



## BRIEF INFORMATION

### Mini relay, micro relay and high performance relay

- › Flat connector in accordance with ISO 8092-1
- › Contact configurations: normally open contact, changeover contact
- › Rated voltage: 12 V or 24 V

## PRODUCT FEATURES

### Application

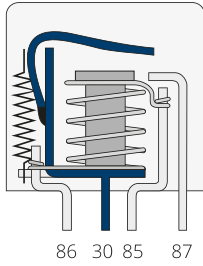
Relays are electrically operated switches that with the help of an electromagnet work a switching mechanism to open or close contacts. They are used when load circuits have to be switched on or off by a control signal. Electromechanical relays are characterised by the complete separation between the control circuit and the load circuit. Because relays are robust and only slightly susceptible to failure, they can be installed near electric consumers. Furthermore, they only require low control currents, a fact which means that small line cross-sections are sufficient.

Normally open relays are used to close an electric circuit between an energy source and one or several electrical loads, i.e. the loads are switched on. Relays are operated by means of switches, pulse generators or control units. Typical vehicle applications are lamps, auxiliary lamps and also fog lamps, horns, heaters, air-conditioning systems and many other kinds of applications.

Changeover relays switch the load current path from one electrical load to another. Such relays are operated, for example, by a switch located on the dashboard. Changeover relays are used for switching, among other things, applications with two levels / speeds such as heated rear windows or fan motors and the like.

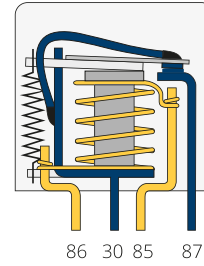
# PRODUCT FEATURES

## Design and function



### Functioning of normally open relays

The control circuit (86 / 85) is inactive and the return spring holds the armature open. Normally open or operating contacts are open and the load circuit (30 / 87) is interrupted.

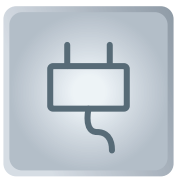


The control circuit (86 / 85) is active and the current flow in the magnetic coil (copper wire) induces a magnetic field, which pulls the armature down onto the magnetic core. Normally open or operating contacts are closed and, as a result, the load circuit (30 / 87) is also closed.

### Functioning of changeover relays

A changeover relay functions along the same lines as a normally open relay. The only difference is that the armature is connected with a second (alternative) output (87a) in idle mode. As soon as the control circuit becomes active, the armature is energised, opens the idle contact (87a) and changes to the normally open contact (87).

A changeover relay can be used as a normally open relay, i.e. a make-contact relay and also as a normally closed or break-contact relay. Because of its design, the switching current of the normally open contact is always greater than that of the idle contact.



### Connections and connector configuration

The connections of the relays are each labelled with numbers. Please find the assignment attached.

- 30** Load current +, terminal 15 (input)
- 85** Relay coil - (input)
- 86** Relay coil + (input)
- 87** Load current, normally open contact (output)
- 87a** Load current, break contact (output)

