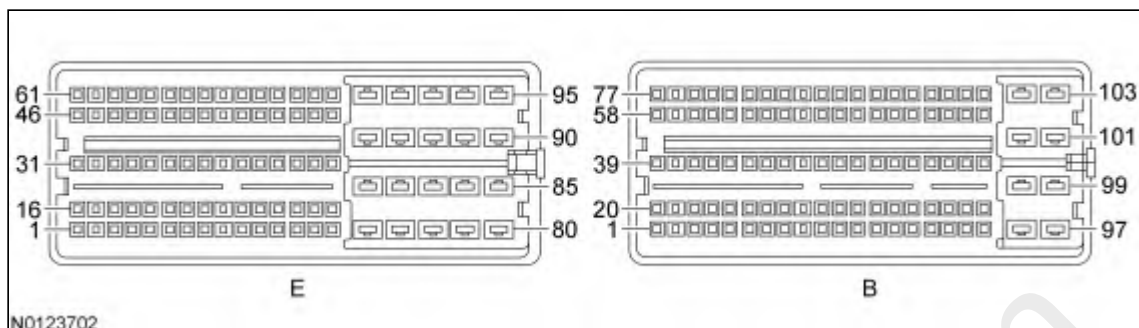


3.5L F-150**198 Pin PCM****Typical Diagnostic Reference Values**

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
AAT	AAT Sensor	6 (42.8)	6 (42.8)	6 (42.8)	7 (44.6)	DEG C (DEG F)
AAT_V	AAT Sensor	3.69	3.69	3.67	3.66	VOLTS
AC_REQ	PID	NO	NO	NO	NO	YES/NO
APP	APP Sensor	0	0	12	15.50	%
APP1	APP Sensor	0.77	0.77	1.16	1.28	VOLTS
APP1 (APP_D)	APP Sensor	15.29	15.29	23.13	25.49	%
APP2	APP Sensor	0.39	0.39	0.59	0.64	VOLTS
APP2 (APP_E)	APP Sensor	7.84	7.84	11.76	12.94	%
APP_MAXDIFF	PID	0	0	0	0	DEG
B+	PID	12.57	14.50	14.50	14.52	VOLTS
BARO	PID	97 (14.07) 154.28	97 (14.07) 154.28	97 (14.07) 154.28	97 (14.07) 154.28	kPa (PSI)/ Hz
BOO1	BPP Switch	OFF	OFF	OFF	OFF	ON/OFF
BOO2	BPP Switch	OFF	OFF	OFF	OFF	ON/OFF
BRKOV RD_POSS	PID	148	148	148	148	NUMERIC VALUE
BRKOV R_ACTION	PID	0	0	0	0	NUMERIC VALUE
CAC_T	CACT Sensor	26 (78.8)	23 (73.4)	21 (69.8)	25 (77)	DEG C (DEG F)

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
CAC_V	CACT Sensor	2.38	2.54	2.64	2.45	VOLTS
CHT	CHT Sensor	3.46/89 (192.2)	2.37/91 (195.8)	3.13/96 (204.8)	3.03/96 (204.8)	VOLTS/DEG C (DEG F)
CLRDIST	PID	1047.77 (651.05)	1047.77 (651.05)	1051.77 (653.54)	1050.77 (652.92)	KM (MILES)
CRNKCAS_PRS	Crankcase Pressure Sensor	-154 (-0.02)	-133 (-0.02)	-154 (-0.02)	148 (0.02)	Pa (PSI)
CRNKCAS_P_V	Crankcase Pressure Sensor	3.90	3.91	3.84	4	VOLTS
DECHOKE	PID	YES	NO	NO	NO	YES/NO
DIST_BRKOVDR	PID	236.35 (146.86)	236.35 (146.86)	240.35 (149.35)	239.35 (148.73)	KM (MILES)
EONV_RDY	PID	NOT READY	NOT READY	NOT READY	NOT READY	READY/NOT READY
EQ_RAT11	PID	0:1	14.62:1	14.63:1	14.63:1	RATIO
EQ_RAT21	PID	0:1	14.56:1	14.67:1	14.71:1	RATIO
ETC_ACT	PID	7.14	1.60	4.21	12.89	DEG
ETC_TRIM	PID	-0.13	-0.13	-0.13	-0.13	DEG
FLI	Fuel Level Sensor	69.41 (H)	69.41 (H)	67.05 (H)	69.41 (H)	%
FLP	Fuel Pressure Sensor	536 (77.74)	544.50 (78.97)	522.50 (75.78)	495.50 (71.87)	kPa (PSI) DEG C (DEG F)
FLP_V	Fuel Pressure Sensor	2.64	2.68	2.59	2.57	VOLTS
FPM	PID	61	60.03	60.99	60.07	%
FRP	FRP Sensor	3.01/16330 (2368.47)	2.61/13690 (1985.57)	1.77/8300 (1203.81)	3.05/16900 (2451.14)	VOLTS/kPa (PSI)
FTP	FTP Sensor	2.64/38 (0.01)	2.26/-624 (-0.09)	1.81/-1420 (-0.20)	2.56/-108 (-0.02)	VOLTS/Pa (PSI)
FTP_H2O	FTP Sensor	0.137	-2.51	-5.65	-0.44	NUMERIC VALUE
HTRCM12	HO2S12 Sensor	0	0	0	0	mA
HTRCM22	HO2S22 Sensor	0	0	0	0	mA
IAT	IAT Sensor	2.74/18 (64.4)	2.64/16 (60.8)	2.75/18 (64.4)	2.85/16 (60.8)	VOLTS/DEG C (DEG F)
IAT2	IAT2 Sensor	27 (80.6)	27 (80.6)	35 (95)	35 (95)	VOLTS/DEG C (DEG F)
IAT2_V	IAT2 Sensor	2.35	2.32	1.96	1.97	VOLTS/DEG C (DEG F)
KEYST	Ignition Switch	ON	ON	ON	ON	ON/OFF
KNK_CNTR_CYL1	PID	0	0	0	0	COUNT
KNK_CNTR_CYL2	PID	6	6	6	6	COUNT

