Send messages / *Sendebotschaften*:

		ID = 0x770	Injection		
byte	row	label	range, conversion formula	type	raster
0	-	ti_1	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
1	-	ti_2	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
2	-	ti_3	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
3	-	ti_4	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
4	-	ti_5	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
5	-	ti_6	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
6	-	ti_7	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
7	-	ti_8	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms

		ID = 0x771	Injection		
byte	row	label	range, conversion formula	type	raster
0	-	tibase	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
1	-	tibatt_o	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
2	-	timap	range=0..25.5[ms], phys = int * 25,5 / 255 ms	unsigned	5ms
3	-	injang	range=0..720[°KW], phys = int * 720 / 256 °KW	unsigned	5ms
4	-	injoff	range=0..255, phys = int * 1	unsigned	5ms
5	-	lamctrl_k	range=0..2, phys = int * 2 / 255	unsigned	5ms
6	-	lamctrl_2k	range=0..2, phys = int * 2 / 255	unsigned	5ms
7	-	*free*			

		ID = 0x772	Ignition		
byte	row	label	range, conversion formula	type	raster
0		ign_1	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
1		ign_2	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
2		ign_3	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
3		ign_4	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
4		ign_5	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
5		ign_6	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
6		ign_7	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
7		ign_8	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms

		ID = 0x773	Ignition / Rev / Ath		
byte	row	label	range, conversion formula	type	raster
0	-	ignbase	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
1	-	ignmap	range=-96..95.25[°KW], phys = 191.25 * int / 255 [°KW]	signed	5ms
2	-	tdwell	range=0..25,5[ms], phys = int * 25.5 / 255 [ms]	unsigned	5ms
3	-	rev.msb	range=0..32767 [rpm], phys = int * 32767.5 / 65535 [kph]	unsigned	5ms
4	-	rev.lsb	range=0..32767 [rpm], phys = int * 32767.5 / 65535 [kph]	unsigned	5ms
5	-	ath	range=0..100[%], phys = int * 100 / 256 [%]	unsigned	5ms
6	-	dath	range=-1536..1524 [%/s], phys = int * 3060 / 255 [%/s]	signed	5ms
7	-	*free*			

		ID = 0x774	Lambda		
byte	row	label	range, conversion formula	type	raster
0	-	lami	range=-32..31.8 [%], phys = int * 64 / 256 [%]	signed	5ms
1	-	lami_2	range=-32..31.8 [%], phys = int * 64 / 256 [%]	signed	5ms
2	-	lamp	range=-32..31.8 [%], phys = int * 64 / 256 [%]	signed	5ms
3	-	lamp_2	range=-32..31.8 [%], phys = int * 64 / 256 [%]	signed	5ms
4	-	lam	range=0..2, phys = int * 2 / 255	unsigned	5ms
5	-	lam_2	range=0..2, phys = int * 2 / 255	unsigned	5ms
6	-	lammap	range=0..2, phys = int * 2 / 255	unsigned	5ms
7	-	*free*			

		ID = 0x775	Speed		
byte	**row**	**label**	**range, conversion formula**	**type**	**raster**
0	-	speed.msb	range=0..512 [kph], phys = int * 512 / 65536 [kph]	unsigned	5ms
1	-	speed.lsb	range=0..512 [kph], phys = int * 512 / 65536 [kph]	unsigned	5ms
2	-	speedfl	range=0..512 [kph], phys = int * 512 / 256 [kph]	unsigned	5ms
3	-	speedfr	range=0..512 [kph], phys = int * 512 / 256 [kph]	unsigned	5ms
4	-	speedrl	range=0..512 [kph], phys = int * 512 / 256 [kph]	unsigned	5ms
5	-	speedrr	range=0..512 [kph], phys = int * 512 / 256 [kph]	unsigned	5ms
6	-	*free*			
7	-	*free*			