# TECHNICAL DETAILS

Technical data	Mini relay (12 V)		Mini relay (24 V)		Power mini relay (12 V)
	4RA 007 791-... 4RD 007 794-... 4RD 931 410-... 4RD 931 680-...	4R* 933 332-... 4RA 933 791-... 4R* 965 400-...	4RA 007 957-... 4RD 007 903-...	4R* 933 332-... 4RA 933 791-... 4RA 965 400-...	4RA 007 793-...
<b>General specifications</b>					
Test voltage	13.5 V		27 V		13.5 V
Test temperature	+23 °C ± 5 °C		+23 °C ± 5 °C		+23 °C ± 5 °C
Permissible ambient temperature	-40 °C to +125 °C		-40 °C to +125 °C		-40 °C to +125 °C
Flat connector (in accordance with ISO 8092)					
30	6.3 x 0.8 mm		6.3 x 0.8 mm		9.5 x 1.2 mm
85	6.3 x 0.8 mm		6.3 x 0.8 mm		6.3 x 0.8 mm
86	6.3 x 0.8 mm		6.3 x 0.8 mm		6.3 x 0.8 mm
87	6.3 x 0.8 mm		6.3 x 0.8 mm		9.5 x 1.2 mm
87a	6.3 x 0.8 mm		6.3 x 0.8 mm		-
<b>Coil specifications</b>					
Operating voltage range at permissible ambient temperature	Single-voltage (8 – 16 V)		Single-voltage (16 – 30 V)		Single-voltage (8 – 16 V)
Rated voltage	12 V		24 V		12 V
Pick-up voltage at test temperature	< 8 V		< 17 V	< 15.6 V	< 8 V
Dropout voltage at test temperature	> 1.2 V		> 3.5 V	> 2.4 V	> 1.3 V
Coil resistance at test temperature without parallel component	85 – 124 Ohm ± 10 %	85 – 95 Ohm ± 10 %	305 – 360 Ohm ± 10 %		90 / 100 Ohm ± 10 %
Response time	< 10 ms		< 10 ms		< 10 ms
Dropout time	< 10 ms		< 10 ms		< 10 ms
Insulation resistance Coil circuit / load circuit	> 100 MOhm		> 100 MOhm		> 100 MOhm
Dielectric strength Coil circuit / load circuit	> 1.000 VDC / > 750 VAC		> 1.000 VDC / > 750 VAC		> 1.000 VDC
<b>Contact specifications</b>					
Contact voltage dropout at test voltage ...					
... normally open contact in new state	< 15 mV/A		< 15 mV/A		< 15 mV/A
... break contact in new state	< 25 mV/A	< 30 mV/A	< 25 mV/A	< 30 mV/A	-
... normally open contact after life endurance test	< 250 mV/A	< 100 mV/A	< 250 mV/A	< 100 mV/A	< 250 mV/A
... break contact after life endurance test	< 250 mV/A	< 100 mV/A	< 250 mV/A	< 100 mV/A	-
Minimum load current	1 A / 6 V		1 A / 6 V		1 A / 6 V
Mechanical service life (number of switching operations)	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>	10 <sup>7</sup>
<b>Protection class</b>	IP 54 / IP 67	IP 54	IP 54		IP 54

# TECHNICAL DETAILS


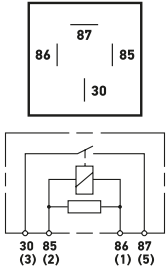

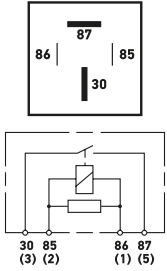

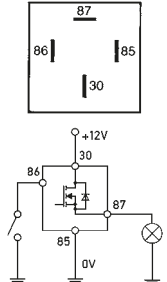

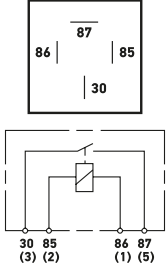

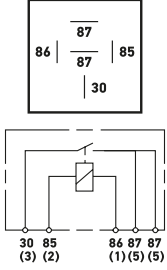

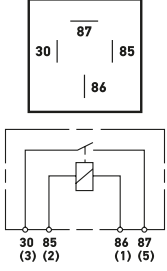
Technical data	High performance relay		Micro relay	
	12 V 4RA 003 437-...	24 V 4RA 003 437-...	12 V 4RD 933 319-... 4RA 933 766-... 4RD 965 453-...	24 V 4RD 933 319-...
<b>General specifications</b>				
Test voltage	13.5 V	27 V	13.5 V	27 V
Test temperature	+23 °C ± 5 °C		+23 °C ± 5 °C	+23 °C ± 5 °C
Permissible ambient temperature	-40 °C to +125 °C		-40 °C to +125 °C	-40 °C to +125 °C
Flat connector (in accordance with ISO 8092)				
30	9.5 x 1.2 mm		6.3 x 0.8 mm	6.3 x 0.8 mm
85	6.3 x 0.8 mm		4.8 x 0.8 mm	4.8 x 0.8 mm
86	6.3 x 0.8 mm		4.8 x 0.8 mm	4.8 x 0.8 mm
87	9.5 x 1.2 mm		6.3 x 0.8 mm	6.3 x 0.8 mm
87a	-	-	4.8 x 0.8 mm	4.8 x 0.8 mm
<b>Coil specifications</b>				
Operating voltage range at permissible ambient temperature	Single-voltage (8 – 16 V)	Single-voltage (16 – 30 V)	Single-voltage (8 – 16 V)	Single-voltage (16 – 30 V)
Rated voltage	12 V	24 V	12 V	24 V
Pick-up voltage at test temperature	< 7.5 V	< 16 V	< 8 V	< 14.4 V
Dropout voltage at test temperature	> 1 V	> 2.4 V	< 1 V	< 2.4 V
Coil resistance at test temperature without parallel component	90 Ohm ± 10 %	320 Ohm ± 10 %	115 / 140 Ohm ± 10 %	384 Ohm ± 10 %
Response time	< 10 ms		< 10 ms	< 10 ms
Dropout time	< 10 ms		< 10 ms	< 10 ms
Insulation resistance Coil circuit / load circuit	> 100 MOhm		> 20 MOhm	> 100 MOhm
Dielectric strength Coil circuit / load circuit	> 500 VAC		> 500 VDC / VAC	> 500 VAC
<b>Contact specifications</b>				
Contact voltage dropout at test voltage ...				
... normally open contact in new state	< 20 mV/A		< 20 mV/A	< 50 mV/A
... break contact in new state	-	-	< 20 mV/A	< 50 mV/A
... normally open contact after life endurance test	< 250 mV/A		< 100 mV/A	< 100 mV/A
... break contact after life endurance test	-	-	< 150 mV/A	< 150 mV/A
Minimum load current	1 A / 6 V		1 A / 6 V	1 A / 6 V
Mechanical service life (number of switching operations)	10 <sup>6</sup>		10 <sup>7</sup>	10 <sup>7</sup>
<b>Protection class</b>	IP 67		IP 54	

