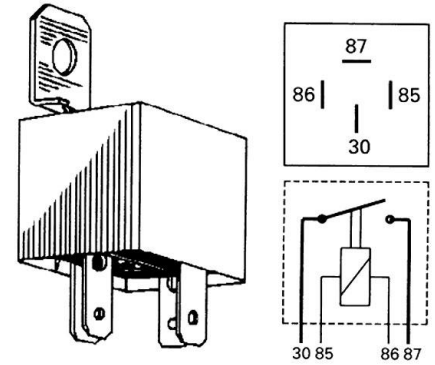


# Who is making that terrible DIN?

12v 30a Normally Open Mini Relay

Undoubtedly there are those amongst us who cannot sleep at night because they wonder what the numbers on the bottom of Automotive Relays actually mean.

You have seen them. The relay coils are labelled **85** and **86**. Contacts are labelled **30**, **87** and **87a**. Who got to say What the numbers were? Why are we still stuck with them? Is it *really* the relay numbers that prevent you from sleeping?



Set the wayback machine to 1917 when the German Institute for Standardisation (*Deutsches Institut für Normung*) was formed, who's name was translated and abbreviated to *DIN standards*. Then fast-forward to when they announced DIN standard 72552 Electrical terminal numbers in automobiles. Yes, there is a list for the designation of almost every wire within a car. They successfully persuaded the auto relay manufacturers to continue to put these codes on their relays, even though they have forgotten why. Sure it is likely that motor vehicle electricians have moved on somewhat since 1917, but don't hold your breath waiting for the numbers to disappear from the bottoms of Chinese made relays displayed on your supermarket peg board.

## The DIN 72552 CODE

Code	Wire Function
1	Coil, distributor - low voltage
1a	To contact breaker I (distributor with 2 separate circuits)
1b	To contact breaker II (distributor with 2 separate circuits)
2	Shorting circuit - magneto ignition
4	Coil, distributor - high voltage
4a	From coil I (distributor with 2 separate circuits)
4b	From coil II (distributor with 2 separate circuits)
7	Ballast resistor terminal to/from distributor
15	Switched + downstream of battery (output of ignition/driving switch)
15a	Output at ballast resistor to coil and starter
17	Glow plug and starter switch - Start
19	Glow plug and starter switch - Preheat
30	Input from battery +, direct 12/24 V series-parallel battery switch
30a	Input from + terminal of battery II
31	Battery negative terminal, or chassis ground, direct
31a	Return line to battery II, negative (12/24 V series-parallel battery switch)
31b	Return line to battery negative terminal, or ground via switch or relay (switched negative)
31c	Return line to battery I, negative (12/24 V series-parallel battery switch)
	<b>Motors</b>
32	Return
33	Main terminal connection
33a	Self-parking switch-off
33b	Shunt field
33f	For 2nd low-speed range
33g	For 3rd low-speed range
33h	For 4th low-speed range
33L	Anticlockwise
33R	Clockwise
	<b>Starters</b>
45	Separate starter relay, output; starter, input (main current) Two-starter parallel operation - Starting relay for engagement current
45a	Output, starter I, Input, starters I and II
45b	Output, starter II
48	Terminal on starter & on repeating relay for monitoring starting procedure
	<b>Turn-signal flashers (pulse generators)</b>
49	Input
49a	Output
49b	Output, 2nd circuit
49c	Output, 3rd circuit
	<b>Starter control</b>

50	Starter control (direct)
50a	Series-parallel battery switch - Output for starter control with parallel operation of two starters with sequential control
50b	Starting relay for sequential control of the engagement current during parallel operation of two starters
50c	Input at starting relay for starter I
50d	Input at starting relay for starter II
50e	Start-locking relay Input
50f	Start-locking relay Output
50g	Start-repeating relay Input
50h	Start-repeating relay Output
	<b>Alternator</b>
51	DC voltage at rectifier
51e	DC voltage at rectifier with choke coil for daytime driving
	<b>Trailer signals</b>
52	Additional signals from trailer to vehicle
	<b>Wiper motors</b>
53	Wiper motor, input (+)
53a	Wiper (+), self-parking switch-off
53b	Wiper (shunt winding)
53c	Electric windshield-washer pump
53e	Wiper (brake winding)
53l	Wiper motor with permanent magnet and 3rd brush (for higher speed)
	<b>Trailer signals (see also 52)</b>
54	Trailer plug connections and lighting combinations, brake light
54g	Pneumatic valve for continuous brake in trailer, solenoid-operated
	<b>Lighting</b>
55	Fog lamp
56	Headlamp
56a	High beam, high-beam indicator lamp
56b	Low beam
56d	Headlamp-flasher
57a	Parking lamp
57L	Parking lamp, left
57R	Parking lamp, right
58	Side-marker, tail, numberplate and instrument panel lamps
58b	Taillight changeover for two-wheeled tractors
58c	Trailer plug and receptacle assembly for single-conductor taillight with fuse in trailer
58d	Variable intensity instrument panel light, tail light and side marker.
58L	Numberplate lamp, left
58R	Numberplate lamp, right
	<b>Alternators and voltage regulators</b>
59	A/c voltage output, rectifier input
59a	Charging armature, output
59b	Tail light armature, output
59c	Brake light armature, output
61	Alternator charge-indicator lamp
B+	Battery +
B-	Battery -
D+	Dynamo +
D-	Dynamo -
DF	Dynamo field
DF1	Dynamo field 1
DF2	Dynamo field 2
U,V,W	Three-phase alternator terminals
	<b>Multi-tone horn and emergency lights</b>
71	Input
71a	Output to horns 1 & 2 low
71b	Output to horns 1 & 2 high
72	Alarm switch - revolving emergency light
	<b>Radio, cigarette lighter</b>
75	Radio, cigar lighter
76	Speakers
77	Door valve control
	<b>Normally closed and changeover switches</b>
81	Input
81a	Output 1, NC side
81b	Output 2, NC side
	<b>Normally open switches</b>
82	Input
82a	Output 1
82b	Output 2
82z	Input 1
82y	Input 2
	<b>Multi-position switches</b>
83	Input

83a	Output, position 1
83b	Output, position 2
83L	Output, left-hand position
83R	Output, right-hand position
	<b>Current relays</b>
84	Input, actuator and relay contact
84a	Output, actuator
84a	Output, relay contact
	<b>Switching relays</b>
85	Output, actuator (end of winding to ground or negative)
86	Input, actuator (start of winding)
86a	Start of winding or 1st winding
86b	Winding tap or 2nd winding
	<b>Relays - N/C and changeover</b>
87	Input
87a	Output 1(NC side)
87b	Output 2
87c	Output 3
87z	Input 1
87y	Input 2
87x	Input 3
	<b>Relays - N/O and changeover</b>
88	Input
88a	Output 1
88b	Output 2
88c	Output 3
88z	Input 1
88y	Input 2
88x	Input 3
	<b>Directional signals</b>
C	Indicator lamp 1
C2	Indicator lamp 2
C0	Main connection for separate indicator circuits worked by turn signal switch
C3	Indicator lamp 3 (e.g., when towing two trailers)
L	Turn-signal lamps, left
R	Turn-signal lamps, right