

08 GRP08b FSCM

Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
Fuel System Control Module:								
Fuel Rail Pressure (FRP) Sensor Performance (Rationality)	P0191	This DTC detects if the fuel pressure sensor is stuck within the normal operating range	Absolute value of change in fuel pressure as sensed during intrusive test.	<= 30 kPa	<ul style="list-style-type: none"> 1. FRP Circuit Low DTC (P0192) 2. FRP Circuit High DTC (P0193) 3. FuelPump Circuit Low DTC (P0231) 4. FuelPump Circuit High DTC (P0232) 5. FuelPump Circuit Open DTC (P023F) 6. Reference Voltage DTC (P0641) 7. Reference Voltage DTC (P0641) 8. Reference Voltage DTC (P0642) 9. Fuel Pump Control Module Driver Over-temperature DTC's (P064A, P1255) 10. Control Module Internal Performance DTC (P0606) 11. Engine run time 12. Emissions fuel level (PPEI \$3FB) 13. Fuel pump control 14. Fuel pump control state 15. Engine fuel flow 16. ECM fuel control system failure (PPEI \$1ED) 	<ul style="list-style-type: none"> not active not active not active not active not active not active not failed this trip not active not active not active >=5 seconds not low enabled normal or FRP Rationality control > 0.14 g/s (LY7) > 0.14 g/s (LZ4) > 0.10 g/s (LE5) failure has not occurred 	<p><u>Frequency:</u> Continuous; 12.5 ms loop. 60 seconds between intrusive tests that pass</p> <p>Intrusive test requested if fuel system is clamped or fuel pressure error <= 2 kPa for >= 5 seconds; otherwise report pass</p> <p>Duration of intrusive test is fueling related (5 to 12 seconds).</p>	DTC Type A

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Component/System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
Fuel Rail Pressure (FRP) Sensor Circuit Low Voltage	P0192	This DTC detects if the fuel pressure sensor circuit is shorted to low	FRP sensor voltage	< 0.1 V	Ignition OR HS Comm OR Fuel Pump Control AND Reference Voltage DTC P0641	Run or Crank enabled enabled not active	72 test failures in 80 test samples 1 sample/12.5 ms	DTC Type B
Fuel Rail Pressure (FRP) Sensor Circuit High Voltage	P0193	This DTC detects if the fuel pressure sensor circuit is shorted to high	FRP sensor voltage	> 4.9 V	Ignition OR HS Comm OR Fuel Pump Control AND Reference Voltage DTC P0641	Run or Crank enabled enabled not active	72 test failures in 80 test samples 1 sample/12.5 ms	DTC Type B
Fuel Pump Control Circuit Low Voltage	P0231	This DTC detects if the fuel pump control circuit is shorted to low	Fuel Pump Current	> 14.48A	Ignition OR HS Comm OR Fuel Pump Control AND Ignition Run/Crank Voltage	Run or Crank enabled enabled 9V < voltage < 18V	72 test failures in 80 test samples if Fuel Pump Current <100A 3 test failures in 15 test samples if Fuel Pump Current >=100A 1 sample/12.5 ms	DTC Type A
Fuel Pump Control Circuit High Voltage	P0232	This DTC detects if the fuel pump control circuit is shorted to high	Voltage measured at fuel pump circuit	> 3.86 V	Commanded fuel pump output Fuel pump control enable Time that above conditions are met	0% duty cycle (off) False >=4.0 seconds	36 test failures in 40 test samples 1 sample/12.5 ms Pass/Fail determination made only once per trip	DTC Type A

