

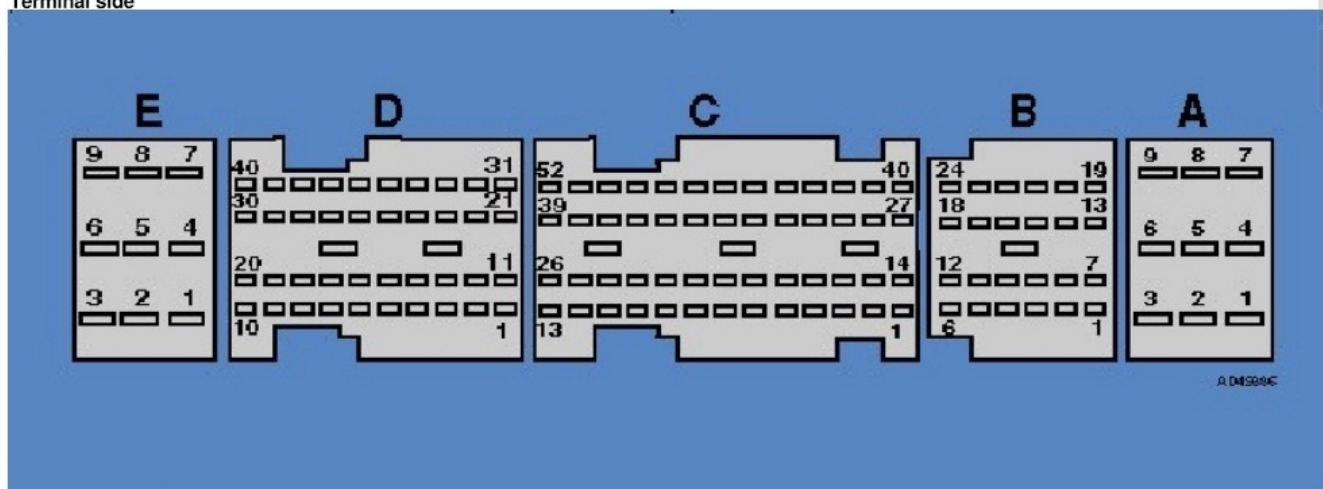


MG ROVER

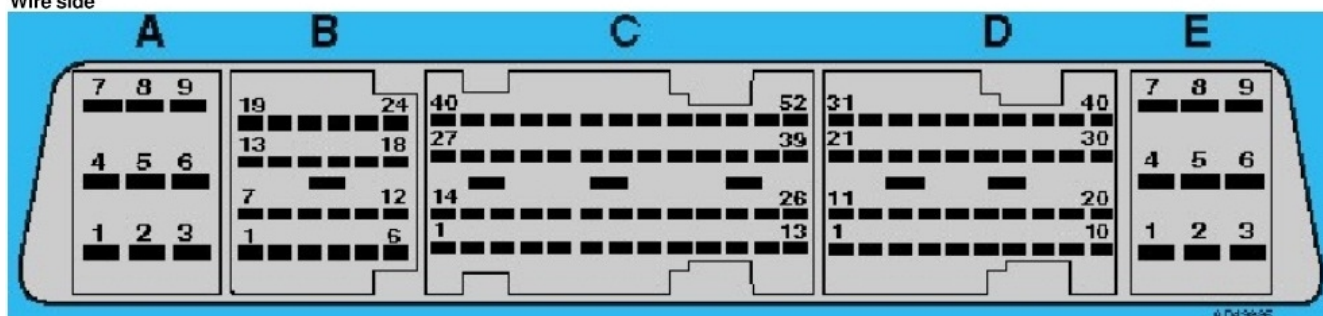
MG ZT 2.0D CDTI 135ps ECU PINOUT

2002-2005

Terminal side



Wire side



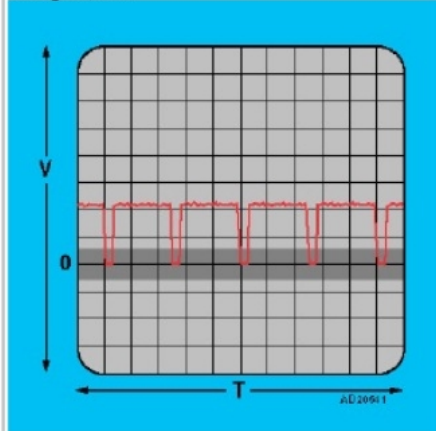
Component/circuit description	ECM pin	Signal	Condition	Typical value	Oscilloscope setting (Suggested settings - Voltage/time per division)	Wave form
ABS control module - vehicle speed signal	D22	←	Ignition ON - vehicle pushed	0-11 V switching		
AC refrigerant triple pressure switch	D29	↔	Ignition ON	11-14 V		
AC refrigerant triple pressure switch	D29	↔	Engine running - AC compressor OFF	11-14 V		
AC refrigerant triple pressure switch	D29	↔	Engine running - AC compressor ON	0-1 V		
Accelerator pedal position (APP) sensor	D7	↔	Ignition ON	0 V		
Accelerator pedal position (APP) sensor	D8	←	Ignition ON - accelerator pedal released	0,8 V		
Accelerator pedal position (APP) sensor	D8	←	Ignition ON - accelerator pedal fully depressed	3,6 V		
Accelerator pedal position (APP) sensor	D9	⇒	Ignition ON	5 V		
Accelerator pedal position (APP) sensor	D12	↔	Ignition ON	0 V		
Accelerator pedal position (APP) sensor	D13	←	Ignition ON - accelerator pedal released	0,4 V		
Accelerator pedal position (APP) sensor	D13	←	Ignition ON - accelerator pedal fully depressed	1,6 V		
Accelerator pedal position (APP) sensor	D14	⇒	Ignition ON	5 V		

Alternator	C50	←	Ignition ON	1 V		
Alternator	C50	←	Engine idling	11-14 V		
Alternator	D1	⇒	Ignition ON	1 V		
Alternator	D1	⇒	Engine running	11-14 V		