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
KNK_CNTR_CYL3	PID	5	5	5	5	COUNT
KNK_CNTR_CYL4	PID	1	1	1	1	COUNT
KNK_CNTR_CYL5	PID	2	2	2	2	COUNT
KNK_CNTR_CYL6	PID	2	2	2	2	COUNT
KNOCK_1	KS1 Sensor	999	49	90	139	COUNT
KNOCK_2	KS2 Sensor	999	43	50	121	COUNT
LOAD	PID	0.00 (I)	30.19	64.70	72.54	%
LONGFT1	PID	(I)	-20 TO +20	-20 TO +20	-20 TO +20	%
LONGFT2	PID	(I)	-20 TO +20	-20 TO +20	-20 TO +20	%
MAP	MAP Sensor	97 (14.07)	38 (5.51)	38 (5.51)	91 (13.20)	kPa (PSI)
MAP_GAUGE	MAP Sensor	(I)	63 (9.14)	24 (3.48)	10 (1.45)	kPa (PSI)
MAP_V	MAP Sensor	1.48	0.59	1.16	1.39	VOLTS
MIL_DIS	PID	0 (0)	0 (0)	0 (0)	0 (0)	KM (MILES)
MISFIRE	PID	NO	NO	NO	NO	YES/NO
MP_LRN	PID	YES	YES	YES	YES	YES/NO
NUM_MISFIRE	PID	0	0	1	1	COUNT
O2S11_CUR	HO2S11 Sensor	(I)	switching	switching	switching	mA/uA
O2S11_IMP	HO2S11 Sensor	5	1.02	1.02	1.03	VOLTS
O2S11_READY	HO2S11 Sensor	NO	YES	YES	YES	YES/NO
O2S11_TR	HO2S11 Sensor	0	155.80	155.80	155.80	Kohm
O2S12	HO2S12 Sensor	(I)	switching (D)	switching (D)	switching (D)	VOLTS
O2S21_CUR	HO2S21 Sensor	(I)	switching	switching	switching	mA/uA
O2S21_IMP	HO2S21 Sensor	5	1.03	1.02	1.02	VOLTS
O2S21_READY	HO2S21 Sensor	NO	YES	YES	YES	YES/NO
O2S21_TR	HO2S21 Sensor	0	108.90	109.10	109.10	Kohm
O2S22	HO2S22 Sensor	(I)	switching (D)	switching (D)	switching (D)	VOLTS
OCTADJ_R_LRND	PID	41.75	41.75	41.75	41.75	%
RO2FT1	PID	0	1.51	1.39	0	%
RO2FT2	PID	0	1.51	-1.55	0	%
RPM	CKP Sensor	0	632	1203.50	1470.50	RPM
SHRTFT1	PID	(I)	-10 TO +10	-10 TO +10	-10 TO +10	%

Inputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
SHRTFT2	PID	(I)	-10 TO +10	-10 TO +10	-10 TO +10	%
SYNC	PID	NO	YES	YES	YES	YES/NO
TCBP	TCBP Sensor	97.75 (14.18)	97.83 (14.19)	100.29 (14.55)	104.25 (15.12)	kPa (PSI)
TCBP_V	TCBP Sensor	1.49	1.49	1.53	1.51	VOLTS
TP1	ETBTPS	16.86	11.37	18.03	33.33	%
TP_REL	PID	6.66	1.17	7.84	23.92	VOLTS
TQ_CNTRL	PID	NONE REQUESTED	IDLE SPEED CONTROL	NONE REQUESTED	NONE REQUESTED	STATUS
TURBO_BP1_STAT	TCBY Valve	NO FAULT	NO FAULT	NO FAULT	NO FAULT	FAULT/ NO FAULT
VCTSYS	PID	OPEN LOOP	CLOSED LOOP	CLOSED LOOP	CLOSED LOOP	OPEN LOOP/ CLOSED LOOP
VCT_EXH_ACT1	PID	0	0.06	50.68	19.81	DEG
VCT_EXH_ACT2	PID	0	-0.18	51	20.68	DEG
VCT_EXH_DIF1	PID	0	-0.06	-0.68	-0.06	DEG
VCT_EXH_DIF2	PID	0	0.18	-1.31	-1.12	DEG
VCT_INT_ACT1	PID	0	-0.06	-0.18	-0.06	DEG
VCT_INT_ACT2	PID	0	0.12	0	0	DEG
VCT_INT_DIF1	PID	0	0.06	0.18	0.06	DEG
VCT_INT_DIF2	PID	0	-0.12	0	0	DEG
VSS	PID	0	0	48 km/h (30 MPH)	89 km/h (55 MPH)	km/h / MPH
WGATE_A_POS_PCT	Turbocharger Wastegate Motor 1	99.94	0	0	99.94	%
WGATE_B_POS_PCT	Turbocharger Wastegate Motor 2	99.94	0	0	99.94	%

Outputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	

Outputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
AEIS_ACTION	PID	0	0	0	0	NUMERIC VALUE
AEIS_POSS	PID	176	176	176	176	NUMERIC VALUE
CACC_FAN	Charge Air Cooler Cooling Fan	0	0	0	0	%
CYL_1-6_ACCL	PID	(I)	-1 TO +1	-1 TO +1	-1 TO +1	NUMERIC VALUE
DIST_AEIS	PID	0 (0)	0 (0)	0 (0)	0 (0)	KM (MILES)
ETC [TAC_PCT]	PID	9.41	1.56	5.09	15.68	%
EVAP020C	PID	NO	NO	NO	NO	YES/NO
EVAPCP	EVAPCP Valve	0	42.80	91.22	84.89	%
EVAPCV	CANV Valve	0/OFF	0/OFF	0/OFF	0/OFF	%/ON-OFF
EVAPPCT	PID	0	42.74	85.49	98.82	%
EVAPSOAK	PID	YES	YES	YES	YES	YES/NO
EVAPSTA	PID	NOT RUNNING	NOT RUNNING	NOT RUNNING	NOT RUNNING	STATUS
EVBV	EVAP Vapor Blocking Valve	0/OPEN	0/OPEN	100/CLOSED	100/CLOSED	%/OPEN-CLOSED
FANDC	PID	7.84	20.78	20.78	18.43	%
FAN_DSD	PID	7.99	20.99	20.99	18.78	%
FP	Fuel Pump Control Module	75/OFF	20.83/ON	20.78/ON	20.93/ON	%/ON/OFF
FRP_DSD	PID	370 (53.66)	2750 (398.85)	2750 (398.85)	13030 (1889.84)	kPa (PSI)
FUELSYS	PID	OPEN LOOP	CLOSED LOOP	CLOSED LOOP	CLOSED LOOP	OPEN LOOP/CLOSED LOOP
F_VCV	Fuel Injection Pump	0	0	0	0	%
HFC	PID	OFF	OFF	OFF	OFF	ON/OFF
HTR11	HO2S11 Sensor	OFF	ON	ON	ON	ON/OFF
HTR12	HO2S12 Sensor	OFF	ON	ON	ON	ON/OFF
HTR21	HO2S21 Sensor	OFF	ON	ON	ON	ON/OFF
HTR22	HO2S22 Sensor	OFF	ON	ON	ON	ON/OFF
INJ1-6_OFF	Injector 1-6	-----	-----	-----	-----	-----/ DISABLE
LFC	PID	OFF	OFF	OFF	OFF	ON/OFF
MIL	PID	OFF	OFF	OFF	OFF	ON/OFF
O2S11_HTR	HO2S11 Sensor	21.56	41.17	30.98	30.98	%
O2S21_HTR	HO2S21 Sensor	21.56	38.82	30.98	30.58	%

Outputs	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
O2_DS_DISBL	PID	YES	NO	NO	NO	YES/NO
PATSENABL	PID	ENABLED	ENABLED	ENABLED	ENABLED	ENABLED/DISABLED
SPARKADV	PID	21.50	4.25	33.75	32.75	DEG
TURBO_BPASS	TCBY Valve	OFF	OFF	OFF	OFF	ON/OFF
VCT_EXH_DC1	VCT12 Solenoid	0	0	79.99	37.83	%
VCT_EXH_DC2	VCT22 Solenoid	0	0	79.99	38.44	%
VCT_INT_DC1	VCT11 Solenoid	0	0	0	0	%
VCT_INT_DC2	VCT21 Solenoid	0	0	0	0	%

Other	Component/PID Only	Measured/PID Values				Units Measured/PID
		KOEO	Hot Idle	48 KM/H (30 MPH)	89 KM/H (55 MPH)	
VPWR	PID	VBAT	VBAT	VBAT	VBAT	VOLTS
VREF	PID	5	5	5	5	VOLTS