		ID = 0x776	Lapfunc		
byte	**row**	**label**	**range, conversion formula**	**type**	**raster**
0	-	lapdist.msb	range=0..65535[m], phys = int * 1 [m]	unsigned	5ms
1	-	lapdist.lsb	range=0..65535[m], phys = int * 1 [m]	unsigned	5ms
2	-	laptime.msb	range=0..655,35 [s], phys = int / 100 [s]	unsigned	5ms
3	-	laptime.lsb	range=0..655,35 [s], phys = int / 100 [s]	unsigned	5ms
4	-	laptimediff.msb	range=0..655,35 [s], phys = int / 100 [s]	unsigned	5ms
5	-	laptimediff.lsb	range=0..655,35 [s], phys = int / 100 [s]	unsigned	5ms
6	-	laptimefast.msb	range=0..655,35 [s], phys = int / 100 [s]	unsigned	5ms
7	-	laptimefast.lsb	range=0..655,35 [s], phys = int / 100 [s]	unsigned	5ms

		ID = 0x777	Gear / Dashboard / Acceleration		
byte	**row**	**label**	**range, conversion formula**	**type**	**raster**
0	-	gear	range=0..255, phys = int * 1	unsigned	5ms
1	-	gcstate	range=0..255, phys = int * 1	unsigned	5ms
2	-	gearratio	range=0..16, phys = int * 16 / 256	unsigned	5ms
3	-	gearcut_u	range=0..5 [V], phys = int * 5 / 255 [V]	unsigned	5ms
4	-	ddugear	range=0..255, phys = int * 1 (ASCII value of current gear)	unsigned	5ms
5	-	accx	range=-4..3.96 [g], phys = int * 8 / 255 [g]	signed	5ms
6	-	accy	range=-4..3.96 [g], phys = int * 8 / 255 [g]	signed	5ms
7	-	accz	range=-4..3.96 [g], phys = int * 8 / 255 [g]	signed	5ms

		ID = 0x778	Traction Control		
byte	**row**	**label**	**range, conversion formula**	**raster**	**raster**
0	-	tcpfac	range=-100..99.21 [%], phys = int * 200 / 256 [%]	signed	5ms
1	-	tcsw	range=0..255, phys = int * 1	unsigned	5ms
2	-	slipsp	range=0..20[%], phys = int * 20 / 255 [%]	unsigned	5ms
3	-	slra	range=0..20[%], phys = int * 20 / 255 [%]	unsigned	5ms
4	-	Vdraxle.msb	range=0..512 [kph], phys = int * 512 / 65536 [kph]	unsigned	5ms
5	-	Vdraxle .lsb	range=0..512 [kph], phys = int * 512 / 65536 [kph]	unsigned	5ms
6	-	vref.msb	range=0..512 [kph], phys = int * 512 / 65536 [kph]	unsigned	5ms
7	-	vref.lsb	range=0..512 [kph], phys = int * 512 / 65536 [kph]	unsigned	5ms

		ID = 0x779	Electronic Throttle Control		
byte	**row**	**label**	**range, conversion formula**	**type**	**raster**
0	-	etb	range=0..100[%], phys = int / 2 [%]	unsigned	5ms
1	-	etb_sp	range=0..100[%], phys = int / 2 [%]	unsigned	5ms
2	-	aps	range=0..100[%], phys = int / 2 [%]	unsigned	5ms
3	-	p1.msb	range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	5ms
4	-	p1.lsb	range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	5ms
5	-	camshaftpos	range=0...128 [°KW], phys = int * 128 / 256 [°KW]	unsigned	5ms
6	-	batt_u	range=0..18.0272 [V], phys = int * 18.0272 / 256 [V]	unsigned	5ms
7	-	lap_c	range=0..255, phys = int * 1	unsigned	5ms

