

# Relay, model MAA-S-124-C, is a 24 VDC, 5-pin

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**Mbsmpro.com, Relay, MEISHUO MAA-S-124-C, 24V, 20A/10A, S220, 5-Pin, DIN 72552, Terminals 30-85-86-87-87a, SPDT, Automotive, Coil, Normally Open, Normally Closed**

## ***Understanding the MEISHUO MAA-S-124-C 5-Pin Automotive Relay***

The MEISHUO S220 series relay, model **MAA-S-124-C**, is a 24 VDC, 5-pin SPDT automotive relay rated 20 A/10 A at 28 VDC, widely used in vehicles and industrial control panels.

Its terminals follow the DIN 72552 standard numbering: 30, 85, 86, 87 and 87a, which simplifies wiring and troubleshooting for technicians.

### **Relay terminal functions (DIN 72552)**

The DIN 72552 standard assigns each pin a clear functional role that does not depend on the physical layout of the housing.

This universal coding is crucial when replacing relays in mixed fleets, where the same harness may receive different brands or body styles.

**Table 1 - Terminal numbers and roles**

<b>Terminal</b>	<b>Standard name</b>	<b>Electrical role / connection</b>
30	<b>Common terminal</b>	Main common contact; connects to 87 or 87a depending on relay state.
85	Coil – (ground)	One side of the electromagnetic coil, usually tied to chassis ground.
86	Coil + (control voltage)	Coil feed from switch, ECU or control circuit.
87	Normally open (NO) contact	Connected to 30 only when the coil is energized.
87a	Normally closed (NC) contact	Connected to 30 when the relay is de-energized (changeover function).

## Internal SPDT changeover architecture

Internally, this relay is a single-pole double-throw (SPDT) changeover design: one moving armature switches the common terminal 30 between 87a (NC) and 87 (NO).

When no voltage is applied to 85-86, 30 remains connected to 87a; once the coil is powered, a magnetic field pulls the armature and transfers 30 to 87, never joining 87 and 87a at the same time.

**Table 2 - Contact state vs coil status**

Coil state	30-87 connection	30-87a connection	Typical use case
De-energized (OFF)	Open	Closed	Power present when system is idle (e.g., courtesy lights).
Energized (ON)	Closed	Open	Power only when commanded (e.g., fan, compressor, auxiliary lights).

## Key electrical specifications and practical limits

While the S220 MAA-S-124-C is rated at 20 A/10 A at 28 VDC, the NC path (30-87a) typically carries the lower current rating compared with the NO path (30-87), a common convention for changeover relays.

Coil voltage is fixed at 24 VDC, and coil resistance in similar MEISHUO 24 V changeover models is around 1.6 k $\Omega$ , giving a coil power of roughly 0.36 W, which helps in low-power control systems.

**Table 3 - Typical MEISHUO 24 V changeover relay data**

Parameter	MEISHUO MAA-S-124-C (S220 family)	Typical 12 V automotive relay	Solid-state relay module*
Coil voltage	24 VDC	12 VDC	3-32 VDC input
Contact configuration	1 $\times$ SPDT (5-pin)	1 $\times$ SPDT (4 or 5 pin)	1 $\times$ SPST or SPDT
Max contact current (NO/NC)	20 A / 10 A @ 28 VDC	30-40 A / 20-30 A	2-40 A depending model
Coil resistance (approx.)	1.6 k $\Omega$	70-90 $\Omega$	N/A (no coil)
Isolation method	Mechanical gap	Mechanical gap	Semiconductor junction

\*Values for generic industrial SSRs.

## Comparison with standard ISO mini automotive relays

Standard ISO mini relays share the same numbering but often target 12 V passenger vehicles, whereas the MAA-S-124-C addresses 24 V commercial, HVAC or industrial systems.

Type-A and Type-B ISO layouts may swap the physical locations of pins 30 and 86, but the numeric role stays constant, so technicians working with mixed stocks must always wire by number, not by drawing lines from the plastic footprint.

**Table 4 - MEISHUO S220 vs generic ISO mini relay**

<b>Feature</b>	<b>MEISHUO MAA-S-124-C 24 V</b>	<b>Generic ISO mini 12 V relay</b>
Nominal system voltage	24 VDC	12 VDC
Application segment	Trucks, HVAC, industrial control	Passenger cars, light utility
Coil current (typical)	≈15 mA at 24 V	150-200 mA at 12 V
Contact current rating	20 A/10 A	30-40 A / 20-30 A
Common failure symptoms	Pitted contacts, open coil	Same, plus melted sockets at high load

## ***Practical wiring scenarios for technicians***

A 5-pin SPDT relay like this offers flexible logic: the same control signal can switch loads that must be ON with the system and loads that must be OFF at the same time.

In an HVAC unit, for example, a 24 V thermostat output connected to 86 can feed the compressor contactor on 87, while 87a maintains a safety interlock loop when the compressor is idle.

