

TC6MOD 1.5 Test Communication CARB; Mode 6, Output Test Thresholds

Structure of the protocol is described in--> %TCCOM

Mode 6 should give access to the current test results and test thresholds from not continuously tested functions.

TID \$00 ► Bit coded transfer from control unit supported TID s. (must be in Mode 6 and is generated by TC6MODx.y)

With the TID's \$20; \$40; \$60; \$80; \$A0; \$C0 and \$E0 with analogue procedure.

For TID's ≥ 1 the following applies:

Byte 1: TID the selected function, see table below
Byte 2: Number of saved value blocks

Byte 9-14: if applicable 2. Value block analog Byte 3-8
 Byte 15-20: if applicable 3. Value block analog Byte 3-8
 etc.

Conversion Label	Data 3 bin (Nr.)	Data 4+5 Value	Data 6+7 Threshold	component	comment
	0 0000001 (1)	kkagw	AFBKAT	Kat. Bank1	count Matrix element with AV's > limit
	0 0000010 (2)	kkagw2	AFBKAT	Kat. Bank2	count Matrix element with AV's >

Conversion Label	Data 3 bin (Nr.)	Data 4+5 Value	Data 6+7 Threshold	component	comment
1	0000011 (3)	spdfrrp	DFRSLS	SLV-Bank 1	Delta fr with pump on
1	0000100 (4)	spdfrrp2	DFRSLS2	SLV-Bank 1	Delta fr with pump on bank 2
0	0001011 (11)	tmaxdsls	TWFRDLS	SLS-Bank 1	Time-Out for B_fmax =1
0	0001100 (12)	tmaxdsls	TWFRDLS	SLS-Bank 1	Time-Out for B_fmax2 =1

Conversion	Data 3	Data 4+5	Data 6+7	component	comment
Label	bin (Nr.)	Value	Threshold		
	1 0000101 (5)	dpsaug	PRDAGR1	EGR-System B1	Pressure method

TID \$05 Tank Ventilation System

Choice of two alternative methods via variant coding:

- A. vk_mot1.b4 = 1 > System test
 B. vk_mot1.b4 = 0 > TEV-Check using pressure modulation

A. System Test:

96 ms	0 0001001 (9)	tdteab	TDTEGR	TE	vacuum pressure diagn., large leak
0.238 hPa	1 0001010 (10)	pttrk	DDPTEKU	TE	vacuum pressure diagn., TEV-Fault
0.238 hPa	1 0001011 (11)	pttr	DDPTEAV	TE	vacuum pressure diagn., AAV-Fault
	0 0001101 (13)	qudg	GGQTED	TE	vacuum pressure diagn., micro leak

B. TEV-Check

Conversion	Data 3	Data 4+5	Data 6+7	component	comment
Label	bin (Nr.)	Value	Threshold		
	1 0011101 (29)	dtevs	dtevm	TEV	Pressure modulation TEV Bank 1
	1 0011110 (30)	dtevs2	dtevm2	TEV	Pressure modulation TEV Bank 2

TID \$06 Probe Heating no output, because of continual testing.

TID \$07 Catalytic-Heating no output, because of no electrical catalytic heating.

TID \$08 Camshaft Adjustment

Conversion	Data 3	Data 4+5	Data 6+7	component	comment
Label	bin (Nr.)	Value	Threshold		
	1 0000001 (1)	dpsnws	PRDNWS	NoWe-Steller	dnwss/dnws intake manifold pressure stroke
	1 0000010 (2)	dpsnws2	PRDNWS	NoWe-St. B2	dnws2s/dnws2m intake manifold pressure stroke (only 12-cyl.)

TID \$09 Fuel Supply System

Conversion	Data 3	Data 4+5	Data 6+7	component	comment
Label	bin (Nr.)	Value	Threshold		
	0 0000001 (1)	fra_b1h	FRADX	KVS	dfrax1/dfraxm multiple Adaptation value
	1 0000001 (1)	fra_b1h	FRADN	KVS	dfrax1/dfraxm multiple Adaptation value
	0 0000010 (2)	fra_b2h	FRADX	KVS	dfrax2/dfraxm multiple Adaptation value
	1 0000010 (2)	fra_b2h	FRADN	KVS	dfrax2/dfraxm multiple Adaptation value
	0 0000011 (3)	tra_b1*	TRADX	KVS	trax1/traxm add. Adaptation value
	1 0000011 (3)	tra_b1*	TRADN	KVS	trax2/tranm add. Adaptation value
	0 0000100 (4)	tra_b2*	TRADX	KVS	trax2/traxm add. Adaptation value
	1 0000100 (4)	tra_b2*	TRADN	KVS	tran2/tranm add. Adaptation value
	0 0000101 (5)	dtv_b1*	DTVDX	KVS	dtv1 add. Adaptation value - Bank 1 (ts-Fault)
	1 0000101 (5)	dtv_b1*	DTVDN	KVS	dtv1 add. Adaptation value - Bank 1 (ts-Fault)
	0 0000110 (6)	dtv_b2*	DTVDX	KVS	dtv2 add. Adaptation value - Bank 1 (ts-Fault)
	1 0000110 (6)	dtv_b2*	DTVDN	KVS	dtv2 add. Adaptation value - Bank 1 (ts-Fault)

