ON-BOARD DIAGNOSTIC SYSTEM PID/DATA MONITOR FUNCTION [SKYACTIV-D 2.2]

• The PID/DATA monitor items are shown below.

PID/DATA monitor item table

—: Not applicable

Item	Definition	Unit/Condition
AC_PRES	Refrigerant pressure	KPa {MPa}, mBar {Bar}, psi, in H20
AC_REQ	A/C request signal	Off/On
ACCS	A/C relay	Off/On
ALTT V	Generator output voltage	V
AMB_TEMP	Ambient air temperature	°C, °F
APP1	APP sensor No.1 voltage	V
	APP sensor No.1	%
APP2	APP sensor No.2 voltage	V
	APP sensor No.2	%
ARPMDES	Target engine speed	RPM
BARO	Barometric pressure	KPa {MPa}, mBar {Bar}, psi, in H20
BATT_CUR	Battery current	A
BATT_DAY	Number of days elapsed since current sensor initialization	—
BATT_RES	Battery internal resistance (estimated)	—
BATT_SOC	Battery charge condition (estimated)	%
BATT_TEMP	Battery temperature	°C, °F
BATT_V	Battery voltage	V
BBP	Power brake unit vacuum sensor	KPa {MPa}, mBar {Bar}, psi, in H20
BFP	Brake fluid pressure	KPa {MPa}, mBar {Bar}, psi, in H20
BOO	Brake switch (No.1 signal)	High/Low
BPA	Brake switch (No.2 signal)	High/Low
CACT12	Boost air temperature	°C, °F
CC_DIFP_WOA	Actual difference in phase between camshaft and crankshaft (no correction)	° (deg)
CLR_DIST	Distance after DTC cleared	—
CLU_CUT_SW[*1]	Starter interlock switch	Off/On
CLU_SW[*1]	CPP switch	Off/On
COMP_BPV	Compressor bypass valve	Off/On
CPP[*1]	Clutch pedal position	%
CPP/PNP[*1]	Shift lever position	Off/On
DPF_LMP	Diesel particulate filter indicator light	Off/On
DPF_LMP_CNT	Number of times diesel particulate filter indicator light illuminated	—
DPF_REG_CNT	Diesel particulate filter regeneration count	—
ECT	Engine coolant temperature	°C, °F
EGR_C_BP	EGR cooler bypass valve	%
EGR_C_BP_ACT	Actual measured EGR cooler bypass valve opening angle	%
EGR_LRN	EGR valve learning value (closed condition)	V
EGRP	EGR valve	%
EGRP_ACT	EGR valve actual opening angle	%
EOP	Engine oil pressure	KPa {MPa}, mBar {Bar}, psi, in H20
EOT	Engine oil temperature	°C, °F
EXHPRES1	Exhaust gas pressure (No.1)	KPa {MPa}, mBar {Bar}, psi, in H20
EXHPRESS_DIF	Exhaust gas pressure (No.2)	KPa {MPa}, mBar {Bar}, psi, in H20
EXHTEMP	Exhaust gas temperature (No.1)	°C, °F
EXHTEMP1	Exhaust gas temperature (No.2)	°C, °F
EXHTEMP2	Exhaust gas temperature (No.3)	°C, °F
FAN_DUTY	Fan control module No.1	%
FAN_DUTY2	Fan control module No.2	%