		ID = 0x77A		State-Bytes, Diag-Bits		
byte	**row**	**label**		**range, conversion formula**	**type**	**raster**
0	-	*row counter*			*unsigned*	*5ms*
1	-	*state byte 1*	*[bit 7]*	injcut_b	bit	5ms
			[bit 6]	injcutin_b	bit	5ms
			[bit 5]	injenrich_b	bit	5ms
			[bit 4]	injstartphase_b	bit	5ms
			[bit 3]	lamctrl_b	bit	5ms
			[bit 2]	lamctrl_2b	bit	5ms
			[bit 1]	gearcut_b	bit	5ms
			[bit 0]	tc_b	bit	5ms
2	-	*state byte 2*	*[bit 7]*	idle_b	bit	5ms
			[bit 6]	lap_b	bit	5ms
			[bit 5]	laptrig_b	bit	5ms
			[bit 4]	mil_b	bit	5ms
			[bit 3]	oillamp_b	bit	5ms
			[bit 2]	phsok_1b	bit	5ms
			[bit 1]	phsokset_b	bit	5ms
			[bit 0]	speedlimit_b	bit	5ms
3	-	*state byte 3*	*[bit 7]*	ignoff_b	bit	5ms
			[bit 6]	rev_b	bit	5ms
			[bit 5]	revlimit_b	bit	5ms
			[bit 4]	startend_b	bit	5ms
			[bit 3]	knockadaptenable_b	bit	5ms
			[bit 2]	knockenable_b	bit	5ms
			[bit 1]	etbsys_e	bit	5ms
			[bit 0]	speedlimitreq_b	bit	5ms
4	1	pcrank		range=0..1275 [mbar], phys = int * 1275 / 255 [mBar]	unsigned	25ms
5		poil		range=0..13,107 [bar], phys = int * 13,107 / 255 [bar]	unsigned	25ms
6		pwat		range=0..13,107 [bar], phys = int * 13,107 / 255 [bar]	unsigned	25ms
7		pfuel		range=0..13,107 [bar], phys = int * 13,107 / 255 [bar]	unsigned	25ms
4	2	pamb.msb		range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	25ms
5		pamb.lsb		range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	25ms
6		mappos		range=0..255, phys = int * 1	unsigned	25ms
7		tair		range=-40..215 [°C], phys = int - 40 [°C]	unsigned	25ms
4	3	fuellap.msb		range=0..23,456 [l], phys = int * 23,456 / 65536 [l]	unsigned	25ms
5		fuellap.lsb		range=0..23,456 [l], phys = int * 23,456 / 65536 [l]	unsigned	25ms
6		fueltank.msb		range=-187,648..187,642 [l], phys = int * 375,296/ 65536 [l]	signed	25ms
7		fueltank.lsb		range=-187,648..187,642 [l], phys = int * 375,296/ 65536 [l]	signed	25ms
4	4	tfuel		range=-40..215 [°C], phys = int - 40 [°C]	unsigned	25ms
5		toil		range=-40..215 [°C], phys = int - 40 [°C]	unsigned	25ms
6		tlam		range=-40..1235 [°C], phys = int * 5 - 40 [°C]	unsigned	25ms
7		tlam_2		range=-40..1235 [°C], phys = int * 5 - 40 [°C]	unsigned	25ms
4	5	tmot		range=-40..215 [°C], phys = int - 40 [°C]	unsigned	25ms
5		tex		range=-40..1235 [°C], phys = int * 5 - 40 [°C]	unsigned	25ms
6		tex_2		range=-40..1235 [°C], phys = int * 5 - 40 [°C]	unsigned	25ms
7		ddulEds		oillamp_b: 6, battlow_b:5, shled5_b:4, shled4_b:3, shled3_b:2, shled2_b:1, shled1_b:0	unsigned	25ms

		ID = 0x77C	Boost Pressures, Wastegate (without boost2license_b)		
byte	**row**	**label**	**range, conversion formula**	**type**	**raster**
0	-	p22_m.msb	range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	5ms
1	-	p22_m.lsb	range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	5ms
2	-	p22_2m.msb	range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	5ms
3	-	p22_2m.lsb	range=0..6553,5 [mBar], phys = int * 6553,5 / 65535 [mBar]	unsigned	5ms
4	-	p22_sp	range=0..6553,5 [mBar], phys = int * 25,7 [mBar]	unsigned	5ms
5	-	-	-	-	5ms
6	-	wgdc	range=0..100[%], phys = int *100 / 255 [%]	unsigned	5ms
7	-	wgdc_2	range=0..100[%], phys = int *100 / 255 [%]	unsigned	5ms

Receive messages:

