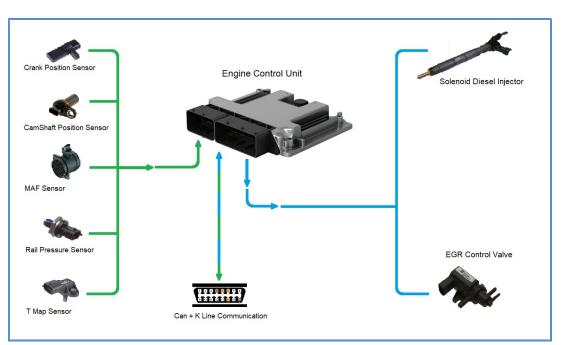


#### CRDI Kit-Open ECU with EGR (Product Code: R&DU04)

## **CRDI Open ECU with EGR**



## **Components of CRDI Open ECU with EGR**

- Crankshaft position sensor (Measures crankshaft position)
- Camshaft position sensor (Measures camshaft position)
- MAF Sensor (Measures mass air flow)
- Rail pressure sensor (Measures common rail pressure)
- T Map sensor (Measures manifold temperature and pressure)
- Engine Control Unit (To Measure sensors and control series of actuators on an internal combustion engine and ensure excellent engine performance)
- Diesel solenoid injector (For fuel injection)
- EGR Valve (Re-circulates controlled flow of exhaust gas into the intake)
- Can + K line (For calibration and Troubleshoot)



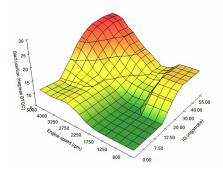


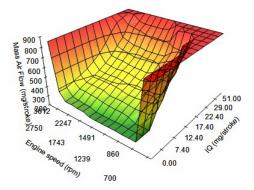
### **CRDI Open ECU with EGR Functionality (Tunable Maps)**

- Set idle Speed (The user can set the required idle speed of the engine)
- Closed loop control for idling (ECU controls the injection until engine idle)
- Start angle of Pilot injection (The user can set the start of injection angle as desired)
- Start angle of main injection- (The user can set the start of injection angle as desired)
- Injection Duration (The user can set the Injection duration in terms of crank angle as desired)
- Closed loop rail pressure (This is an special feature in which an user can set the Injection Pressure in terms Bar, variable from 200 to 1100 bar)
- EGR (The user can set the EGR flow as desired)
- Calibration charts are provided for Injection Quantity at various pressure

MG/ST RPM	0.00	5.00	7.50	10.00	12.50	15.00	20.00	25.00	30.00	35.00	40.00	45.00	55.00	60.00
5000	13.5°	13.5°	13.5°	13.5°	16.1°	18.2°	21.0°	23.7°	25.8°	27.1°	27.6°	28.1*	28.1°	28.1°
4500	13.1°	13.1°	13.1°	13.1°	15.1°	17.5°	20.5°	23, 4°	25.5°	26.8°	27.3°	27.9°	27.9°	27.9°
4000	12.4°	12.4°	12.4°	12.4°	13.8°	15.4°	18.1°	21.0°	23.1°	25.0°	25.9°	27.0°	27.0°	27.0°
3500	11.4°	11.4°	11.4°	11.4°	12.6°	13.7°	15.1°	18.4°	19.9°	21.8°	23.0°	24.1°	24.1°	24.1°
3250	11.0°	11.0°	11.0°	11.0°	11.8°	12.8°	13.3°	15.9°	16.9°	19.0°	21.1°	22.5°	22.5°	22.5°
3000	10.4°	10.4°	10.4°	10.4°	10.9°	11.7°	11.6°	13.8°	15.1°	16.3°	18.6°	19.8°	19.8°	19.8°
2750	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	12.0°	12.7°	14.0°	16.5°	17.6°	17.6°	17.6°
2500	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.5°	11.2°	12.2°	14.7°	15.9°	15.9°	15.9°
2250	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.8°	11.1°	12.5°	14.0°	14.0°	14.0°
2000	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.4°	10.9°	12.0°	12.0°	12.0°
1750	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.1°	10.8°	12.1°	12.1°	12.1°
1500	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.0°	10.1°	11.5°	13.0°	13.0°	13.0°
1250	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°
1000	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°
800	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°	12.0°

