The MC75-44-R is designed as an interface card with two sets of channels each providing two control circuits for 24 VUC and 230 VAC. The device is used to transmit 24 V control signals (i.e., motor drive from a PLC) and provide a return for 230 VAC signals for status indication (e.g., from the field).

A bridge rectifier is wired to the 24 V relay coils so the card can operate with either pnp (current sourcing), npn (current sinking) systems or with AC input devices.

Silver-alloy + 3 µm Au is used as contact material. The power circuits are protected by an RC snubber network.

Four LEDs on the front cover indicate the status of the respective output relays.

4 relay outputs, each with one SPDT contact

Contact material silver-alloy + 3 µm Au

Galvanic isolation of input circuit from output circuit per VDE 0106

Two 230 VAC and 24 VUC input circuits

Bridge rectifier input

Relay according to VDE 0435

Printed circuits boards and connectors according to VDE 0110

A carefully arranged layout of the printed circuit board ensures maximum clearances and creepage distances. The plug-in terminal connections are arranged to provide adequate separation between the input and output.
Couplers and Interface Devices

<table>
<thead>
<tr>
<th>Type</th>
<th>MC75-44-R/24VUC</th>
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<tr>
<td>Ident-No.</td>
<td>90 812</td>
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**Clearances and Creepage Distances**

between control circuits and contacts: 8 mm/4 kV

| Supply Voltage $U_B$ | -                         |
| Ripplle $W_{pp}$     | -                         |
| Current consumption  | -                         |

**Input Circuits**

- UC control inputs, AC control inputs
- VUC control input: 19.2…28.8 VUC
- AC control input: 184…264 VAC
- Current consumption: ≤ 30 mA per channel

**Output Circuits**

- 2 x 2 relay outputs
- 2 relays with snubber circuit
- Contacts: 1 SPDT contact, silver-alloy + 5 µm Au
- Switching voltage: ≤ 250 V
- Switching current/continuous current: ≤ 2 A
- Switching capacity: ≤ 500 VA/60 W
- Switching frequency: ≤ 5 Hz

- Output circuits 3 + 4
- Contacts: 2 relays
- 1 SPDT contact, silver-alloy + 3 µm Au
- Switching voltage: ≤ 36 V
- Switching current/continuous current: ≤ 2 A
- Switching capacity: ≤ 72 VA/60 W
- Switching frequency: ≤ 5 Hz

**LED Indications**

- Status indication: yellow

**Eurocard**

100 x 160 mm (DIN 41494)

- Material: glass-fiber reinforced epoxy resin, quality class FR4
- Front panel: plastic, 4TE = 20.32 mm
- Individually interlocking
- Connector per DIN 41612, type F, 32-pole (series z and d)
- Operating temperature: -25…+60 °C