

## ***Input and output signals***

*N15/3 ETC control module*

*X11/4 Data link connector*

*Y3/6b1 Transmission oil temperature sensor*

*Y3/6n2 RPM sensor 2*

*Y3/6n3 RPM sensor 3*

*Y3/6s1 Starter lockout contact*

*Y3/6y1 Modulating pressure control solenoid valve*

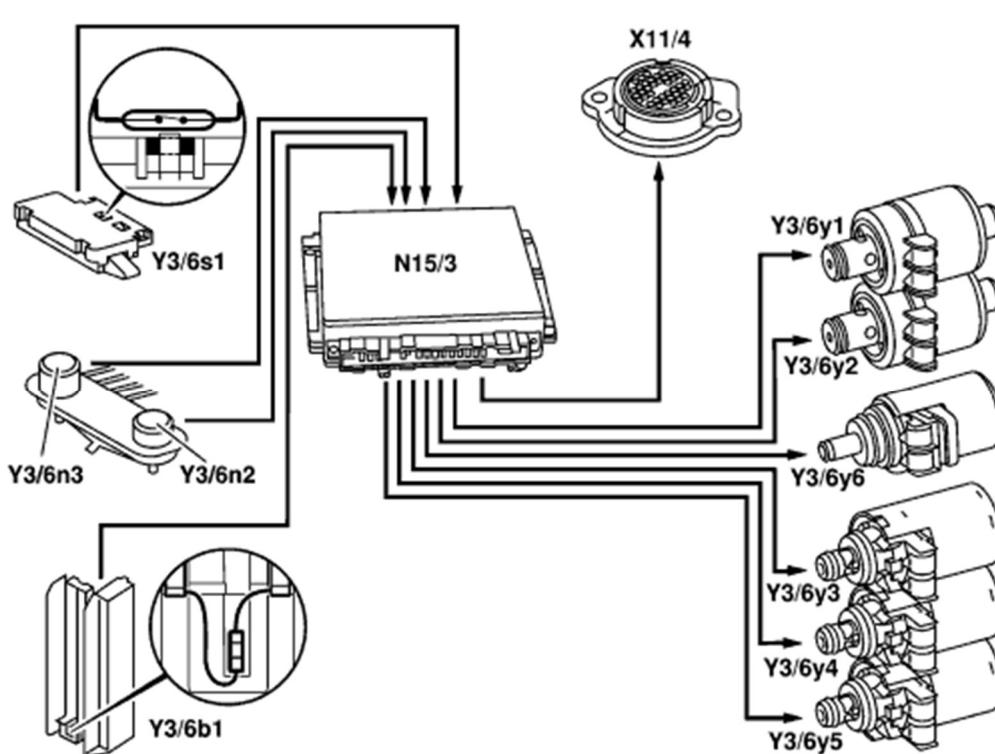
*Y3/6y2 Shift pressure control solenoid valve*

*Y3/6y3 1-2 and 4-5 shift solenoid valve*

*Y3/6y4 3-4 shift solenoid valve*

*Y3/6y5 2-3 shift solenoid valve*

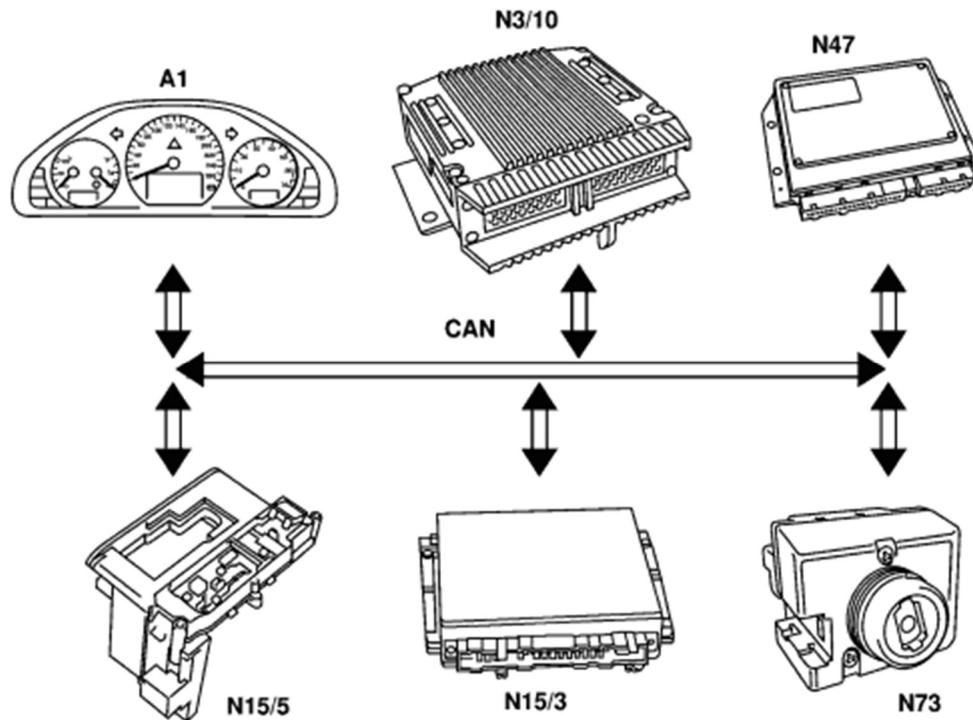
*Y3/6y6 Torque converter lockup PWM solenoid valve*



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## *CAN databus*

*A1 Instrument cluster  
CAN Engine compartment bus  
N3/10 ME-SFI [ME] control module  
N15/3 ETC control module  
N15/5 Electronic selector lever  
control module  
N47 Traction systems control module  
N73 EIS control module*



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## Task

The ETC control module (N15/3) determines the instantaneous operating condition of the vehicle and controls all gearshift sequences taking into account the ease of shifting and the driving situation.

It receives operating data in the form of input signals from:

- Starter lock-out contact (Y3/6s1)
- Transmission oil temperature sensor (Y3/6b1)
- Rpm sensor 2 (Y3/6n2)
- Rpm sensor 3 (Y3/6n3)

In addition there is a connection via the engine compartment bus to the:

- Instrument cluster (A1)
- ME-SFI control module (N3/10) or CDI control module (N3/9)
- Electronic selector lever module control module (N15/5)
- Traction system control module (N47)
- for EIS control module (N73)

The solenoid valves for the modulating and shift pressure and for the gearchanges are actuated by the ETC control module (N15/3).

The pressure required is calculated from all input signals, adjusted to the torque to be transferred.

The following information from other systems is then processed:

### **ME-SFI control module (N3/10) or CDI control module (N3/9)**

- Engine torque
- Engine speed
- Accelerator pedal position
- Gear shift
- Engine status

### **Electronic selector lever module control module (N15/5)**

- Kickdown switch (S16/6)
- Selector lever position
- Transmission mode switch (S16/5)

**Traction system control module (N47)**

- Wheel speeds
- Gear shift
- Traction status

**EIS [EZS] control module (N73)**

The EIS (N73) forms the gateway (link) between the engine compartment bus (CAN-C) and the passenger compartment bus (CAN-B). The ETC transmission control module EGS (N15/3) receives the following input signal via the EIS [EZS] control module (N73) from the AAC pushbutton control module (N22):

- A/C compressor torque

The following information is output to other systems:

**Instrument cluster (A1)**

- Selector lever position / shift range

**Traction system control module (N47)**

- Transmission ratio
- Speeds

**ME-SFI control module (N3/10) or CDI control module (N3/9)**

- Kickdown switch (S16/6)
- Engaged drive mode
- Selector lever position P/N