MG/ST RPM	0.00	3.00	7.40	10.00	12.40	15.00	17.40	20.00	22.40	25.00	29.00	33.00	51.00
3612	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00
3423	365.00	365.00	395.00	420.00	450.00	495.00	550.00	630.00	720.00	795.00	820.00	850.00	850.00
2750	285.00	295.00	335.00	365.00	385.00	420.00	460.00	510.00	585.00	650.00	760.00	850.00	850.00
2499	285.00	285.00	335.00	365.00	385.00	410.00	450.00	500.00	560.00	625.00	745.00	790.00	850.00
2247	275.00	275.00	325.00	360.00	385.00	410.00	440.00	495.00	545.00	600.00	730.00	775.00	850.00
1995	275.00	275.00	320.00	360.00	385.00	415.00	450.00	480.00	525.00	600.00	710.00	775.00	850.00
1743	250.00	250.00	305.00	330.00	380.00	405.00	445.00	470.00	530.00	585.00	685.00	775.00	850.00
1596	245.00	245.00	295.00	330.00	365.00	390.00	430.00	470.00	535.00	585.00	690.00	775.00	850.00
1491	245.00	245.00	290.00	330.00	350.00	380.00	420.00	460.00	535.00	585.00	690.00	790.00	850.00
1386	245.00	245.00	290.00	320.00	350.00	385.00	435.00	490.00	550.00	590.00	720.00	850.00	850.00
1239	245.00	245.00	275.00	310.00	355.00	410.00	460.00	540.00	590.00	650.00	835.00	850.00	850.00
924	240.00	240.00	240.00	315.00	360.00	405.00	510.00	575.00	620.00	680.00	850.00	850.00	850.00
860	240.00	240.00	240.00	315.00	375.00	425.00	515.00	600.00	620.00	680.00	850.00	850.00	850.00
750	240.00	240.00	240.00	370.00	450.00	574.00	622.00	850.00	850.00	850.00	850.00	850.00	850.00
700	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00
0	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00	850.00







# CRDI Kit-Open ECU with EGR (Product Code: R&DU04)

## **Product / Component Specification**

CRDI Open ECU with EGR								
ECU processor	Infineon							
Crankshaft position	Crank trigger wheel							
Camshaft position	Cam trigger wheel							
Crank position sensor	Variable reluctance sensor							
Cam position sensor	Hall effect sensor							
T-map	NTC							
Mass air flow	Hot wire type							
Software	Engine control system							
High pump	Bosch CP-1							
Fuel Filter	Bosch							
Pre-supply Fuel Pump	Bosch							
Fuel Rail	Bosch							
Connecting pipes	Stainless steel							
Injector	Solenoid Injector							
Motor	Kirloskar 5HP 3 phase							
Open ECU Capabilities	<ul> <li>Set idle Speed - (The user can set the required idle speed of the engine)</li> <li>Closed loop control for idling - (ECU controls the injection</li> </ul>							
	until engine idle)							
	<ul> <li>Start angle of Pilot injection - (The user can set the start of injection angle as desired)</li> </ul>							
	<ul> <li>Start angle of main injection- (The user can set the start of injection angle as desired)</li> </ul>							
	<ul> <li>Injection Duration - (The user can set the Injection duration in terms of crank angle as desired)</li> </ul>							
	<ul> <li>Open loop rail pressure - (This is an special feature in which an user can set the Injection Pressure in terms Bar, variable from 200 to 1100 bar)</li> </ul>							
	• EGR - (The user can set the EGR flow as desired)							
	<ul> <li>Calibration charts are provided for Injection Quantity at various pressure</li> </ul>							