

Terminal designations

(Excerpts from DIN Standard 72552)

The terminal designations do not identify the conductors, because devices with different terminal designations can be connected at the two ends of each conductor. If the number of terminal designations is not sufficient (multiple-contact connections), the terminals are consecutively numbered using numbers or letters whose representations of specific functions are not standardized.

| Term. | Definition |
|-------|---------------------------------------------------------------------------------------------|
| 1 | Ignition coil, ignition distributor Low voltage |
| | Ignition distributor with two separate electrical circuits |
| 1 a | To ignition contact breaker I |
| 1 b | To ignition contact breaker II |
| 2 | Short-circuit terminal (magneto ignition) |
| 4 | Ignition coil, ignition distributor, high voltage |
| | Ignition distributor with two separate electrical circuits |
| 4 a | From ignition coil I, terminal 4 |
| 4 b | From ignition coil II, terminal 4 |
| 15 | Switched + downstream of battery [output of ignition/driving switch] |
| 15 a | Output at dropping resistor to ignition coil and starter |
| | Glow plug and starter switch |
| 17 | Start |
| 19 | Preheat |
| | Battery |
| 30 | Input from + battery terminal, direct |
| | 12/24 V series-parallel battery switch |
| 30 a | Input from + terminal of battery II |
| 31 | Return line to battery – battery terminal or ground, direct |
| | 12/24 V series-parallel battery switch |
| 31 b | Return line to negative battery terminal or ground, via switch or relay (switched negative) |
| 31 a | Return line to – terminal of battery II |
| 31 c | Return line to – terminal of battery I |

| Term. | Definition |
|-------|-----------------------------------------------------------------------------------------------------------------|
| | Electric motors |
| 32 | Return line ¹⁾ |
| 33 | Main terminal connection ¹⁾ |
| 33 a | Self-parking switch-off |
| 33 b | Shunt field |
| 33 f | For second lower-speed range |
| 33 g | For third lower-speed range |
| 33 h | For fourth lower-speed range |
| 33 L | Counterclockwise rotation |
| 33 R | Clockwise rotation |
| | Starter |
| 45 | Separate starter relay, output; starter, input (main current) |
| | Two-starter parallel operation |
| | Starting relay for engagement current |
| 45 a | Output, starter I |
| | Input, starters I and II |
| 45 b | Output, starter II |
| 48 | Terminal on starter and on start-repeating relay for monitoring starting procedure |
| | Turn-signal flasher (pulse generator) |
| 49 | Input |
| 49 a | Output |
| 49 b | Output, second turn-signal circuit |
| 49 c | Output, third turn-signal circuit |
| | Starter |
| 50 | Starter control (direct) |
| 50 a | Series-parallel battery switch Output for starter control |
| 50 b | Starter control with parallel operation of two starters with sequential control |
| | Starting relay for sequential control of the engagement current during parallel operation of two starters |
| 50 c | Input at starting relay for starter I |
| 50 d | Input at starting relay for starter II |
| | Start-locking relay |
| 50 e | Input |
| 50 f | Output |
| | Start-repeating relay |
| 50 g | Input |
| 50 h | Output |

¹⁾ Polarity reversal possible at terminals 32 — 33.

| Term. | Definition |
|-------|------------------------------------------------------------------------------------------------------|
| | Alternator |
| 51 | DC voltage at rectifier |
| 51 e | DC voltage at rectifier with choke coil for daytime driving |
| | Trailer signals |
| 52 | Signals from trailer to towing vehicle, general |
| | Wiper motor, input (+) |
| 53 | Wiper (+), self-parking switch-off |
| 53 a | Wiper (+), self-parking switch-off |
| 53 b | Wiper (shunt winding) |
| 53 c | Electric windshield-washer pump |
| 53 e | Wiper (brake winding) |
| 53 i | Wiper motor with permanent magnet and third brush (for higher speed) |
| | Trailer signal |
| 54 | For lamp combinations and trailer plug connections |
| | Stop lamp |
| 54 g | Pneum. valve for additional retarding brake, electromagnetically actuated |
| 55 | Fog lamp |
| | Headlamp |
| 56 | High beam, high-beam indicator lamp |
| 56 a | High beam, high-beam indicator lamp |
| 56 b | Low beam |
| 56 d | Headlamp-flasher contact |
| 57 | Side-marker lamp: m-cycles, mopeds. Abroad also cars, trucks, etc. |
| | Parking lamp |
| 57 a | Parking lamp, left |
| 57 L | Parking lamp, left |
| 57 R | Parking lamp, right |
| 58 | Side-marker lamps, tail lamps, license-plate lamps and instrument- panel lamps |
| 58 b | Tail-lamp changeover for single-axle tractors |
| 58 c | Trailer plug-and-receptacle assembly for single-conductor tail-lamp cable with fuse in trailer |
| 58 d | Variable-intensity instrument-panel lamp, tail-lamp and side-marker lamp |
| 58 L | Left |
| 58 R | Right, license-plate lamp |
| | Alternator (magneto generator) |
| 59 | AC voltage, output |
| | Rectifier, input |
| 59 a | Charging armature, output |
| 59 b | Tail-lamp armature, output |
| 59 c | Stop-lamp armature, output |

