



Signal specification, ABS control module

All values given are between the relevant terminal in column 1 and terminal #A8 or #A24 (ground), unless otherwise indicated in brackets.

Note!

It is important that the breakout box is connected and that the ground terminals have been checked before readings are taken.

U= DC voltage in volts (V) Ubat = battery voltage (V)
 I = current in amperes (A) Ulow = voltage approximately 0 V

| Breakout box terminal | Control module terminal | Signal type | Ignition on | Other |
|-----------------------|-------------------------|--|---|---|
| #A1 | #1 | Front left wheel sensor signal | Tooth against sensor: I≈14 mA U≈9 V Cover against sensor: I≈7 mA U≈10 V (at normal system voltage) | The wheel sensors generate a current for the control module. When the pulse wheel rotates, the sensor generates a pulsed current (quadratic wave) where the strength of the current depends on the position of the pulse wheel. The frequency increases with speed. |
| #A2 | #2 | Front left wheel sensor power supply | U = Ubat | - |
| #A3 | #3 | - | - | - |
| #A4 | #4 | 15l-supply (power supply from ignition switch) | U = Ubat | - |
| #A5 | #5 | Rear left wheel sensor signal | Tooth against sensor: I≈14 mA U≈9 V Cover against sensor: I≈7 mA U≈10 V (at normal system voltage) | The wheel sensors generate a current for the control module. When the pulse wheel rotates, the sensor generates a pulsed current (quadratic wave) where the strength of the current depends on the position of the pulse wheel. The frequency increases with speed. |
| #A6 | #6 | Rear left wheel sensor power supply | U = Ubat | - |
| #A7 | #7 | - | - | - |
| #A8 | #8 | Power and signal ground (measured to battery negative terminal) | U≈Ulow | - |
| #A9 | #9 | 30-supply inlet and outlet valves (power supply from the battery to the intake and exhaust valves) | U≈Ubat | Power supply to the in and outlet valves and signal to the control module. |
| #A10 | #10 | Control modules communication cable (CAN L) | U=2-3V | - |
| #A11 | #11 | Control modules communication cable (CAN H) | U=2-3V | - |
| #A12 | #12 | - | - | - |
| #A13 | #13 | - | - | - |



| | | | | |
|------|-----|---|--|---|
| #A14 | #14 | Stop lamp switch signal (applies only to AWD TRACS) | Open: $U \approx U_{low}$ Closed: $U \approx U_{bat}$. | The stop lamp switch closes when braking. |
| #A15 | #15 | - | - | - |
| #A16 | #16 | - | - | - |
| #A17 | #17 | - | - | - |
| #A18 | #18 | Stop lamp switch signal | Open: $U \approx U_{low}$ Closed: $U \approx U_{bat}$ | The stop lamp switch closes when braking. |
| #A19 | #19 | Front right wheel sensor signal | Tooth against sensor: $I \approx 14 \text{ mA}$ $U \approx 9 \text{ V}$ Cover against sensor: $I \approx 7 \text{ mA}$ $U \approx 10 \text{ V}$ (at normal system voltage) | The wheel sensors generate a current for the control module. When the pulse wheel rotates, the sensor generates a pulsed current (quadratic wave) where the strength of the current depends on the position of the pulse wheel. The frequency increases with speed. |
| #A20 | #20 | Power supply, rear right wheel sensor | $U = U_{bat}$ | - |
| #A21 | #21 | - | - | - |
| #A22 | #22 | Power supply, rear right wheel sensor | $U = U_{bat}$ | The wheel sensor receives 12 V from the control module. |
| #A23 | #23 | Rear right wheel sensor signal | Tooth against sensor: $I \approx 14 \text{ mA}$ $U \approx 9 \text{ V}$ Cover against sensor: $I \approx 7 \text{ mA}$ $U \approx 10 \text{ V}$ (at normal system voltage) | The wheel sensors generate a current for the control module. When the pulse wheel rotates, the sensor generates a pulsed current (quadratic wave) where the strength of the current depends on the position of the pulse wheel. The frequency increases with speed. |
| #A24 | #24 | Power and signal ground (measured to battery negative terminal) | $U \approx U_{low}$ | - |
| #A25 | #25 | 30-supply pump motor (power supply from the battery) | $U \approx U_{bat}$ | - |