	Acc_Body_Z_POI6					2		254	212
	Reserved	2	256	214					
Accelerations POI7 body	Acc_Body_X_POI7	g	$\pm 13,1(*1)$	0,0004	int	2	B+16	258	216
	Acc_Body_Y_POI7					2		260	218
	Acc_Body_Z_POI7					2		262	220
	Reserved	2	264	222					
Accelerations POI8 body	Acc_Body_X_POI8	g	$\pm 13,1(*1)$	0,0004	int	2	B+17	266	224
	Acc_Body_Y_POI8					2		268	226
	Acc_Body_Z_POI8					2		270	228
	Reserved	2	272	230					
Accelerations POI1 horizontal (*2)	Acc_Hor_X_POI1	g	$\pm 13,1(*1)$	0,0004	int	2	B+18	274	232
	Acc_Hor_Y_POI1					2		276	234
	Acc_Hor_Z_POI1					2		278	236
	Reserved	2	280	238					
Accelerations POI2 horizontal	Acc_Hor_X_POI2	g	$\pm 13,1(*1)$	0,0004	int	2	B+19	282	240
	Acc_Hor_Y_POI2					2		284	242
	Acc_Hor_Z_POI2					2		286	244
	Reserved	2	288	246					
Accelerations POI3 horizontal	Acc_Hor_X_POI3	g	$\pm 13,1(*1)$	0,0004	int	2	B+20	290	248
	Acc_Hor_Y_POI3					2		292	250
	Acc_Hor_Z_POI3					2		294	252
	Reserved	2	296	254					
Accelerations POI4 horizontal	Acc_Hor_X_POI4	g	$\pm 13,1(*1)$	0,0004	int	2	B+21	298	256
	Acc_Hor_Y_POI4					2		300	258
	Acc_Hor_Z_POI4					2		302	260
	Reserved	2	304	262					
Accelerations POI5 horizontal	Acc_Hor_X_POI5	g	$\pm 13,1(*1)$	0,0004	int	2	B+22	306	264
	Acc_Hor_Y_POI5					2		308	266
	Acc_Hor_Z_POI5					2		310	268
	Reserved	2	312	270					
Accelerations POI6 horizontal	Acc_Hor_X_POI6	g	$\pm 13,1(*1)$	0,0004	int	2	B+23	314	272
	Acc_Hor_Y_POI6					2		316	274
	Acc_Hor_Z_POI6					2		318	276

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Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset		
	Reserved					2		320	278		
Accelerations POI7 horizontal	Acc_Hor_X_POI7	g	± 13,1(*1)	0,0004	int	2	B+24	322	280		
	Acc_Hor_Y_POI7					2		324	282		
	Acc_Hor_Z_POI7					2		326	284		
	Reserved					2		328	286		
Accelerations POI8 horizontal	Acc_Hor_X_POI8	g	± 13,1(*1)	0,0004	int	2	B+25	330	288		
	Acc_Hor_Y_POI8					2		332	290		
	Acc_Hor_Z_POI8					2		334	292		
	Reserved					2		336	294		
External Velocity Analog	Ext_Vel_An_X	m/s	± 160	0,005	int	2	B+26	338	296		
	Ext_Vel_An_Y					2		340	298		
	Reserved					2		342	300		
	Reserved					2		344	302		
External Velocity Digital Pulses	Ext_Vel_Dig_X	m/s	± 160	0,005	int	2	B+27	346	304		
	Ext_Vel_Dig_Y					2		348	306		
	Ext_Vel_Dig_Pulses_X				0..65535	1		uint	2	350	308
	Ext_Vel_Dig_Pulses_Y								2	352	310
External Velocity corrected	Ext_Vel_X_corrected	m/s	± 160	0,005	int	2	B+28	354	312		
	Ext_Vel_Y_corrected					2		356	314		
	Reserved					2		358	316		
	Reserved					2		360	318		
Reserved	Reserved	mBar	600..1200(*1)	0,01	ulong	4	B+29	362	320		
	Reserved					4		366	324		
Reserved	Reserved	m		0,01	long	4	B+30	370	328		
	Reserved					4		374	332		
Reserved	Reserved					4	B+31	378	336		
	Reserved					4		382	340		
Miscellaneous	Inv_Path_Radius	1/m	± 3,2767	0,0001	int	2	B+32	386	344		
	Side_Slip_Angle	°	± 180	0,01		2		388	346		
	Dist_Trav	m	0..1E+6	0,01	ulong	4		390	348		
Miscellaneous POI1	Inv_Path_Radius_POI1	1/m	± 3,2767	0,0001	int	2	B+33	394	352		
	Side_Slip_Angle_POI1	°	± 180	0,01		2		396	354		
	Dist_Trav_POI1	m	0..1E+6	0,01	ulong	4		398	356		
Miscellaneous POI2	Inv_Path_Radius_POI2	1/m	± 3,2767	0,0001	int	2	B+34	402	360		
	Side_Slip_Angle_POI2	°	± 180	0,01		2		404	362		
	Dist_Trav_POI2	m	0..1E6	0,01	ulong	4		406	364		
Miscellaneous POI3	Inv_Path_Radius_POI3	1/m	± 3,2767	0,0001	int	2	B+35	410	368		
	Side_Slip_Angle_POI3	°	± 180	0,01		2		412	370		
	Dist_Trav_POI3	m	0..1E+6	0,01	ulong	4		414	372		
Miscellaneous POI4	Inv_Path_Radius_POI4	1/m	± 3,2767	0,0001	int	2	B+36	418	376		
	Side_Slip_Angle_POI4	°	± 180	0,01		2		420	378		
	Dist_Trav_POI4	m	0..1E+6	0,01	ulong	4		422	380		
Miscellaneous POI5	Inv_Path_Radius_POI5	1/m	± 3,2767	0,0001	int	2	B+37	426	384		
	Side_Slip_Angle_POI5	°	± 180	0,01		2		428	386		
	Dist_Trav_POI5	m	0..1E+6	0,01	ulong	4		430	388		
	Inv_Path_Radius_POI6	1/m	± 3,2767	0,0001	int	2	B+38	434	392		

