


All values measured to ground unless otherwise noted

Conn./Plug/Pin	Pin Information	Test Value	Comments
<u>N22</u>			
1.1	"Diagnostic port" for readout and diagnostic purpose.  Stored DTC data's are memory persistent	No reliable test. Check continuity to X11/4 pin 16.	Note 1
1.2	In-car temperature signal input, controls aspirator blower.	NTC. Decreasing resistance with increasing temperature. Approx. 20 kOhms at 10 °C, approx. 4.5 kOhms at 45 °C.	Note 1
1.3	Heater core signal input, left side.	NTC. Decreasing resistance with increasing temperature. Approx. 20 kOhms at 10 °C, approx. 4.5 kOhms at 45 °C.	Note 1
1.4	Pin not used		
1.5	Evaporator temperature signal input.	NTC. Decreasing resistance with increasing temperature. Approx. 9 kOhms at 0 °C, approx. 1.2 kOhms at 45 °C.	Note 1
1.6	Pin not used		
1.13	Refrigerant temperature sensor signal input, used to protect A/C compressor when temperature rises	Decreasing resistance with increasing temperature. Approx. 13 kOhms at 20 °C, approx. 2 kOhms at 70 °C	Note 1
1.8	Refrigerant pressure sensor signal input, used to protect A/C compressor when pressure drops.	Approx. 0-5 VDC depending on actual pressure value.	Feed from B12 pin 2
1.9	Sensors common ground, in A/C system.	Approx. 12 VDC to pin 2.8.	Feed from Z6/16
1.10	Serial port II, transmits data Tx - refrigerant pressure - rpm increase to Instrument Cluster (IC). Tx signals are linked on CAN-Bus inside of IC and sent to other ECM.	No reliable test. Approx. 5 VAC when data transmission active.	Note 1
1.11-13	Pins not used		
1.14	Heater core signal input, right side	Decreasing resistance with increasing temperature. Approx. 20 kOhms at 10 °C, approx. 4.5 kOhms at 45 °C	
1.15	Sun sensor signal input, affects blower speed and influences inside temperature	Test conditions: sunshine approx. 2.5 VDC darkness approx. 4.3 VDC	
1.16	Pin not used		
1.17	Refrigerant pressure sensor signal input, used to protect A/C compressor when pressure drops.	Ignition on, lift front of vehicle. Turn left front wheel > 1 rev/sec by hand > 3 VAC or with vehicle moving	
1.18-20	Pins not used		
1.21			
1.22-27	Pins not used		
2.1	Signal output, blower speed control.	Ignition on. > 0.7 VDC with blower set to "min". > 5.0 VDC with blower set to "max".	
2.2,3	Pins not used		

2.4	Recirculated air flap switchover valve Valve (short stroke)	Ignition on. < 1V	
2.5	Valve (long stroke)	< 1V	
2.6	Blend air flap valve	Ignition ON Switch on Display "LO" 11-14V Measure across pins 2.6 and 2.18	
2.7	Circuit 15x, power input.	Ignition on, 12 VDC.	
2.8	Circuit 30, main power input.	12 VDC all times.	Feed from F1f30
2.9	Circuit 15, power input.	Ignition on, 12 VDC.	Feed from F1f20
2.10	RPM increase signal output. Idle speed increases with A/C compressor on.	Engine running. 12 VDC with A/C compressor on (defrost mode), 0 VDC with A/C compressor off (defrost "off").	
2.11-12	Pins not used		
2.13	Footwell flap switchover valve Valve (short stroke)	Ignition on. 11-14V	
2.14	Valve (long stroke)	11-14V	
2.15	Diverter flap valve	Ignition ON Switch on Display "HI" <1V Measure across pins 2.15 and 2.18	
2.16	Auxiliary fan relay stage 2 activation signal output	Ignition on, set air volume selector to max < 1 VDC L/R fans running at high speed	
2.17	Pin not used		
2.18	Switchover valve unit power supply output	Ignition on, 12 VDC	
2.19	Main ground to W1.	Approx. 0 Ohms to ground.	
2.20	Switched ground signal output, activates circulation pump.	Ignition off. Approx. 2-4 Ohms between pin 2.20 and 2.18. Check motor. Pump runs when grounded (Ignition on)	
2.21	Duovalve output	Ignition ON Switch on Display "HI" 11-14V Switch on Display "LO" <1V	
2.22	Defroster nozzle flap switchover valve Valve (short stroke)	Ignition on. < 1V	
2.23	Valve (long stroke)	< 1V	
2.24	Pin not used		
2.25	Voltage output, activates A/C compressor.	A/C system on: Defrost on, EC off. 12 VDC with A/C compressor on. 0 VDC with A/C compressor off.	
2.26-29	Pins not used.		
Note 1	Refer to D. M. Climate Control Vol. 1, 3.2		