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Parallel resistance: 560 ohm            Bracket: yes</p>	<p><b>4RA 007 791-021</b></p>	<p>1</p>
		<p>12 V, 4-pin, with 9.5 mm load contacts</p> <p>Rated switching current*: max. 70 A            Number of switching operations: min. 75,000            Coil resistance: 90 ohm            Parallel resistance: 560 ohm            Bracket: yes</p>	<p><b>4RA 007 793-041</b></p>	<p>1</p>
		<p>12 V, 5-pin, with double output</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 85 ohm            Bracket: yes</p>	<p><b>4RA 933 791-061</b></p>	<p>1</p>
		<p>12 V, 5-pin, with double output and parallel diode</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 85 ohm            Bracket: yes</p>	<p><b>4RA 933 791-091</b></p>	<p>1</p>
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 30 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Bracket: yes</p>	<p><b>4RA 965 400-001</b></p>	<p>1</p>


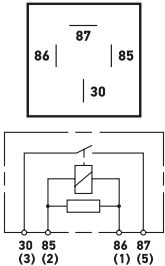

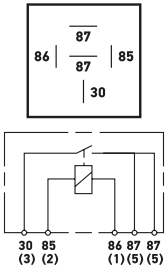

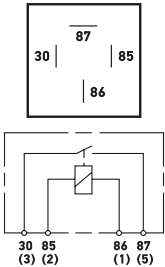
\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
MINI RELAY – NORMALLY OPEN RELAY 12 V, WITHOUT BRACKET				
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Parallel resistance: 560 ohm            Bracket: no</p>	4RA 007 791-011	1
		<p>12 V, 4-pin, with 9.5 mm load connections</p> <p>Rated switching current*: max. 50 A            Number of switching operations: min. 75,000            Coil resistance: 100 ohm            Parallel resistance: 680 ohm            Bracket: no</p>	4RA 007 793-031	1
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 30 A            Number of switching operations: min. 900,000            Protection class: IP 67            Bracket: no</p>	4RA 931 774-031	1
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 85 ohm            Bracket: no</p>	4RA 933 332-101	1
		<p>12 V, 5-pin, with double output</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 85 ohm            Bracket: no</p>	4RA 933 332-151	1
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 30 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Bracket: no</p>	4RA 965 400-017	100


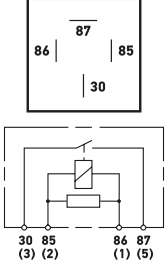

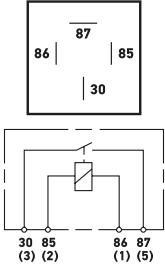

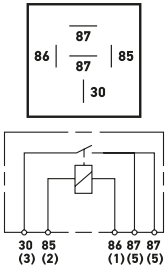
\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
		<p>24 V, 4-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 320 ohm            Parallel resistance: 1,200 ohm            Bracket: yes</p>	<p><b>4RA 007 957-011</b></p>	<p>1</p>
		<p>24 V, 5-pin, with double output</p> <p>Rated switching current*: max. 30 A            Number of switching operations: min. 100,000            Coil resistance: 360 ohm            Bracket: yes</p>	<p><b>4RA 933 791-071</b></p>	<p>1</p>
		<p>24 V, 4-pin</p> <p>Rated switching current*: max. 30 A            Number of switching operations: min. 100,000            Coil resistance: 360 ohm            Bracket: yes</p>	<p><b>4RA 965 400-031</b></p>	<p>1</p>

