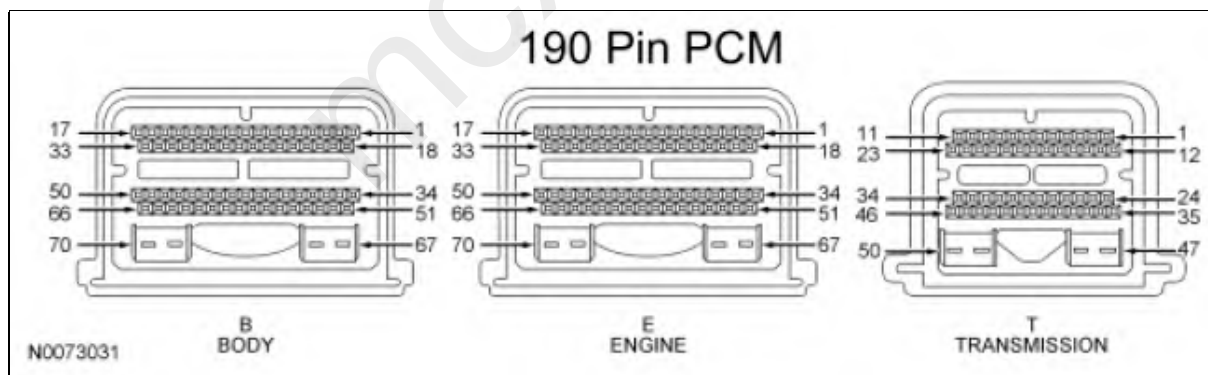


FUELSYS	PID	OPEN LOOP	CLOSED LOOP	CLOSED LOOP	CLOSED LOOP	OPEN/CLOSED LOOP
LONGFT1	PID	(D)	-20 TO +20	-20 TO +20	-20 TO +20	%
MIL	PID	OFF	OFF	OFF	OFF	ON/OFF
O2_DS_DISBL	PID	YES	NO	NO	NO	YES/NO
RO2FT1	PID	0	-0.47	2.06	-0.70	%
SHRTFT1	PID	(D)	-10 TO +10	-10 TO +10	-10 TO +10	%
SPARKADV	PID	29.50	12.75	45.50	38	DEG
TQ_CNTRL	PID	ANTI-THEFT	IDLE SPEED CONTROL	NONE REQUESTED	NONE REQUESTED	STATUS
VCTADV	PID	0	-0.37	-0.18	0	DEG
VCTADVERR	PID	0	0.37	0.18	0.12	DEG

Other	PCM Pin/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
VREF	B45/B52/B61/B66 /E35/E57	5	5	5	5	VOLTS
VPWR	B67/B68	VBAT	VBAT	VBAT	VBAT	VOLTS

3.7L TIVCT MKZ

Fig 1: 3.7L TIVCT MKZ PCM Connector



Courtesy of FORD MOTOR CO.

3.7L TIVCT MKZ > TYPICAL DIAGNOSTIC REFERENCE VALUES

Sensors/Inputs	PCM	Measured/PID Values	Units Measured/PID
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	Pin/PID Only	KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
BOO1	B13	OFF	OFF	OFF	OFF	ON/OFF
AAT	B17	40 (104)	40 (104)	29 (84.20)	25 (77)	DEG C (DEG F)
AAT_V	B17	1.94	1.97	2.50	2.69	VOLTS
APP1	B28	0.80	0.80	0.80	0.80	VOLTS
APP2	B29	0.40	0.40	0.40	0.39	VOLTS
FPM	B32	41	40.97	40.41	40.01	%
MAF	B40	0	3.60	12.66	30.65	g/s
BOO2	B46	OFF	OFF	OFF	OFF	ON/OFF
IAT	B47	1.18/55 (131)	1.25/52 (125.60)	1.97/33 (91.40)	2.08/31 (87.80)	VOLTS/DEG C (DEG F)
B+	B62	12.69	14.09	14.27	14.22	VOLTS
FTP	B65	2.62/0 (0)	2.59/0 (0)	2.58/0 (0)	2.17/-0.76 (-0.11)	VOLTS/kPa (PSI)
FTP_H2O	B65	0.03	-0.28	-0.28	-3.14	in-H ₂ O
O2S11_CUR	E23	(I)	switching (C)	switching (C)	switching (C)	uA
O2S21_CUR	E24	(I)	switching (C)	switching (C)	switching (C)	uA
CHT	E39	0.59/88 (190.40)	0.60/87 (188.60)	3.21/101 (213.80)	3.28/99 (210.20)	VOLTS/DEG C (DEG F)
TP1	E41	4.10/17.64	4.33/13.33	4.19/15.68	4.14/16.86	VOLTS/%
KNOCK_1	E43	154	177	238	230	N/A
TP2	E58	1.23/24.70	0.76/15.29	1.03/20.39	1.14/22.74	VOLTS/%
KNOCK_2	E60	116	107	257	260	N/A
O2S12	T29	0.84	0.89	0.82	0.75	VOLTS
O2S22	T40	0.18	0.89	0.78	0.72	VOLTS
HTRCM22	T48	0	705	732	732	mA
HTRCM12	T49	0	683	705	705	mA
AC_REQ	PID	NO	NO	NO	NO	YES/NO
APP	PID	0	0	0	0	%
APP_MAXDIFF	PID	0	0	0	0	DEG
APP_MODE	PID	NO PEDAL	NO PEDAL	PART PEDAL	NO PEDAL	NO PEDAL/PART PEDAL
APP1 (APP_D)	PID	16.07	16.07	16.07	15.68	%
APP2 (APP_E)	PID	7.84	7.84	7.84	7.84	%