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Miscellaneous POI6	Side_Slip_Angle_POI6	°	± 180	0,01		2		436	394
	Dist_Trav_POI6	m	0..1E+6	0,01	ulong	4		438	396
Miscellaneous POI7	Inv_Path_Radius_POI7	1/m	± 3,2767	0,0001	int	2	B+39	442	400
	Side_Slip_Angle_POI7	°	± 180	0,01		2		444	402
	Dist_Trav_POI7	m	0..1E+6	0,01	ulong	4		446	404
Miscellaneous POI8	Inv_Path_Radius_POI8	1/m	± 3,2767	0,0001	int	2	B+40	450	408
	Side_Slip_Angle_POI8	°	± 180	0,01		2		452	410
	Dist_Trav_POI8	m	0..1E+6	0,01	ulong	4		454	412
Triggers 1 and 2 (*2)	Trig_Rising_1	µs	1..20000	1	uint	2	B+41	458	416
	Trig_Falling_1					2		460	418
	Trig_Rising_2					2		462	420
	Trig_Falling_2					2		464	422
Triggers 3 and 4 (*2)	Trig_Rising_3	µs	1..20000	1	uint	2	B+42	466	424
	Trig_Falling_3					2		468	426
	Trig_Rising_4					2		470	428
	Trig_Falling_4					2		472	430
System Data (*)	System-Ta	µs	1000..20000	1	uint	2	B+43	474	432
	System_Temp	°C	± 127	0,1	int	2		476	434
	System_TimeSinceInit	s	0..65535	1	uint	2		478	436
	System_DSP_Load	%	0..100	0,1	uint	2		480	438
GNSS Position absolute	GNSS_Lat_Abs	°	± 90	1E-7	long	4	B+44	482	440
	GNSS_Long_Abs		± 180			4		486	444
GNSS Position relative	GNSS_Pos_Rel_X	m		0,01	long	4	B+45	490	448
	GNSS_Pos_Rel_Y					4		494	452
GNSS EPE (EPE= Expected Position Error)	GNSS_Stddev_Lat	m	0..60	0,001	uint	2	B+46	498	456
	GNSS_Stddev_Long					2		500	458
	GNSS_Stddev_Height					2		502	460
	GNSS_Stddev_COG					°		0,01..180	0,01
GNSS Velocity frame (*2)	GNSS_Vel_Frame_X	m/s	± 160	0,005	int	2	B+47	506	464
	GNSS_Vel_Frame_Y					2		508	466
	GNSS_Vel_Frame_Z					2		510	468
	GNSS_Vel_Latency	s	0..60	0,001	uint	2		512	470
GNSS EVE (EVE= Expected Velocity Error) (*2)	GNSS_Stddev_Vel_X	m/s	0..60	0,001	uint	2	B+48	514	472
	GNSS_Stddev_Vel_Y					2		516	474
	GNSS_Stddev_Vel_Z					2		518	476
	Reserved					2		520	478
GNSS Time UTC (*2)	GNSS_Time_msec	ms	0..6,048E+8	1	ulong	4	B+49	522	480
	GNSS_Time_Week	week	0..65536	1	uint	2		526	484
	Trigger_GNSS	µs	1000..20000	1		2		528	486
GNSS AuxData 1 (*2)	GNSS_DiffAge	s	0..60	0,1	uint	2	B+50	530	488
	GNSS_Sats_Used		0..100	1	uchar	1		532	490
	GNSS_Sats_Visible		0..100	1	uchar	1		533	491
	GNSS_Sats_DualAnt_Used		0..100	1	uchar	1		534	492
	GNSS_Sats_DualAnt_Visible		0..100	1	uchar	1		535	493
	GNSS_Sats_Single_Freq		0..100	1	uchar	1		536	494
	GNSS_Sats_Multi_Freq		0..100	1	uchar	1		537	495