Term. Definition

61 **Alternator charge-indicator lamp**

Tone-sequence control device

71 Input
 71 a Output to horns 1 & 2, low
 71 b Output to horns 1 & 2, high

72 **Alarm switch**
 (rotating beacon)

75 **Radio, cigarette lighter**

76 **Speaker**

77 **Door-valve control**

Switch

Break-contact and changeover switches

81 Input
 81 a 1st output, break side
 81 b 2nd output, break side

Make-contact switch

82 Input
 82 a 1st output
 82 b 2nd output
 82 z 1st input
 82 y 2nd input

Multiple-position switch

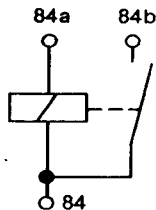
83 Input
 83 a Output, position 1
 83 b Output, position 2
 83 L Output, left-hand position
 83 R Output, right-hand position

Current relay

84 Input, actuator and relay contact

84 a Output, actuator

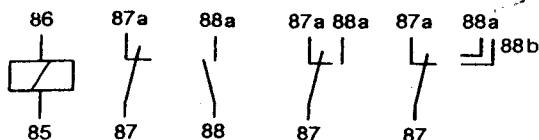
84 b Output, relay contact



Switching relay

85 Output, actuator (end of winding to ground or negative)
 Input, actuator

86 Start of winding
 86 a Start of winding or 1st winding
 86 b Winding tap or 2nd winding



Term. Definition

Relay contact for break and changeover contacts

87 Input
 87 a 1st output (break side)
 87 b 2nd output
 87 c 3rd output
 87 z 1st input
 87 y 2nd input
 87 x 3rd input

Relay contact for make contact

88 Input

Relay contact for make and changeover contacts (make side)

88 a 1st output
 88 b 2nd output
 88 c 3rd output

Relay contact for make contact

88 z 1st input
 88 y 2nd input
 88 x 3rd input

Alternator and voltage regulator

B + Battery positive
 B - Battery negative
 D + Dynamo positive
 D - Dynamo negative
 DF Dynamo field
 DF 1 Dynamo field 1
 DF 2 Dynamo field 2

Alternator

U, V, W Alternator terminals

Directional signals (turn-signal flasher)

C First indicator lamp
 C0 Main terminal connection for separate indicator circuits actuated by the turn-signal switch
 C2 Second indicator lamp
 C3 Third indicator lamp (e.g., when towing two trailers)
 L Turn-signal lamps, left
 R Turn-signal lamps, right

Comparison of terminal designations: DIN 72552 vs. other terminal designations

| DIN 72552 and Bosch | DF | D- | D+ | B+ | F | D+/61 | 61 | 31- |
|-------------------------------|----------|-----|------------|-----------------------------------|-------------|-----------|-----------|----------|
| Autolite | F FLD | - | + | BAT B | Field | ARM A | I | G GND |
| Butec | F | - | + | | | | | |
| Delco Remy | F | GRD | + | BAT B | F | GEN | L | - GND |
| Ducellier | Exc E | - | + | BAT B | Exc | DYN D | | M- |
| Elmot | 67 | 31 | 15 | 30 | 67 | 51/15 | | 31 |
| Femsa | Exc | 31 | + | 30 BAT | 67 Exc | 51 DIN | | 31 |
| Fiat | 67 | 31 | 15 | 30 | 67 | 51/15 | | 31 |
| Ford | | | | BAT | Field | ARM | | G |
| Hitachi | F | E | IG | | | | | |
| Iskra | DF | D- | D+ | B+ | DF | D+ | | D- |
| Japan, other manufacturers | F | E | IG (= 15) | A, B (N = center point of stator) | | | L | E |
| Lada (Shiguli) | 67 | 31 | 15 | 30 | 67 | 51/15 | | 31 |
| Lucas | F | - | + SW=15 | A, B, B+ A1') | F F1, F2 | D | WL IND | E/- |
| Magneton-Pal | M | - | R | +B | M | R | D/61 | -B |
| Marelli | 67 | 31 | 15 | B+ 51 | F DF | D+ | 61 | 31- |
| Mitsubishi | F | E | IG | | | | | |
| Mopar | Exc | - | IGN | | | | | |
| Motorola, SEV-Motorola | Exc | - | + | | | | | |
| Nippon Denso | F | E | B | | | | | |
| Paris-Rhône | Exc | - | + BOB | BAT | Exc | DYN | | M- |
| Prestolite | Exc | - | IGN | | | | | |
| Seri-Ducellier | DF | D- | + | | | | | |
| SEV-Marchal | DF | - | + | | | | | |

FOR DETERMINATION OF ALTERNATOR CONNECTIONS

USE DIN 72552 TO RELATE TERMINAL NOS FROM DIAGRAMS TO TYPE OF ALTERNATOR FITTED