Brake pedal position (BPP) switch	D24	←	Ignition ON - brake pedal released	0,2 V		
Brake pedal position (BPP) switch	D24	←	Ignition ON - brake pedal depressed	8,6 V		
Brake pedal position (BPP) switch	D28	←	Ignition ON - brake pedal released	0 V		
Brake pedal position (BPP) switch	D28	←	Ignition ON - brake pedal depressed	11-14 V		
Camshaft position (CMP) sensor	C4	←	Ignition ON	0 or 12 V		
Camshaft position (CMP) sensor	C4	←	Engine idling		5 V/50 ms	 3
Camshaft position (CMP) sensor	C17	↯	Ignition ON	0 V		
CAN data bus - high	D36	↔		Connected pin - no test data available or random digital signal		
CAN data bus - low	D37	↔		Connected pin - no test data available or random digital signal		
Clutch pedal position (CPP) switch	D23	←	Ignition ON - clutch pedal released	0 V		
Clutch pedal position (CPP) switch	D23	←	Ignition ON - clutch pedal depressed	11-14 V		
Crankshaft position (CKP) sensor	C6	←	Ignition ON	2,4 V		
Crankshaft position (CKP) sensor	C6	←	Engine idling	2,1 V ac	2 V/1 ms	 1
Crankshaft position (CKP) sensor	C31	↯	Ignition ON	0 V		
Crankshaft position (CKP) sensor - shield wire	C19	↯	Ignition ON	0 V		
Cruise control module	D27	←		Connected pin - no test data available or random digital signal		
Earth	A4		Ignition ON	0 V		
Earth	A5		Ignition ON	0 V		
Earth	A6		Ignition ON	0 V		
Engine control (EC) relay	A1	←	Ignition OFF	0 V		
Engine control (EC) relay	A1	←	Ignition ON	11-14 V		
Engine control (EC) relay	A8	←	Ignition ON	11-14 V		
Engine control (EC) relay	A9	↯	Ignition OFF	11-14 V		
Engine control (EC) relay	A9	↯	Ignition ON	0-1 V		