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GNSS AuxData 2 (*2)	GNSS_Log_Delay	Ta	0..20	1	uchar	1	B+51	538	496
	GNSS_Receiver_Load	%	0..100	0,5	uchar	1		539	497
	GNSS_BaseNr		a-z, 0-9		uchar	4		540	498
	Reserved					1		544	502
	GNSS_Sats_DualAnt_Multi_Freq			0..100	1	uchar		1	545
INS Angle and GNSS COG (COG = Course over Ground) (*2)	INS_Roll	°	± 60	0,01	int	2	B+52	546	504
	INS_Pitch				int	2		548	506
	INS_Yaw		0..359,99		uint	2		550	508
	GNSS_COG				uint	2		552	510
GNSS Height MSL	GNSS_Height	m		0,01	long	4	B+53	554	512
	Undulation				int	2		558	516
	Reserved				uint	2		560	518
GNSS DualAnt Time UTC	GNSS_DualAnt_Time_msec	ms	0..6,048E+8	1	ulong	4	B+54	562	520
	GNSS_DualAnt_Time_Week	week	0..65536		uint	2		566	524
	Reserved					2		568	526
GNSS DualAnt Angle	GNSS_DualAnt_Heading	°	0..359,99	0,01	uint	2	B+55	570	528
	GNSS_DualAnt_Pitch	°	± 60		int	2		572	530
	Reserved					4		574	532
GNSS DualAnt Angle ETE (ETE = Expected Tilt Error)	GNSS_DualAnt_Stddev_Heading	°	0,01..2,55	0,01	uchar	1	B+56	578	536
	GNSS_DualAnt_Stddev_Pitch	°			uchar	1		579	537
	GNSS_DualAnt_Stddev_Heading_HR	°	0,01..359,99	0,01	uint	2		580	538
	GNSS_DualAnt_Stddev_Pitch_HR	°	0,01..359,99	0,01	uint	2		582	540
	Reserved					2		584	542
INS Position Height (MSL)	INS_Height	m		0,01	long	4	B+57	586	544
	INS_Yaw_Rel	°	0..359,99	0,01	Uint	2		590	548
	Reserved					2		592	550
INS Position Height POI1 and 2 (MSL)	INS_Height_POI1	m		0,01	long	4	B+58	594	552
	INS_Height_POI2				long	4		598	556
INS Position Height POI3 and 4 (MSL)	INS_Height_POI3	m		0,01	long	4	B+59	602	560
	INS_Height_POI4				long	4		606	564
INS Position Height POI5 and 6 (MSL)	INS_Height_POI5	m		0,01	long	4	B+60	610	568
	INS_Height_POI6				long	4		614	572
INS Position Height POI7 and 8 (MSL)	INS_Height_POI7	m		0,01	long	4	B+61	618	576
	INS_Height_POI8	m		0,01	long	4		622	580
INS Time UTC (*2)	INS_Time_msec	ms	0..6,048E+8	1	ulong	4	B+62	626	584
	INS_Time_Week	week	0..65536	1	uint	2		630	588
	Leap_Seconds	s	0..100	1	int	2		632	590
INS Position absolute (*2)	INS_Lat_Abs	°	± 90	1E-7	long	4	B+63	634	592
	INS_Long_Abs		± 180			4		638	596
INS Position relative	INS_Pos_Rel_X	m		0,01	long	4	B+64	642	600
	INS_Pos_Rel_Y					4		646	604
INS Position POI1 absolute	INS_Lat_Abs_POI1	°	± 90	1E-7	long	4	B+65	650	608
	INS_Long_Abs_POI1		± 180			4		654	612
INS Position POI1 relative	INS_Pos_Rel_X_POI1	m		0,01	long	4	B+66	658	616
	INS_Pos_Rel_Y_POI1					4		662	620