* Advice: 6 bits from low-, 2 bits from high-byte

In the ME-systems the measurements- and thresholds are copied in a reserved RAM-area and pass from there to the output. The name of the saved RAM-cells, as well as the timing of the storage are (sorted by functions) are summarized in the following list:

Mode 6, ME1.0
25.09.95, SD

Funct./TID	Value	from	Threshold	from	at	UMR	Meas.	W-block	Comment
DKAT	KATWH	00h	KATSH	00h				01	
	KATWL	kkagw1	KATSL	afbkat	katrdyz > TWRDYKAT	DEZ	01h		
	KATWH2	00h	KATSH2	00h				02	Bank2 or CAN
DSLS	KATWL2	kkagw2	KATSL	afbkat	katrdyz > TWRDYKAT	DEZ	02h		
	SLSXWH	00h	SLSXSH	00h				01	
	SLSXWL	tmaxdsls	SLSXSL	twfrdsls	LR on limit	TQ100	0Bh		
	SLSNWH	fr-frslsa	SLSNSH	dfrsls				02	
	SLSNWL	fr-frslsa	SLSNSL	dfrsls	tmindsls > tdsls	FPC50L	83h		
	SLSXWH2	00h	SLSXSH2	00h				03	Bank2 or CAN
	SLSXWL2	tmaxdsls	SLSXSL2	twfrdsls	LR on limit	TQ100	0Ch		
	SLSNWH2	fr-frslsa	SLSNSH2	dfrsls				04	Bank2 or CAN
	SLSNWL2	fr-frslsa	SLSNSL2	dfrsls	tmindsls > tdsls	FPC50L	84h		CAN

										Mode 6 ME1.0
Function/TID	Value	from	Threshold	from	at	UMR	Meas.	W-block	Comment	
DTES	TESGGWH	00h	TESGGSH	00h				01		
	TESGGWL	gudauf	TESGGSL	ggrrted	z_tesg = 1	UPTGR	84h		gross leak Gradient	
	TESGPWH	00h	TESGPSH	00h				02		
	TESGPWL	pttr-pttrv	TESGPSL	PAAVMIN	z_tesg = 1	UDPTO	8Eh		gross leak Pressure	
	TESGTWH	00h	TESGTSH	00h				03		
	TESGTWL	tdteab	TESGTSL	tdtegr	z_tesg = 1	TQ400	05h		gross leak Hose off	
	TESTTWH	00h	TESTTSH	00h				04		
	TESTTWL	pttr	TESTTSL	ddptetv	z_tes = 1	UDPTO	86h		TEV-Test TEV	
	TESTGWH	00h	TESTGSH	00h				05		
	TESTGWL	pttrk	TESTGSL	ddpteku	z_tes = 1	UDPTO	83h		TEV- Test Gradient	
	TESTBWH	00h	TESTBSH	00h				06		
	TESTBWL	pttr	TESTBSL	ddptear	z_tes = 1	TQ400	0Ah		TEV- Test Loading	
	TESDOWH	00h	TESDOSH	00h				07		
	TESDOWL	tdteozg	TESDOSL	ttedozg	z_dsto = 1	TQ400	1Ch		Oscill. Pressure Sensor	
	TESATWH	00h	TESATSH	00h				08		
	TESATWL	tdteudw	TESATSL	ttedwu	z_aav = 1	TQ400	1Dh		AAV- Test Pressure	
	TESAPWH	00h	TESAPSH	00h				09		
	TESAPWL	pttr	TESAPSL	ddpteav	z_aav = 1	UDPTO	8Ch		AAV- Test Gradient	
	TESFQWH	00h	TESFQSH	00h				10		
	TESFQWL	qudg	TESFQSL	ggqted	z_tesf = 1	FKT128	07h		fine leak Test Grad.	
	TESFTWH	00h	TESFTSH	00h				11		
	TESFTWL	tdtefl	TESFTSL	tdted	z_tesf = 1	TQ400	89h		fine leak Test Pres.	
	TESTTWH2	00h	TESTTSH2	00h				12		
	TESTTWL2	tdtev	TESTTSL2	tdtegr	z_tes = 1	TQ400	0Bh		TEV-Test TEV left	
	TESTBWH2	dfrdte	TESTBSH2	dfdtm				13		
DTEV	TESTBWL2	dfrdte	TESTBSL2	dfdtm	z_tes = 1	FPC50L	8Dh		TEV-Test Loading left (CAN)	
	TEVWH	00h	TEVSH	00h				01		
	TEVWL	ptevd	TEVSL	ptevg	z_tev 0->1	PABD	9Dh		TEV-Test Press. modulat.	
	TEVWH2	00h	TEVSH2	00h				02		
DNWS	TEVWL2	ptevd	TEVSL2	ptevg	z_tev 0->1	PABD	9Eh		TEV-Test Press. modulat.1	
	NWSWH	00h	NWSSH	00h				01		
	NWSWL	dpsnws	NWSSL	prdnwsi	z_nws 0->1	PABD32	81h		NWS	
	NWSWH2	00h	NWSSH2	00h				02		
	NWSWL2	dpsnws2	NWSSL2	prdnwsi	z_nws 0->1	PABD32	82h		only NWS-12Cyl! (CAN)	