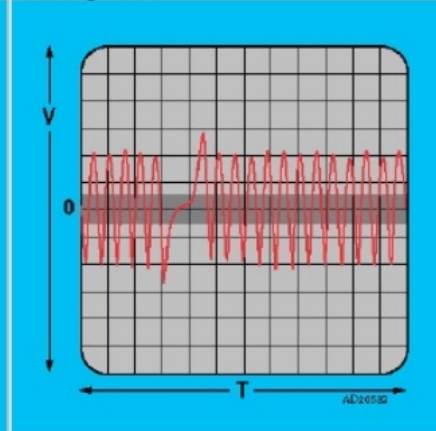
Engine coolant blower motor control module	D4	⇒	Ignition ON - coolant blower motor OFF		5 V/2 ms	 3
Engine coolant blower motor control module	D4	⇒	Engine running - coolant blower motor ON		5 V/2 ms	 48
Engine coolant temperature (ECT) sensor	C28	←	Ignition ON - coolant temp. 20°C	3,5 V		
Engine coolant temperature (ECT) sensor	C28	←	Ignition ON - coolant temp. 80°C	1 V		
Engine coolant temperature (ECT) sensor	C32	⏏	Ignition ON	0 V		
Engine oil pressure switch	C41	←	Ignition ON	0 V		
Engine oil pressure switch	C41	←	Engine running	11-14 V		
Engine oil pressure warning lamp	D11	⇒	Ignition ON	0 V		
Engine oil pressure warning lamp	D11	⇒	Engine running	11-14 V		
Exhaust gas recirculation (EGR) solenoid	C10	⇒	Ignition ON	11-14 V		
Exhaust gas recirculation (EGR) solenoid	C10	⇒	Engine idling		5 V/1 ms	 31
Fuel lift pump relay	D10	⏏	Ignition ON	0-1 V for 1-20 seconds then 11-14 V		
Fuel lift pump relay	D10	⏏	Engine running	0-1 V		
Fuel pressure control solenoid	C38	⇒	Ignition ON		2 V/1 ms	 37
Fuel pressure control solenoid	C38	⇒	Engine idling		2 V/1 ms	 37
Fuel pressure sensor	B9	⇒	Ignition ON	5 V		
Fuel pressure sensor	B10	⏏	Ignition ON	0 V		
Fuel pressure sensor	B17	←	Ignition ON	4,4 V		
Fuel pressure sensor	B17	←	Engine running	4,4 V		
Fuel rail pressure (FRP) sensor	C20	⏏	Ignition ON	0 V		
Fuel rail pressure (FRP) sensor	C33	←	Ignition ON	0,5 V		
Fuel rail pressure (FRP) sensor	C33	←	Engine idling	1,3 V		
Fuel rail pressure (FRP) sensor	C33	←	3000 rpm	2,1 V		
Fuel rail pressure (FRP) sensor	C35	⇒	Ignition ON	5 V		
Glow plug control module	C12	⇒	Ignition ON	11-14 V		
Glow plug control module	C12	⇒	Engine idling - engine hot	11-14 V		
Glow plug control module	C52	←	Ignition ON	1 V		
Glow plug control module	C52	←	Engine running	1 V		
Ignition switch	A7	←	Ignition OFF	0 V		
Ignition switch	A7	←	Ignition ON	11-14 V		
Immobilizer control module	D33	⇔		Connected pin - no test data available or random digital signal		