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INS Position POI2 absolute	INS_Lat_Abs_POI2	°	± 90	1E-7	long	4	B+67	666	624
	INS_Long_Abs_POI2		± 180			4		670	628
INS Position POI2 relative	INS_Pos_Rel_X_POI2	m		0,01	long	4	B+68	674	632
	INS_Pos_Rel_Y_POI2					4		678	636
INS Position POI3 absolute	INS_Lat_Abs_POI3	°	± 90	1E-7	long	4	B+69	682	640
	INS_Long_Abs_POI3		± 180			4		686	644
INS Position POI3 relative	INS_Pos_Rel_X_POI3	m		0,01	long	4	B+70	690	648
	INS_Pos_Rel_Y_POI3					4		694	652
INS Position POI4 absolute	INS_Lat_Abs_POI4	°	± 90	1E-7	long	4	B+71	698	656
	INS_Long_Abs_POI4		± 180			4		702	660
INS Position POI4 relative	INS_Pos_Rel_X_POI4	m		0,01	long	4	B+72	706	664
	INS_Pos_Rel_Y_POI4					4		710	668
INS Position POI5 absolute	INS_Lat_Abs_POI5	°	± 90	1E-7	long	4	B+73	714	672
	INS_Long_Abs_POI5		± 180			4		718	676
INS Position POI5 relative	INS_Pos_Rel_X_POI5	m		0,01	long	4	B+74	722	680
	INS_Pos_Rel_Y_POI5					4		726	684
INS Position POI6 absolute	INS_Lat_Abs_POI6	°	± 90	1E-7	long	4	B+75	730	688
	INS_Long_Abs_POI6		± 180			4		734	692
INS Position POI6 relative	INS_Pos_Rel_X_POI6	m		0,01	long	4	B+76	738	696
	INS_Pos_Rel_Y_POI6					4		742	700
INS Position POI7 absolute	INS_Lat_Abs_POI7	°	± 90	1E-7	long	4	B+77	746	704
	INS_Long_Abs_POI7		± 180			4		750	708
INS Position POI7 relative	INS_Pos_Rel_X_POI7	m		0,01	long	4	B+78	754	712
	INS_Pos_Rel_Y_POI7					4		758	716
INS Position POI8 absolute	INS_Lat_Abs_POI8	°	± 90	1E-7	long	4	B+79	762	720
	INS_Long_Abs_POI8		± 180			4		766	724
INS Position POI8 relative	INS_Pos_Rel_X_POI8	m		0,01	long	4	B+80	770	728
	INS_Pos_Rel_Y_POI8					4		774	732
INS Velocity horizontal (*2)	INS_Vel_Hor_X	m/s	± 160	0,005	int	2	B+81	778	736
	INS_Vel_Hor_Y					2		780	738
	INS_Vel_Hor_Z					2		782	740
	Reserved					2		784	742
INS Velocity frame (*2)	INS_Vel_Frame_X	m/s	± 160	0,005	int	2	B+82	786	744
	INS_Vel_Frame_Y					2		788	746
	INS_Vel_Frame_Z					2		790	748
	Reserved					2		792	750
INS Velocity POI1 horizontal (*2)	INS_Vel_Hor_X_POI1	m/s	± 160	0,005	int	2	B+83	794	752
	INS_Vel_Hor_Y_POI1					2		796	754
	INS_Vel_Hor_Z_POI1					2		798	756
	Reserved					2		800	758
INS Velocity POI2 horizontal	INS_Vel_Hor_X_POI2	m/s	± 160	0,005	int	2	B+84	802	760
	INS_Vel_Hor_Y_POI2					2		804	762
	INS_Vel_Hor_Z_POI2					2		806	764
	Reserved					2		808	766
INS Velocity POI3 horizontal	INS_Vel_Hor_X_POI3	m/s	± 160	0,005	int	2	B+85	810	768
	INS_Vel_Hor_Y_POI3					2		812	770