\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
MINI RELAY – NORMALLY OPEN RELAY 24 V, WITHOUT BRACKET				
		<p>24 V, 4-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 320 ohm            Parallel resistance: 1,200 ohm            Bracket: no</p>	<p>4RA 007 957-001</p> <hr/> <p>4RA 007 957-007</p>	<p>1</p> <hr/> <p>300</p>
		<p>24 V, 4-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 350 ohm            Bracket: no</p>	<p>4RA 933 332-111</p>	<p>1</p>
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 30 A            Number of switching operations: min. 100,000            Coil resistance: 350 ohm            Bracket: no</p>	<p>4RA 933 791-081</p>	<p>1</p>


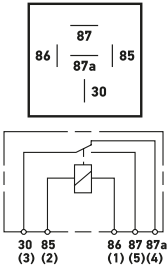

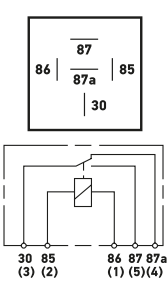

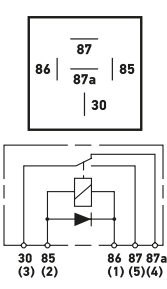
\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
MINI RELAY – CHANGEOVER RELAY 12 V, WITH BRACKET				
		12 V, 5-pin Rated switching current*: max. 40 A Number of switching operations: min. 100,000 Coil resistance: 90 ohm Parallel resistance: 560 ohm Bracket: yes	4RD 007 794-031	1
		12 V, 5-pin Rated switching current*: max. 40 A Number of switching operations: min. 100,000 Coil resistance: 100 ohm Parallel resistance: 680 ohm Bracket: yes	4RD 007 794-037	240
		12 V, 5-pin Rated switching current*: max. 40 A Number of switching operations: min. 100,000 Coil resistance: 90 ohm Parallel resistance: 560 ohm Bracket: yes	4RD 007 794-067	200
		12 V, 5-pin Rated switching current*: max. 40 A Number of switching operations: min. 100,000 Coil resistance: 90 ohm Parallel resistance: 560 ohm Bracket: yes	4RD 007 794-301	1
		12 V, 5-pin Rated switching current*: max. 35 A Number of switching operations: min. 100,000 Coil resistance: 124 ohm Parallel resistance: 680 ohm Bracket: yes	4RD 931 410-088	120
		12 V, 5-pin Rated switching current*: max. 40 A Number of switching operations: min. 100,000 Coil resistance: 85 ohm Bracket: yes	4RD 933 332-011	1
		12 V, 5-pin Rated switching current*: max. 40 A Number of switching operations: min. 100,000 Coil resistance: 85 ohm Bracket: yes	4RD 933 332-017	100
		12 V, 5-pin, dust and water protected, IP 6K7 / IP 6K9K*** Rated switching current*: max. 40 A Number of switching operations: min. 60,000 Coil resistance: 85 ohm Parallel resistance: 680 ohm Bracket: yes	4RD 933 332-031	1
		12 V, 5-pin, dust and water protected, IP 6K7 / IP 6K9K*** Rated switching current*: max. 40 A Number of switching operations: min. 60,000 Coil resistance: 85 ohm Parallel resistance: 680 ohm Bracket: yes	4RD 933 332-037	160


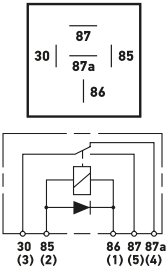

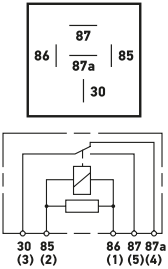

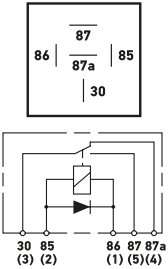

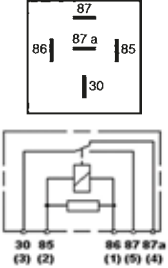

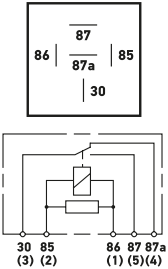
\* At 80 °C ambient temperature / \*\*Packaging unit / \*\*\* In combination with mating connector 8JD 745 801-001/-011