		ID = 0x24A	ABS wheelspeeds		
byte	**bit**	**label**	**range, conversion formula**	**type**	**raster**
0	0..7	speedABSfl	Lowbyte wheelspeed front left (16 bit), phys = int * 0.015625 [m/s]	unsigned	10 ms
1	0..7		Highbyte wheelspeed front left (16 bit), phys = int * 0.015625 [m/s]		
2	0..7	speedABSfr	Lowbyte wheelspeed front right (16 bit), phys = int * 0.015625 [m/s]	unsigned	10 ms
3	0..7		Highbyte wheelspeed front right (16 bit), phys = int * 0.015625 [m/s]		
4	0..7	speedABSrl	Lowbyte wheelspeed rear left (16 bit), phys = int * 0.015625 [m/s]	unsigned	10 ms
5	0..7		Highbyte wheelspeed rear left (16 bit), phys = int * 0.015625 [m/s]		
6	0..7	speedABSrr	Lowbyte wheelspeed rear right (16 bit), phys = int * 0.015625 [m/s]	unsigned	10 ms
7	0..7		Highbyte wheelspeed rear right (16 bit), phys = int * 0.015625 [m/s]		

		ID = 0x5C0	ABS switch state, slip and speed		
byte	**bit**	**label**	**range, conversion formula**	**type**	**raster**
0	0..7	switchstateABS	Position of ABS switch	unsigned	10 ms
1	0..7	p_HzABS	Lowbyte of brake pressure main cylinder (16Bit), phys = int * 0.0153 [bar]	signed	10 ms
2	0..7		Highbyte of brake pressure main cylinder (16Bit), phys = int * 0.0153 [bar]		
3	0	blsABS	Brake light switch	unsigned	10 ms
3	1..7	Not used			
4	0..7	ax1_Bremse60ABS	Lowbyte longitudinal acceleration (16Bit), phys = int * 0.00012742 – 4.1768 [g]	unsigned	10 ms
5	0..7		Highbyte longitudinal acceleration (16Bit), phys = int * 0.00012742 – 4.1768 [g]		
6	0..7	ay1_Bremse60ABS	Lowbyte lateral acceleration (16 bit), phys = int * 0.00012742 – 4.1768 [g]	unsigned	10 ms
7	0..7		Highbyte lateral acceleration (16 bit), phys = int * 0.00012742 – 4.1768 [g]		

		ID = 0x100	Gearbox control unit 1 receive		
byte	**bit**	**label**	**range, conversion formula**	**type**	**raster**
0	0..7	gearGCU	Engaged gear, range= -1.5...6.5, phys = int * 0.5 – 1.5	unsigned	10 ms
1	0..7			signed	10 ms
2	0..7				
3	0..7			unsigned	10 ms
4	0..7	revtrgtGCU	Lowbyte revtrgtGCU, range 0..16383 (14 Bit), phys = int * 1 [1/min]	unsigned	10 ms
5	0..5		Highbyte revtrgtGCU , range 0..16383 (14 Bit), phys = int * 1 [1/min]		
5	6..7				
6	0..7	cutlevelGCU	Range 0.. 4.9999992, phys = 0.01960784 * int [V]	unsigned	10 ms
7	0..3				
7	4	blipreqGCU_b	bit	bit	
7	5	cutreqGCU_b	bit	bit	
7	6..7				

NOTE:

If you want to use wheel speeds from ABS modul, you have to set baudrate of CAN 2 to the baudrate of your ABS modul. You can select baudrate of CAN 2 using parameter CAN2BAUDRATE_CW from function CANCORE. There are 500 kBaud and 1000 kBaud available. Changes to baudrate take effect after reset of the ECU.

Hinweis:

Falls das ABS Modul zur Erfassung der Radgeschwindigkeiten verwendet werden soll, muß die Baudrate des CAN2 auf die Baudrate des ABS Moduls eingestellt werden. Die Baudrate des CAN2 kann mit Hilfe des Paramters CAN2BAUDRATE_CW der Funktion CANCORE eingestellt werden. Es sind 500kBaud und 1000kBaud verfügbar. Änderungen der Baudrate werden nach dem Reset des Steuergerätes wirksam.