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Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
Fuel Pump Control Circuit (Open)	P023F	This DTC detects if the fuel pump control circuit is open	Fuel Pump Current AND Fuel Pump Duty Cycle	<=0.5A >20%	Ignition OR HS Comm OR Fuel Pump Control AND Ignition Run/Crank Voltage	Run or Crank enabled enabled 9V < voltage < 18V	72 test failures in 80 test samples 1 sample/12.5 ms	DTC Type A
Fuel System Control Module Enable Control Circuit	P025A	This DTC detects if there is a fault in the fuel pump control enable circuit	PPEI (PPEI (Powertrain Platform Electrical Interface) Fuel System Request (\$1ED)	≠ Fuel Pump Control Module Enable Control Circuit	Ignition OR HS Comm OR Fuel Pump Control AND PPEI Fuel System Request (\$1ED)	Run or Crank enabled enabled valid	72 test failures in 80 test samples 1 sample/12.5 ms	DTC Type A
Control Module Read Only Memory (ROM)	P0601	This DTC will be stored if any software or calibration check sum is incorrect	Calculated Checksum (CRC16)	≠ stored checksum for any of the parts (boot, software, application calibration, system calibration)	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	1 failure if it occurs during the first ROM test of the ignition cycle, otherwise 5 failures Frequency: Runs continuously in the background	DTC Type A
Control Module Not Programmed	P0602	Indicates that the FSCM needs to be programmed	This DTC is set via calibration, when KeMEMD_b_NoStartCa l	TRUE	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	Runs once at power up	DTC Type A

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Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
Control Module Long Term Memory Reset	P0603	Non-volatile memory checksum error at controller power-up	Checksum at power-up	≠ checksum at power-down	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	1 failure Frequency: Once at power-up	DTC Type A
Control Module Random Access Memory (RAM)	P0604	Indicates that control module is unable to correctly write and read data to and from RAM	Data read	≠ Data written	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	1 failure if it occurs during the first RAM test of the ignition cycle, otherwise 5 failures Frequency: Runs continuously in the background.	DTC Type A
Control Module Internal Performance 1. Main Processor Configuration Register Test 2. Processor clock test	P0606	This DTC indicates the FSCM has detected an internal processor fault or external watchdog fault (PID 2032 can tell what causes the fault.)	1. For all I/O configuration register faults: •Register contents 2. For Processor Clock Fault: •EE latch flag in EEPROM. OR • RAM latch flag.	Incorrect value. 0x5A5A 0x5A	Ignition OR HS Comm OR Fuel Pump Control 1. For all I/O configuration register faults: •KeMEMD_b_ProcFitCfgRegE nbl 2. For Processor Clock Fault: •KeMEMD_b_ProcFitCLKDiag Enbl	Run or Crank enabled enabled TRUE TRUE	Tests 1 and 2 1 test failure Frequency: Continuously (12.5ms) Test 3 3 test failures in 15 test samples Frequency: 1 sample/12.5 ms	DTC Type A

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Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
3. External watchdog test			3. For External Watchdog Fault: • Software control of viper chip.	Control Lost	3. For External Watchdog Fault: •KeFRPD_b_FPExtWDogDiag Enbl	TRUE		
Control Module Long Term Memory (EEPROM) Performance	P062F	Indicates that the NVM Error flag has not been cleared	Last EEPROM write	Did not complete	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	1 test failure Once on controller power- up	DTC Type A

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Component/System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
5 Volt Reference Circuit (Short High/Low)	P0641	Detects a continuous short on the #1 5V sensor reference circuit	Reference voltage AND Output OR Reference voltage AND Output OR Reference voltage AND Output	>= 0.5V inactive >= 5.5V active <= 4.5V active	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	15 test failures in 20 test samples 1 sample/12.5 ms	DTC Type A
Fuel Pump Control Module Performance - Driver Over Temperature 1	P064A	This DTC detects if an internal fuel pump driver overtemperature condition exists under normal operating conditions. (Motorola's responsibility)	Module Range of Operation AND Viper Temp	Normal (- FSCM is in normal operating range for module voltage versus PWM duty cycle. Linear range from 100% @ 12.5V to 70% @ 18V.) >190C	Ignition OR HS Comm OR Fuel Pump Control KeFRPD_b_FPOverTempDiagEnbl Ignition Run/Crank	Run or Crank enabled enabled TRUE 9V<voltage<18V	3 test failures in 15 test samples 1 sample/12.5 ms	DTC Type B
5 Volt Reference Circuit (Out of Range)	P06A6	Detects that the #1 5 V sensor reference circuit is out of range	Reference voltage	> 102.5% nominal (i.e. 5.125V) OR < 97.5% nominal (i.e. 4.875V)	Ignition OR HS Comm OR Fuel Pump Control	Run or Crank enabled enabled	72 test failures in 80 test samples 1 sample/12.5 ms	DTC Type A