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
MINI RELAY - CHANGEOVER RELAY 12 V, WITH BRACKET				
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 60,000            Coil resistance: 85 ohm            Bracket: yes</p>	<p>4RD 933 332-041</p> <hr/> <p>4RD 933 332-047</p>	<p>1</p> <hr/> <p>100</p>
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 60,000            Coil resistance: 85 ohm            Bracket: yes</p>	<p>4RD 933 332-237</p>	<p>100</p>
		<p>12 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 60,000            Coil resistance: 85 ohm            Bracket: yes</p>	<p>4RD 933 332-277</p>	<p>100</p>


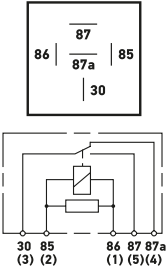

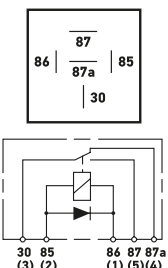

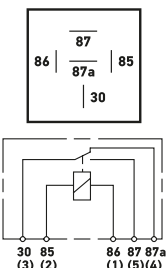
\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
		<p>12 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Bracket: no</p>	<p><b>4RD 965 400-027</b></p>	<p>100</p>
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 100 ohm            Parallel resistance: 680 ohm            Bracket: no</p>	<p><b>4RD 007 794-021</b></p>	<p>1</p>
		<p>12 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Bracket: no</p>	<p><b>4RD 007 794-041</b></p>	<p>1</p>
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 100 ohm            Parallel resistance: 680 ohm            Bracket: no</p>	<p><b>4RD 007 794-077</b></p>	<p>200</p>
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Parallel resistance: 560 ohm            Bracket: no</p>	<p><b>4RD 931 680-017</b></p>	<p>360</p>

\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 100,000            Coil resistance: 90 ohm            Parallel resistance: 560 ohm            Bracket: no</p>	<p><b>4RD 931 680-017</b></p>	<p>360</p>
		<p>12 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 60,000            Coil resistance: 85 ohm            Bracket: no</p>	<p><b>4RD 933 332-021</b></p> <p><b>4RD 933 332-027</b></p>	<p>1</p> <p>40</p>
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 40 A            Number of switching operations: min. 60,000            Coil resistance: 85 ohm            Bracket: no</p>	<p><b>4RD 933 332-051</b></p> <p><b>4RD 933 332-057</b></p>	<p>1</p> <p>100</p>


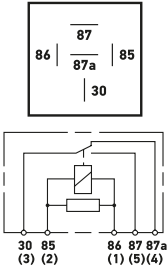

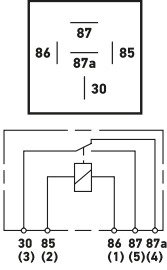

\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 320 ohm            Parallel resistance: 1,200 ohm            Bracket: yes</p>	<p>4RD 007 903-011</p>	<p>1</p>
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 350 ohm            Bracket: yes</p>	<p>4RD 933 332-061</p> <p>4RD 933 332-067</p>	<p>1</p> <p>100</p>
		<p>24 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 350 ohm            Bracket: yes</p>	<p>4RD 933 332-081</p> <p>4RD 933 332-087</p>	<p>1</p> <p>100</p>
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 350 ohm            Parallel resistance: 1,200 ohm            Bracket: yes</p>	<p>4RD 933 332-201</p>	<p>1</p>