CAN/ETH-Message-Format: ADMAnet-Data; Format Version: 3.3.5.0; File Version: 35.2.0.0									
Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset
	INS_Vel_Hor_Z_POI3					2		814	772
	Reserved					2		816	774
INS Velocity POI4 horizontal	INS_Vel_Hor_X_POI4	m/s	± 160	0,005	int	2	B+86	818	776
	INS_Vel_Hor_Y_POI4					2		820	778
	INS_Vel_Hor_Z_POI4					2		822	780
	Reserved	2	824	782					
INS Velocity POI5 horizontal	INS_Vel_Hor_X_POI5	m/s	± 160	0,005	int	2	B+87	826	784
	INS_Vel_Hor_Y_POI5					2		828	786
	INS_Vel_Hor_Z_POI5					2		830	788
	Reserved	2	832	790					
INS Velocity POI6 horizontal	INS_Vel_Hor_X_POI6	m/s	± 160	0,005	int	2	B+88	834	792
	INS_Vel_Hor_Y_POI6					2		836	794
	INS_Vel_Hor_Z_POI6					2		838	796
	Reserved	2	840	798					
INS Velocity POI7 horizontal	INS_Vel_Hor_X_POI7	m/s	± 160	0,005	int	2	B+89	842	800
	INS_Vel_Hor_Y_POI7					2		844	802
	INS_Vel_Hor_Z_POI7					2		846	804
	Reserved	2	848	806					
INS Velocity POI8 horizontal	INS_Vel_Hor_X_POI8	m/s	± 160	0,005	int	2	B+90	850	808
	INS_Vel_Hor_Y_POI8					2		852	810
	INS_Vel_Hor_Z_POI8					2		854	812
	Reserved	2	856	814					
INS EPE (EPE = Expected Position Error)	INS_Stddev_Lat	m	0..60	0,01	uint	2	B+91	858	816
	INS_Stddev_Long					2		860	818
	INS_Stddev_Height					2		862	820
	Reserved	2	864	822					
INS EVE and INS ETE (EVE = Expected Velocity Error) (ETE = Expected Tilt Error) (*2)	INS_Stddev_Vel_X	m/s	0,01..2,55	0,01	uchar	1	B+92	866	824
	INS_Stddev_Vel_Y					1		867	825
	INS_Stddev_Vel_Z					1		868	826
	INS_Stddev_Roll	°	0,01..2,55	0,01	uchar	1		869	827
	INS_Stddev_Pitch					1		870	828
	INS_Stddev_Yaw					1		871	829
Reserved					2	872	830		
Analog In1	AN1	V	± 10	0,0005	int	2	B+93	874	832
	AN2					2		876	834
	AN3					2		878	836
	AN4					2		880	838
Kalmanfilter Status (*2)	KF_Lat_stimulated	%	0..100	1	uint	1	B+94	882	840
	KF_Long_stimulated					1		883	841
	KF_steady_state					1		884	842
	Reserved	5	885	843					
GNSS Receiver Status and Error (*2)	GNSS_Receiver_Error			1	ulong	4	B+95	890	848
	Reserved					1/8		890	848
	Reserved			1	ulong	1/8		890 1/8	848 1/8
	Reserved					1/8		890 2/8	848 2/8
	Reserved					1/8		890 3/8	848 3/8