**Table 5 - Example wiring schemes using terminals 30-85-86-87-87a**

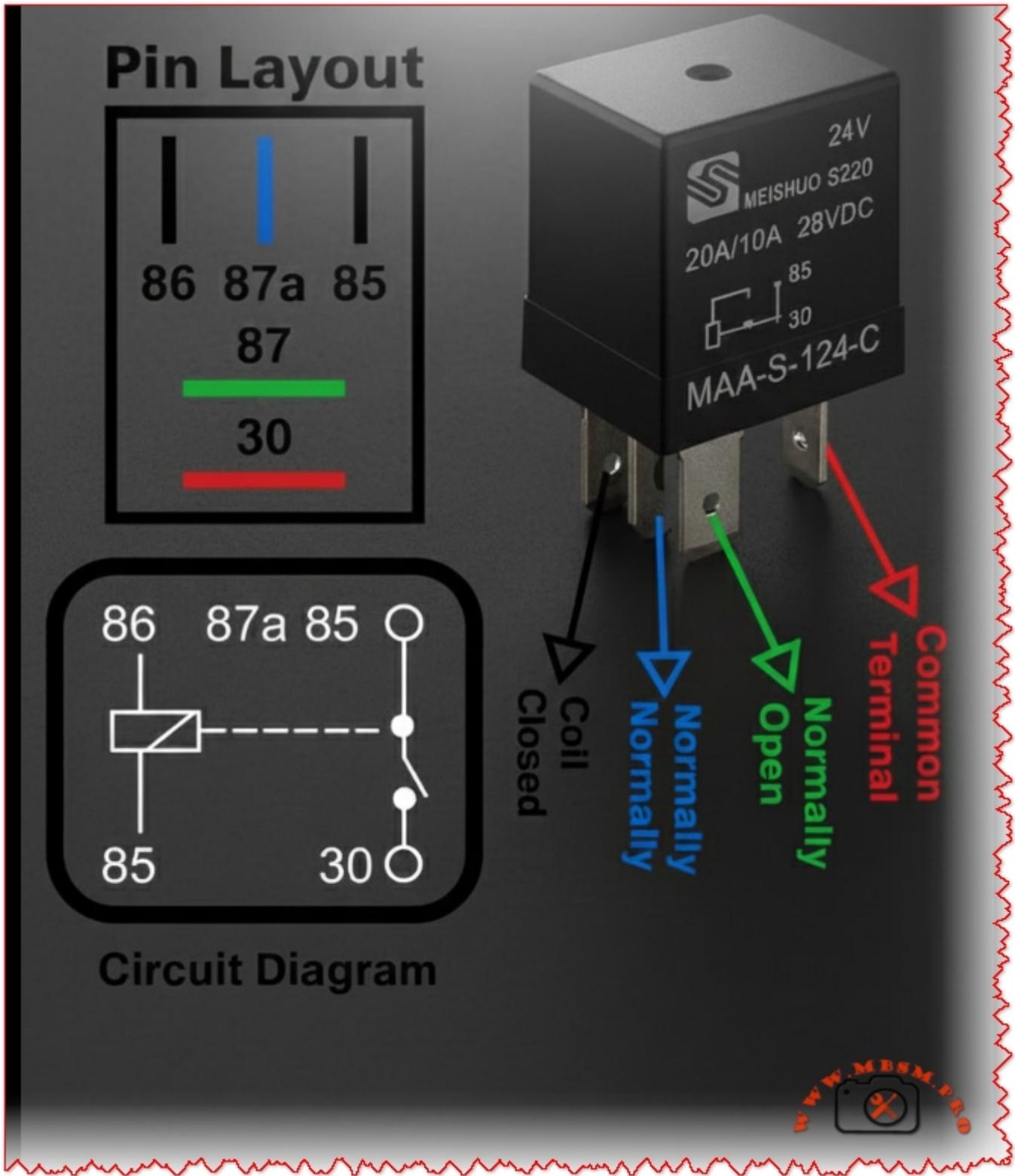
<b>Application</b>	<b>30 connection</b>	<b>87 (NO) load</b>	<b>87a (NC) load</b>	<b>Coil trigger (86) source</b>
Auxiliary fan with fail-safe off	Battery positive via fuse	Fan motor positive	Not used	Ignition-controlled switch
HVAC compressor enable / disable	24 V supply from control transformer	Compressor contactor coil	Alarm indicator when compressor idle	Thermostat or PLC digital output
Headlamp-driven work light	Dedicated fused feed	Work light lamp	Not used	Headlamp main-beam circuit
Power-saving standby mode	Constant 24 V to non-critical loads	System ON bus	Low-power standby bus	Control panel selector or remote contact

## ***Advantages over simple 4-pin NO relays***

Compared with a basic 4-pin make-and-break relay, the 5-pin MAA-S-124-C supports changeover logic without extra components, saving wiring time and panel space.

Because 87a is closed at rest, designers can implement safety interlocks that drop out automatically once the relay energizes, improving fault detection in automotive and industrial controls.

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## Focus keyphrase (Yoast SEO)

MEISHUO MAA-S-124-C 5-pin relay 30-85-86-87-87a DIN 72552 terminal functions and wiring guide for 24V automotive and industrial control

## SEO title (Yoast SEO)

MEISHUO MAA-S-124-C Relay 24V, 5-Pin 30-85-86-87-87a Wiring Guide | Mbsmpro.com

## Meta description (Yoast SEO)

Learn how to wire the MEISHUO MAA-S-124-C 24V 5-pin relay using DIN 72552 terminals 30, 85, 86, 87 and 87a. See pin functions, tables, examples and comparisons for automotive and industrial control.

## Slug (Yoast SEO)

meishuo-maa-s-124-c-5-pin-relay-30-85-86-87-87a-wiring

## Tags

MEISHUO relay, MAA-S-124-C, S220 relay, 5 pin relay, SPDT relay, DIN 72552, terminal 30 85 86 87 87a, automotive relay, 24V relay, relay wiring, relay pinout, HVAC control relay, industrial control relay, Mbsmgroup, Mbsm.pro, mbsmpro.com, mbsm

## Excerpt (first 55 words)

The MEISHUO S220 series relay, model MAA-S-124-C, is a 24-volt 5-pin SPDT automotive relay rated 20 A/10 A at 28 VDC. Its DIN 72552 terminal numbering—30, 85, 86, 87 and 87a—gives technicians a universal language for wiring and troubleshooting in vehicles, HVAC equipment and industrial control panels.

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