Injector 1	E4	⇒	Ignition ON	1 V		
Injector 1	E5	⇒	Ignition ON	1 V		
Injector 1	E5 (E4)	⇒	Engine idling	0,3 ms pilot + 0,7 ms main	10 V/0,5 ms	 59
Injector 2	E1	⇒	Ignition ON	1 V		
Injector 2	E3	⇒	Ignition ON	1 V		
Injector 2	E3 (E1)	⇒	Engine idling	0,3 ms pilot + 0,7 ms main	10 V/0,5 ms	 59
Injector 3	E1	⇒	Ignition ON	1 V		
Injector 3	E9	⇒	Ignition ON	1 V		
Injector 3	E9 (E1)	⇒	Engine idling	0,3 ms pilot + 0,7 ms main	10 V/0,5 ms	 59
Injector 4	E4	⇒	Ignition ON	1 V		
Injector 4	E7	⇒	Ignition ON	1 V		
Injector 4	E7 (E4)	⇒	Engine idling	0,3 ms pilot + 0,7 ms main	10 V/0,5 ms	 59
Intake air temperature (IAT) sensor	C29	←	Ignition ON - air temp. 20°C	3,5 V		
Manifold absolute pressure (MAP) sensor	C14	⇒	Ignition ON	5 V		
Manifold absolute pressure (MAP) sensor	C15	←	Ignition ON	1,8 V		
Manifold absolute pressure (MAP) sensor	C15	←	Engine idling	1,8 V		
Manifold absolute pressure (MAP) sensor	C15	←	Engine idling - accelerate briefly	3,4 V briefly		
Manifold absolute pressure (MAP) sensor	C16	↗	Ignition ON	0 V		
Mass air flow (MAF) sensor	C1	⇒	Ignition ON	5 V		
Mass air flow (MAF) sensor	C2	←	Ignition ON	1 V		
Mass air flow (MAF) sensor	C2	←	Engine idling	2 V		
Mass air flow (MAF) sensor	C2	←	3000 rpm	3,5 V		

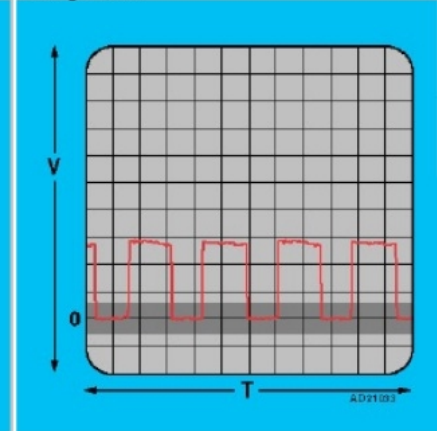
3. Digital, DC



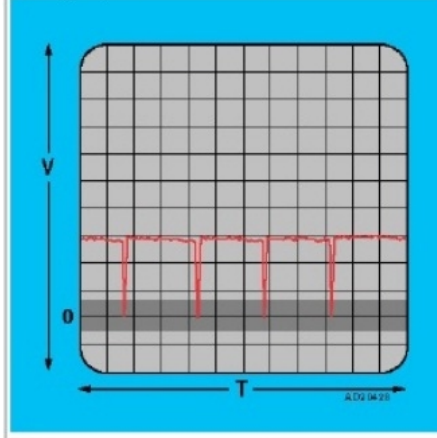
1. Analogue, AC



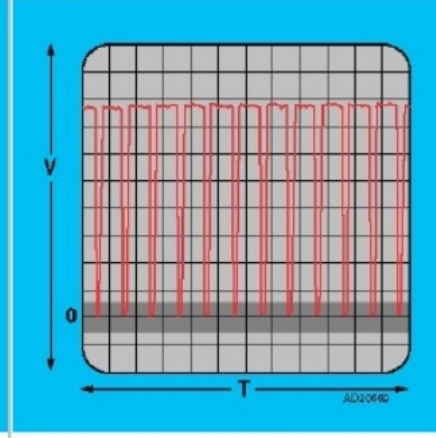
48. Digital, DC



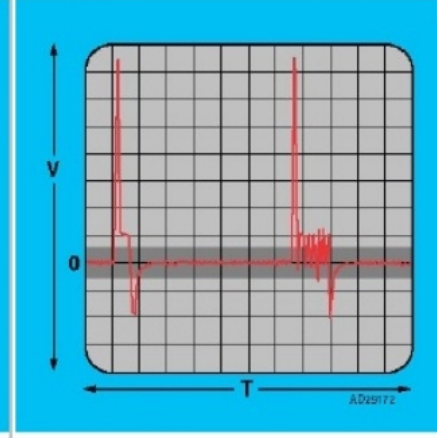
31. Digital, DC



37. Digital, DC



59. Digital, DC



	input/output signal
	input signal
	output signal
	ECM switched earth
	ECM earth circuit