BARO	PID	94.94 (13.77)/152.45 /381.39	94.94 (13.77)/152.45 /381.39	94.94 (13.77)/152.45 /381.39	94.94 (13.77)/152.45 /381.39	kPa (PSI)/Hz/in-H ₂ O
BRKOV _R _ACTION	PID	1	1	1	1	NUMERIC VALUE
BRKOV _R D_POSS	PID	12	12	12	12	NUMERIC VALUE
DECHOKE	PID	YES	NO	NO	NO	YES/NO
DIST_BRKOV _R D	PID	31.48 (19.56)	31.48 (19.56)	31.48 (19.56)	33.47 (20.80)	KM (MILES)
EONV_RDY	PID	NOT READY	NOT READY	NOT READY	NOT READY	READY/NOT READY
EQ_RAT11	PID	0/0:1	0.99/14.54:1	1.01/14.83:1	0.99/14.43:1	RATIO
EQ_RAT21	PID	0/0:1	1/14.59:1	0.99/14.48:1	0.98/14.41:1	RATIO
ETC_ACT	PID	8.05	2.26	5.03	11.64	DEG
ETC_TRIM	PID	0.38	0.38	0.37	0.37	DEG
FLI	PID	98.43	98.43	98.43	98.43	%
INJPWR_M	PID	12.76	14.03	14.28	14.20	VOLTS
LOAD	PID	0	34.51	47.05	81.96	%
MISFIRE	PID	NO	NO	NO	NO	YES/NO
MP_LRN	PID	YES	YES	YES	YES	YES/NO
NUM_MISFIRE	PID	0	0	0	0	COUNT
O2S11_IMP _E D	PID	5	0.09	0.09	0.09	VOLTS
O2S11_READY	PID	NO	YES	YES	YES	YES/NO
O2S11_TR	PID	23.40	23.40	23.40	23.40	Kohm
O2S21_IMP _E D	PID	5	0.09	0.09	0.09	VOLTS
O2S21_READY	PID	NO	YES	YES	YES	YES/NO
O2S21_TR	PID	42.60	42.60	42.60	42.60	Kohm
RPM	PID	0	601.25	1282	1772.25	RPM
SYNC	PID	YES	YES	YES	YES	YES/NO
TP1_LRN_TRIM	PID	15	15	15	15	DEG
TP2_LRN_TRIM	PID	7.75	7.75	7.75	7.75	DEG
TPMODE	PID	PT	CT	PT	PT	CLOSED/PART/WIDE OPEN THROTTLE
VCT_EXH_ACT1	PID	0	0.06	22.31	0.87	DEG
VCT_EXH_ACT2	PID	0	-0.06	21.87	0.62	DEG
VCT_EXH_DIF1	PID	0	-0.06	-0.25	-1	DEG
VCT_EXH_DIF2	PID	0	0.06	0.06	-0.62	DEG
VCT_INT_ACT1	PID	0	0	-9.62	-10.31	DEG
VCT_INT_ACT2	PID	0	-0.12	-9.87	-9.93	DEG

VCT_INT_DIF1	PID	0	0	-0.37	0.31	DEG
VCT_INT_DIF2	PID	0	0.12	-0.18	0	DEG
VSS	PID	0	0	48 km/h (30 MPH)	89 km/h (55 MPH)	km/h/MPH

Actuators/Outputs	PCM Pin/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
FP	B19	75/OFF	37/ON	36.86/ON	36.87/ON	%/ON/OFF
EVAPCV	B20	0/OFF	0/OFF	0/OFF	0/OFF	%/ON-OFF
VCT_EXH_DC2	E18	0	0	45.54	0	%
EVAPCP	E32	0	13.31	17.09	60.79	%
VCT_EXH_DC1	E52	0	0	43.32	0	%
VCT_INT_DC1	E67	0	0	46.04	44.34	%
VCT_INT_DC2	E68	0	0	46.35	45.86	%
HTR11	E69	OFF	ON	ON	ON	ON/OFF
O2S11_HTR	E69	21.17	34.90	29.41	30.19	%
HTR21	E70	OFF	ON	ON	ON	ON/OFF
O2S21_HTR	E70	21.17	37.25	31.37	29.80	%
HTR22	T48	OFF	ON	ON	ON	ON/OFF
HTR12	T49	OFF	ON	ON	ON	ON/OFF
ETC [TAC_PCT]	PID	9.80	2.35	5.88	14.11	%
EVAP020C	PID	NO	NO	NO	NO	YES/NO
EVAPSOAK	PID	NO	NO	NO	NO	YES/NO
EVAPSTA	PID	NOT RUNNING	NOT RUNNING	NOT RUNNING	NOT RUNNING	STATUS
FUELSYS	PID	OPEN LOOP	CLOSED LOOP	CLOSED LOOP	CLOSED LOOP	OPEN/CLOSED LOOP
LONGFT1	PID	(I)	-20 TO +20	-20 TO +20	-20 TO +20	%
LONGFT2	PID	(I)	-20 TO +20	-20 TO +20	-20 TO +20	%
MIL	PID	OFF	OFF	OFF	OFF	ON/OFF
O2_DS_DISBL	PID	YES	YES	NO	NO	YES/NO
RO2FT1	PID	0	-0.87	-1.48	-1.57	%
RO2FT2	PID	0	-0.87	-1.47	1.63	%
SHRTFT1	PID	(I)	-10 TO +10	-10 TO +10	-10 TO +10	%
SHRTFT2	PID	(I)	-10 TO +10	-10 TO +10	-10 TO +10	%