Item	Definition	Unit/Condition
FI_LRN_01	Fuel injection learning value (fuel injector No.1 at 35 MPa {357 kgf/cm^2, 5076 psi})	—(µs)
FI_LRN_02	Fuel injection learning value (fuel injector No.2 at 35 MPa {357 kgf/cm^2, 5076 psi})	—(µs)
FI_LRN_03	Fuel injection learning value (fuel injector No.3 at 35 MPa {357 kgf/cm^2, 5076 psi})	—(µs)
FI_LRN_04	Fuel injection learning value (fuel injector No.4 at 35 MPa {357 kgf/cm^2, 5076 psi})	—(µs)
FI_LRN_11	Fuel injection learning value (fuel injector No.1 at 65 MPa {663 kgf/cm^2, 9427 psi})	—(µs)
FI_LRN_12	Fuel injection learning value (fuel injector No.2 at 65 MPa {663 kgf/cm^2, 9427 psi})	—(µs)
FI_LRN_13	Fuel injection learning value (fuel injector No.3 at 65 MPa {663 kgf/cm^2, 9427 psi})	—(µs)
FI_LRN_14	Fuel injection learning value (fuel injector No.4 at 65 MPa {663 kgf/cm^2, 9427 psi})	—(µs)
FI_LRN_21	Fuel injection learning value (fuel injector No.1 at 100 MPa {1020 kgf/cm^2, 14504 psi})	—(µs)
FI_LRN_22	Fuel injection learning value (fuel injector No.2 at 100 MPa {1020 kgf/cm^2, 14504 psi})	—(µs)
FI_LRN_23	Fuel injection learning value (fuel injector No.3 at 100 MPa {1020 kgf/cm^2, 14504 psi})	—(µs)
FI_LRN_24	Fuel injection learning value (fuel injector No.4 at 100 MPa {1020 kgf/cm^2, 14504 psi})	—(µs)
FI_LRN_31	Fuel injection learning value (fuel injector No.1 at 140 MPa {1428 kgf/cm^2, 20305 psi})	—(µs)
FI_LRN_32	Fuel injection learning value (fuel injector No.2 at 140 MPa {1428 kgf/cm^2, 20305 psi})	—(µs)
FI_LRN_33	Fuel injection learning value (fuel injector No.3 at 140 MPa {1428 kgf/cm^2, 20305 psi})	—(µs)
FI_LRN_34	Fuel injection learning value (fuel injector No.4 at 140 MPa {1428 kgf/cm^2, 20305 psi})	—(µs)
FI_LRN_41	Fuel injection learning value (fuel injector No.1 at 197 MPa {2009 kgf/cm^2, 28572 psi})	—(µs)
FI_LRN_42	Fuel injection learning value (fuel injector No.2 at 197 MPa {2009 kgf/cm^2, 28572 psi})	—(µs)
FI_LRN_43	Fuel injection learning value (fuel injector No.3 at 197 MPa {2009 kgf/cm^2, 28572 psi})	—(µs)
FI_LRN_44	Fuel injection learning value (fuel injector No.4 at 197 MPa {2009 kgf/cm^2, 28572 psi})	—(µs)
FIA_DSD	Supply pump flow desired value	—(mm^3/Stroke)
FIP_FL	Supply pump flow control current	A
FIP_SCV	Suction control valve	A
FP_DUTY	Supply pump duty cycle	%
FP_RCV	Fuel pressure relief valve operation time	—(ms)
FRP	Common rail pressure	KPa {MPa}, mBar {Bar}, psi, in H20
FRP_DSD	Common rail pressure desired value	KPa {MPa}, mBar {Bar}, psi, in H20
FRT	Fuel temperature inside the fuel supply line	°C, °F
GPC_DUTY	Glow plug coil duty cycle	%
HTR11	A/F sensor heater control	%
IAT	Intake air temperature (No.1)	°C, °F
IAT13	Intake air temperature (No.2)	°C, °F
INGEAR[*2]	Gears are engaged	Off/On
INJ_AL_DIS	Distance travelled when automatic fuel injection amount learning	km, ft, mi
INJ_AL_FRQ	Number of times automatic fuel injection amount learning is completed	—

Item	Definition	Unit/Condition
INJ_WL_DIS	Distance travelled when fuel injection amount learning at service factory	km, ft, mi
INJ_WL_FRQ	Number of times fuel injection amount learning is completed at service factory	—
INJ1_CMP	Fuel injector No.1 correction value	—(mm^3/Stroke)
INJ2_CMP	Fuel injector No.2 correction value	—(mm^3/Stroke)
INJ3_CMP	Fuel injector No.3 correction value	—(mm^3/Stroke)
INJ4_CMP	Fuel injector No.4 correction value	—(mm^3/Stroke)
ISV_ACT	Intake shutter valve control actual value	° (deg)
ISV_DSD	Intake shutter valve control desired value	%
		° (deg)
ISV_LRN_C	Intake shutter valve learning value (closed)	° (deg)
ISV_POS	Intake shutter valve	%
LOAD	Engine load	%
M_GEAR[1]	Manual gear position	Neutral/1st gear/2nd gear/ 3rd gear/4th gear/5th gear/ 6th gear/Reverse/ Undefined/Auto/ In_Progress/YSF/Error
MAF	Mass air flow	g/Sec
MAP	Manifold absolute pressure (No.2)	KPa {MPa}, mBar {Bar}, psi, in H20
MIL	Check engine light	Off/On
MIL_DIS	Travelled distance since check engine light illuminated	km, ft, mi
O2	Oxygen concentration in exhaust gas	%
O2S_IMP	A/F sensor element impedance	ohm
O2S11	A/F sensor	V
O2S11_CAL	A/F sensor calibration value	—
O2S11_MODE	A/F sensor activation status	—
OIL_DIL	Engine oil dilution amount	kg, lb
OIL_P_DUTY	Engine oil pressure control circuit duty cycle	%
OILCHG_DIS	Distance from the last engine oil change	km, ft, mi
PCVHC	Blow-by heater control	%
PM_ACC	PM accumulation amount	—(g/l)
PM_ACC_DSD	PM accumulation amount desired	—(g/l)
PM_GEN	PM generation amount	—(g/l)
PN_SW[2]	Park/Neutral position determination	Open/Closed
REG_DIS	Distance since last diesel particulate filter regeneration	km, ft, mi
REGV	Regulating valve	%
REGVP	Regulating valve position sensor	%
REGVP_DSD	Regulating valve position desired value	%
REV_SW	Reverse position determination	Off/On
RPM	Engine speed	RPM
SED_SW	Sedimentor switch	Off/On
TB_LRN_FRQ	Frequency of completed turbocharger learning	—
TCA_CINP	Manifold absolute pressure (No.1)	KPa {MPa}, mBar {Bar}, psi, in H20
VPWR	Battery positive voltage	V
VSS	Vehicle speed	KPH, MPH
WGV	Wastegate solenoid valve	%
WT_LEV_CNT	Number of times sedimentor switch operates	—

[1] : MTX

[2] : ATX