CAN/ETH-Message-Format: ADMAnet-Data; Format Version: 3.3.5.0; File Version: 35.2.0.0									
Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset
	Reserved					1/8		890 4/8	848 4/8
	Reserved					1/8		890 5/8	848 5/8
	Reserved					1/8		890 6/8	848 6/8
	Reserved					1/8		890 7/8	848 7/8
	Reserved					1/8		891	849
	Reserved					1/8		891 1/8	849 1/8
	Reserved					1/8		891 2/8	849 2/8
	Reserved					1/8		891 3/8	849 3/8
	Reserved					1/8		891 4/8	849 4/8
	Reserved					1/8		891 5/8	849 5/8
	Reserved					1/8		891 6/8	849 6/8
	Reserved					1/8		891 7/8	849 7/8
	Reserved					1/8		892	850
	Reserved					1/8		892 1/8	850 1/8
	Reserved					1/8		892 2/8	850 2/8
	Reserved					1/8		892 3/8	850 3/8
	Reserved					1/8		892 4/8	850 4/8
	Reserved					1/8		892 5/8	850 5/8
	Reserved					1/8		892 6/8	850 6/8
	Reserved					1/8		892 7/8	850 7/8
	Reserved					1/8		893	851
	Reserved					1/8		893 1/8	851 1/8
	Reserved					1/8		893 2/8	851 2/8
	Reserved					1/8		893 3/8	851 3/8
	Reserved					1/8		893 4/8	851 4/8
	Reserved					1/8		893 5/8	851 5/8
	Reserved					1/8		893 6/8	851 6/8
	Reserved					1/8		893 7/8	851 7/8
	GNSS_Receiver_Status			1	ulong	4		894	852
	Reserved					1/8		894	852
	GNSS_Temp_warning					1/8		894 1/8	852 1/8
	Reserved					1/8		894 2/8	852 2/8
	Reserved					1/8		894 3/8	852 3/8
	Reserved					1/8		894 4/8	852 4/8
	GNSS_Prim_Ant_open					1/8		894 5/8	852 5/8
	GNSS_Prim_Ant_short_circuit					1/8		894 6/8	852 6/8
	Reserved			1	ulong	1/8		894 7/8	852 7/8
	Reserved					1/8		895	853
	Reserved					1/8		895 1/8	853 1/8
	Reserved					1/8		895 2/8	853 2/8
	Reserved					1/8		895 3/8	853 3/8
	Reserved					1/8		895 4/8	853 4/8
	Reserved					1/8		895 5/8	853 5/8
	GNSS_Ant_Gain_out_of_range					1/8		895 6/8	853 6/8
	GNSS_Jammer_Detected					1/8		895 7/8	853 7/8

CAN/ETH-Message-Format: ADMAnet-Data; Format Version: 3.3.5.0; File Version: 35.2.0.0									
Data Package	Channel-Name	Unit	Range	LSB	Format	Memory Size Byte	CAN-ID Offset	UDP-Pack Offset	UDP-Data Offset
	Reserved					1/8		896	854
	Reserved					1/8		896 1/8	854 1/8
	GNSS_Almanac_invalid					1/8		896 2/8	854 2/8
	GNSS_Solution_invalid					1/8		896 3/8	854 3/8
	Reserved					1/8		896 4/8	854 4/8
	Reserved					1/8		896 5/8	854 5/8
	Reserved					1/8		896 6/8	854 6/8
	Reserved					1/8		896 7/8	854 7/8
	Reserved					1/8		897	855
	Reserved					1/8		897 1/8	855 1/8
	Reserved					1/8		897 2/8	855 2/8
	Reserved					1/8		897 3/8	855 3/8
	Reserved					1/8		897 4/8	855 4/8
	Reserved					1/8		897 5/8	855 5/8
	Reserved					1/8		897 6/8	855 6/8
	Reserved					1/8		897 7/8	855 7/8

(*1) The actual terminal value depends on the ADMA type. Subject to change.

(*2) ADMA-Speed BASIC version data package.

(*3) ADMA basic data package.

B = BASE ID CAN

1.1. DESCRIPTION OF THE STATUS BITS

The first data packet contains necessary ADMA status information. Please note that these data packets cannot be disabled at the CAN configuration.