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Component/System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
Fuel Pump Flow Performance	P2635	This DTC detects degradation in the performance of the electronic return-less fuel system	Filtered fuel rail pressure error	<p><= Low Threshold (function of desired fuel rail pressure and fuel flow rate. Typical values in the range of -28.4 to -193.5 kPa.)</p> <p>OR</p> <p>> High Threshold (function of desired fuel rail pressure and fuel flow rate. Typical values in the range of 19.5 to 166.5 kPa.)</p> <p>Please see attached worksheet for threshold values</p>	<p>1. FRP Circuit Low DTC (P0192)</p> <p>2. FRP Circuit High DTC (P0193)</p> <p>3. Fuel Rail Pressure Sensor Performance DTC (P0191)</p> <p>4. FuelPump Circuit Low DTC (P0231)</p> <p>5. FuelPump Circuit High DTC (P0232)</p> <p>6. FuelPump Circuit Open DTC (P023F)</p> <p>7. Reference Voltage DTC (P0641)</p> <p>8. Reference Voltage DTC (P0641)</p> <p>9. Reference Voltage DTC (P0642)</p> <p>10. Fuel Pump Control Module Driver Over-temperature DTC's (P064A, P1255)</p> <p>11. Control Module Internal Performance DTC (P0606)</p> <p>12. An ECM fuel control system failure (PPEI \$1ED)</p> <p>13. The Barometric pressure (PPEI \$4C1) signal</p> <p>14. Engine run time</p> <p>15. Emissions fuel level (PPEI \$3FB)</p> <p>16. Fuel pump control</p> <p>17. Fuel pump control state</p> <p>18. Battery Voltage</p> <p>19. Fuel flow rate</p>	<p>not active</p> <p>not active</p> <p>not active</p> <p>not active</p> <p>not active</p> <p>not active</p> <p>not failed this trip</p> <p>not active</p> <p>not active</p> <p>has not occurred</p> <p>valid (for absolute fuel pressure sensor)</p> <p>>= 30 seconds</p> <p>not low</p> <p>enabled</p> <p>normal</p> <p>11V<=voltage<18V</p> <p>> 0.14 g/s AND</p> <p><= Max allowed fuel flow rate as a function of desired rail pressure (Typical values in the range of 10.6 to 29.7 g/s)</p>	<p>Filtered fuel rail pressure error Time Constant = 12.5 seconds</p> <p>Frequency: Continuous 100 ms loop</p>	DTC Type B

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Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
					20. Fuel Pressure Control System	Is not responding to an over-pressurization due to pressure build during DFCO or a decreasing desired pressure command.		

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Component/ System	Fault Code	Monitor Strategy Description	Malfunction Criteria	Threshold Value	Secondary Parameters	Enable Conditions	Time Required	MIL illum.
Control Module Communication Bus "A" Off	U0073	Detects that a CAN serial data bus shorted condition has occurred to force the CAN device driver to enter a bus-off state	Bus Status	Off	HS Communication OR Ignition Run/Crank	Enabled on	5 test failures in 5 samples (5 seconds)	DTC Type B
Lost Communication With ECM/PCM "A"	U0100	Detects that CAN serial data communication has been lost with the ECM	Message \$0C9	Undetected	1. Power mode 2. Ignition Run/Crank Voltage 3. U0073	Run/Crank (11 – 18 V) not active	12 test failures in 12 samples (12 seconds)	DTC Type B

Maximum Fuel Flow above which P02635 is Disabled.

LE5 4 cylinder

		Desired Rail Pressure (kPa)									
		200	250	300	350	400	450	500	550	600	
Battery Voltage	4.5	13.97	13.97	13.97	13.97	11.81162	9.001402	6.307496	3.725319	1.246164	
	6	13.97	13.97	13.97	13.97	11.81162	9.001402	6.307496	3.725319	1.246164	
	7.5	13.97	13.97	13.97	13.97	11.81162	9.001402	6.307496	3.725319	1.246164	
	9	13.97	13.97	13.97	13.97	11.81162	9.001402	6.307496	3.725319	1.246164	
	10.5	13.97	13.97	13.97	13.97	11.81162	9.001402	6.307496	3.725319	1.246164	
	12	13.97	13.97	13.97	13.97	13.97	15.82566	12.98981	10.26972	7.659278	
	13.5	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	15	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	16.5	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	18	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	19.5	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	21	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	22.5	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	24	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	25.5	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
	27	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	
28.5	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97	13.97		