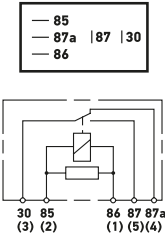

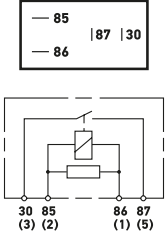

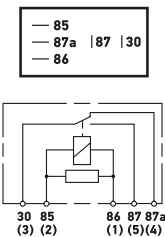

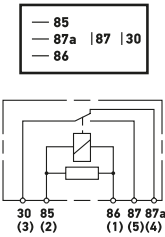
\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
MINI RELAY – CHANGEOVER RELAY 24 V, WITHOUT BRACKET				
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A                      Number of switching operations: min. 100,000                      Coil resistance: 320 ohm                      Parallel resistance: 1,200 ohm                      Bracket: no</p>	4RD 007 903-001	1
		<p>24 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 20 A                      Number of switching operations: min. 100,000                      Coil resistance: 320 ohm                      Bracket: no</p>	4RD 007 903-021	1
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A                      Number of switching operations: min. 100,000                      Coil resistance: 350 ohm                      Bracket: no</p>	4RD 933 332-071	1
		<p>24 V, 5-pin, with parallel diode</p> <p>Rated switching current*: max. 20 A                      Number of switching operations: min. 100,000                      Coil resistance: 350 ohm                      Bracket: no</p>	4RD 933 332-091	1
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A                      Number of switching operations: min. 100,000                      Coil resistance: 350 ohm                      Parallel resistance: 1,200 ohm                      Bracket: no</p>	4RD 933 332-261	1

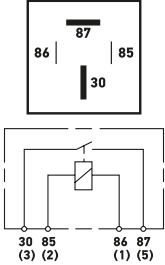
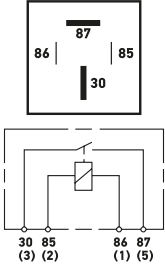

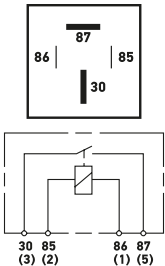

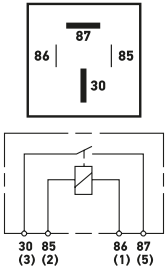
\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
MICRO RELAY – NORMALLY OPEN RELAY / CHANGEOVER RELAY 12 V, WITHOUT BRACKET				
		<p>12 V, 5-pin, with locking tabs</p> <p>Rated switching current*: max. 35 A            Number of switching operations: min. 100,000            Coil resistance: 140 ohm            Parallel resistance: 1,000 ohm            Bracket: no</p>	<p>4RD 933 319-001</p> <hr/> <p>4RD 933 319-007</p>	<p>1</p> <hr/> <p>500</p>
		<p>12 V, 4-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 150,000            Coil resistance: 115 ohm            Parallel resistance: 680 ohm            Bracket: no</p>	<p>4RA 933 766-111</p>	<p>1</p>
		<p>12 V, 5-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 100,000            Coil resistance: 115 ohm            Parallel resistance: 680 ohm            Bracket: no</p>	<p>4RD 965 453-041</p> <hr/> <p>4RD 965 453-047</p>	<p>1</p> <hr/> <p>350</p>
MICRO RELAY – NORMALLY OPEN RELAY / CHANGEOVER RELAY 24 V, WITHOUT BRACKET				
		<p>24 V, 5-pin</p> <p>Rated switching current*: max. 20 A            Number of switching operations: min. 50,000            Coil resistance: 384 ohm            Parallel resistance: 2,700 ohm            Bracket: no</p>	<p>4RD 933 319-011</p> <hr/> <p>4RD 933 319-017</p>	<p>1</p> <hr/> <p>500</p>

\* At 80 °C ambient temperature / \*\* Packaging unit

# PROGRAM OVERVIEW

Product image	Circuit diagram	Description	Part number	VPE**
HIGH PERFORMANCE RELAY – NORMALLY OPEN RELAY 12 V, WITH / WITHOUT BRACKET				
		12 V, 4-pin Rated switching current*: max. 70 A Number of switching operations: min. 50,000 Coil resistance: 90 ohm Bracket: yes	4RA 003 437-181	1
			4RA 003 437-187	180
		12 V, 4-pin Rated switching current*: max. 70 A Number of switching operations: min. 50,000 Coil resistance: 90 ohm Bracket: no	4RA 003 437-211	1
HIGH PERFORMANCE RELAY – NORMALLY OPEN RELAY 24 V, WITH / WITHOUT BRACKET				
		24 V, 4-pin Rated switching current*: max. 70 A Number of switching operations: min. 50,000 Coil resistance: 320 ohm Bracket: yes	4RA 003 437-191	1
			4RA 003 437-197	180
		24 V, 4-pin Rated switching current*: max. 70 A Number of switching operations: min. 50,000 Coil resistance: 320 ohm Bracket: no	4RA 003 437-221	1

\* At 80 °C ambient temperature / \*\* Packaging unit