Status		
NAME	UNIT	DESCRIPTION
Status_GNSS_Mode		8 = DGNSS precise 4 = DGNSS coarse 2 = single GNSS 1 = no GNSS-Data
Status_Standstill		1 = Vehicle at stop
Status_Skidding		1 = Vehicle is skidding
Status_External_Vel_Out		1 = External velocity deviates from system velocity
Status_Trig_GNSS		1 = GNSS receiver was sampling
Status_Signal_IN3		1 = Signal was detected
Status_Signal_IN2		1 = Signal was detected
Status_Signal_IN1		1 = Signal was detected
Status_Alignment		1 = prealignment (at start)
Status_AHRS_INS		0 = IMU-Modus 1 = AHRS-Modus
Status_Dead_reckoning		1 = dead reckoning operation
Status_SyncLock		1 = ADMA-Time is adjusted
Status_EVK_activ		External-Velocity-Kalman filter active, control criteria fulfilled
Status_EVK_Estimates		External-Velocity-Kalman filter has found valid estimates
Status_Heading_executed		Initialisation of heading executed
Status_Configuration_Changed		Indicate a change of the ADMA configuration during measurement mode
Status_Tilt		Tilt quality 0 = red 1 = yellow 2 = green
Status_Pos		Position quality 0 = red 1 = yellow 2 = green
Status_Count		Alignment time countdown at measurement start. Data record count 0-255 continuously at measurement
Status_Kalmanfilter_settled		1 = Kalman filter settled in all axes
Status_KF_Lat_stimulated		1 = Kalman filter settled in lateral axis
Status_KF_Long_stimulated		1 = Kalman filter settled in longitudinal axis
Status_KF_steady-state		1 = Kalman filter bias estimates settled
Status_Speed		Speed quality 0 = red 1 = yellow 2 = green

1.2. DESCRIPTION OF THE ERROR/WARNING BITFIELD

The second data packet is split into the bitfields Error and Warning. Please note that these data packets cannot be disabled at the CAN configuration.

The Error and Warning information are combined in 4 Bit data packets. The output value must be converted to a Binary (BIN) value. A detailed description of the separate Bits can be found in the lookup table below.

Error and Warning		
NAME	UNIT	DESCRIPTION
Error_Hardware	Bitfield	Hardware Error. Details below.
Error_Misc1	Bitfield	Hardware Error. Details below.
Error_Misc2	Bitfield	Hardware Error. Details below.
Error_Misc3	Bitfield	Hardware Error. Details below.
Warn_GNSS	Bitfield	Warnings GNSS. Details below.
Warn_Misc1	Bitfield	Warnings Miscellaneous Details below.
Error_HW_Sticky	Bitfield	Hardware Error counter

Bitfield Error_Hardware

3					0
	GNSS_HW_Err	ExtSpeedHWErr	AccelHWErr	GyroHWErr	

Bit 3: Hardware error GNSS Receiver

Bit 2: ExtSpeedHWErr - Hardware error external speed signal - Missing pulses from external sensor

Bit 1: Hardware error accelerometer – Insufficient supply voltage

Bit 0: Hardware error gyro – Insufficient supply voltage

Bitfield Error_Misc1

3					0
	CMDError	XmitError	EEPromError	DataBus ChecksumError	

Bit 3: Command error

Bit 2: Transmission error (RS 232)

Bit 1: EEPROM error (no calibration data)

Bit 0: Serious data bus error

Bitfield Error_Misc2

3					0
	NumErr	BaroErr	CanBusErr	DataBusError	

Bit 3: Numerical error

Bit 2: Hardware error Barometer

Bit 1: Error during CAN operation

Bit 0: Serious data bus error

Bitfield Error_Misc3

3					0
	Reserved	RangeMax	ReducedAccuracy	TempWarning	

Bit 3: Reserved

Bit 2: Measuring range trespassed / measurement invalid

Bit 1: Reduced sensor accuracy

Bit 0: Temperature warning

Bitfield Warn_GNSS

3					0
	GNSS_UnableTo Configure	GNSS_Ignored	GNSS_Vel_Ignored	GNSS_NoSolution	

Bit 3: GNSS unable to configure, still booting

Bit 2: GNSS-Position seems not correct – Data ignored

Bit 1: GNSS-Velocity seems not correct – Data ignored

Bit 0: GNSS cannot calculate position

Bitfield Warn_Misc1

3					0
	Reserved	Reserved	Warn_GNSS_DualAnt_ ignored	Speed-Off	

Bit 3: Reserved

Bit 2: Reserved

Bit 1: GNSS DualAnt seems not correct - Data ignored

Bit 0: External speed signal not valid / HW-Error

Lookup Table decimal DEC to hexadecimal HEX to binary BIN coded.

DEC	HEX	BIN
0	00	0000
1	01	0001
2	02	0010
3	03	0011
4	04	0100
5	05	0101
6	06	0110
7	07	0111
8	08	1000
9	09	1001
10	0A	1010
11	0B	1011
12	0C	1100
13	0D	1101
14	0E	1110
15	0F	1111