LZ4 HVV6

		Desired Rail Pressure (kPa)									
		200	250	300	350	400	450	500	550	600	
Battery Voltage	4.5	15.87	15.87	15.87	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	6	15.87	15.87	15.87	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	7.5	15.87	15.87	15.87	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	9	15.87	15.87	15.87	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	10.5	15.87	15.87	15.87	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	12	15.87	15.87	15.87	15.87	15.87	15.87	10.2322	7.154196	4.193148	
	13.5	15.87	15.87	15.87	15.87	15.87	15.87	15.87	13.46162	10.38042	
	15	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	16.5	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	18	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	19.5	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	21	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	22.5	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	24	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	25.5	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
	27	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	
28.5	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87	15.87		

LY7 HFV6

		Desired Rail Pressure (kPa)									
		200	250	300	350	400	450	500	550	600	
Battery Voltage	4.5	18.63	18.63	16.89113	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	6	18.63	18.63	16.89113	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	7.5	18.63	18.63	16.89113	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	9	18.63	18.63	16.89113	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	10.5	18.63	18.63	16.89113	13.41423	10.08086	6.882399	3.809369	0.856051	0.01	
	12	18.63	18.63	18.63	18.63	18.63	13.43368	10.2322	7.153846	4.193148	
	13.5	18.63	18.63	18.63	18.63	18.63	18.63	16.66366	13.46162	10.38042	
	15	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	16.5	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	18	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	19.5	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	21	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	22.5	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	24	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	25.5	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
	27	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	
28.5	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63	18.63		

Failure Threshold when estimated rail pressure is ABOVE desired rail pressure
 (Error=Desired Rail Pressure-Estimated Rail Pressure)

LE5, LZ4, and LY7

		Desired Rail Pressure (kPa)								
		200	250	300	350	400	450	500	550	600
Instantaneous Fuel Flow (g/sec)	0	-34.5625	-34.5625	-34.5625	-31.46875	-28.40625	-28.40625	-28.40625	-28.40625	-28.40625
	1.5	-63	-63	-63	-73.5	-84	-84	-84	-84	-84
	3	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	4.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	6	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	7.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	9	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	10.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	12	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	13.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	15	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	16.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	18	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	19.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	21	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	22.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	24	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	25.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	27	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	28.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	30	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	31.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	33	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	34.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	36	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	37.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	39	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
	40.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5
42	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5	
43.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5	
45	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5	
46.5	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5	
48	-64.5	-80.625	-96.75	-112.875	-129	-145.125	-161.25	-177.375	-193.5	

Failure Threshold when estimated rail pressure is BELOW desired rail pressure
 (Error=Desired Rail Pressure-Estimated Rail Pressure)

LE5 4 cylinder

		Desired Rail Pressure (kPa)								
		200	250	300	350	400	450	500	550	600
Instantaneous Fuel Flow (g/sec)	0	55.5	69.375	83.25	97.125	111	124.875	138.75	152.625	166.5
	1.5	55.5	69.375	83.25	97.125	111	124.875	138.75	152.625	166.5
	3	55.5	69.375	83.25	97.125	111	124.875	138.75	152.625	166.5
	4.5	55.5	69.375	83.25	97.125	111	124.875	138.75	152.625	166.5
	6	43.94209	69.375	83.25	97.125	111	124.875	138.75	152.625	166.5
	7.5	31.93222	54.92761	83.25	97.125	111	124.875	138.75	152.625	166.5
	9	19.5	39.91528	65.91313	97.125	111	124.875	138.75	152.625	166.5
	10.5	19.5	24.375	47.89833	76.89866	85	124.875	138.75	152.625	166.5
	12	19.5	24.375	29.25	55.88139	65	100.3831	137.5063	144.4438	151.3813
	13.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	15	19.5	24.375	29.25	17.5	45	75.89114	136.2626	136.2626	136.2626
	16.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	18	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	19.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	21	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	22.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	24	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	25.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626

Instantane	27	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	28.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	30	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	31.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	33	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	34.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	36	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	37.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	39	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	40.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	42	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	43.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	45	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	46.5	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626
	48	19.5	24.375	29.25	34.125	45	75.89114	136.2626	136.2626	136.2626