										Mode 6 ME1.0
Function/TID	Value	from	Threshold	from	at	UMR	Meas.	W-block	Comment	
DKVS	KVSFXWH	fra_b1	KVSFXSH	fradx				01		
	KVSFXWL	fra_b1	KVSFXSL	fradx	z_fra 0->1	FPC50L	01h			
	KVSFNWH	fra_b1	KVSFNSH	fradn				02		
	KVSFNWL	fra_b1	KVSFNSL	fradn	z_fra 0->1	FPC50L	81h			
	KVSTXWH	tra_b1	KVSTXSH	tradx				03		
	KVSTXWL	tra_b1	KVSTXSL	tradx	z_tra 0->1	TEQ_CP2L	03h			
	KVSTNWH	tra_b1	KVSTNSH	tradn				04		
	KVSTNWL	tra_b1	KVSTNSL	tradn	z_tra 0->1	TEQ_CP2L	83h			
	KVSDXWH	dtv_b1	KVSTXSH	dtvdx				05		
	KVSDXWL	dtv_b1	KVSTXSL	dtvdx	z_dtv 0->1	TEQ_CP2L	05h			
	KVSDNWH	dtv_b1	KVSTNSH	dtvdn				06		
	KVSDNWL	dtv_b1	KVSTNSL	dtvdn	z_dtv 0->1	TEQ_CP2L	85h			
	KVSFXWH2	fra_b2	KVSFXSH2	fradx				07		
	KVSFXWL2	fra_b2	KVSFXSL2	fradx	z_fra2 0->1	FPC50L	02h		CAN or Bank2	
	KVSFNWH2	fra_b2	KVSFNSH2	fradn				08		
	KVSFNWL2	fra_b2	KVSFNSL2	fradn	z_fra2 0->1	FPC50L	82h		CAN or Bank2	
	KVSTXWH2	tra_b2	KVSTXSH2	tradx				09		
	KVSTXWL2	tra_b2	KVSTXSL2	tradx	z_tra2 0->1	TEQ_CP2L	04h		CAN or Bank2	
	KVSTNWH2	tra_b2	KVSTNSH2	tradn				10		
	KVSTNWL2	tra_b2	KVSTNSL2	tradn	z_tra2 0->1	TEQ_CP2L	84h		CAN or Bank2	
	KVSDXWH2	dtv_b2	KVSDXSH2	dtvdx				11		
	KVSDXWL2	dtv_b2	KVSDXSL2	dtvdx	z_dtv2 0->1	TEQ_CP2L	06h		CAN or Bank2	
	KVSDNWH2	dtv_b2	KVSDNSH2	dtvdn				12		
	KVSDNWL2	dtv_b2	KVSDNSL2	dtvdn	z_dtv2 0->1	TEQ_CP2L	86h		CAN or Bank2	

ABK %TC6MOD A 1. 5 Abbreviations

FB %TC6MOD A 1. 5 Functional Descriptions

APP %TC6MOD A 1. 5 Application Instructions