

Miniature Power Relay N

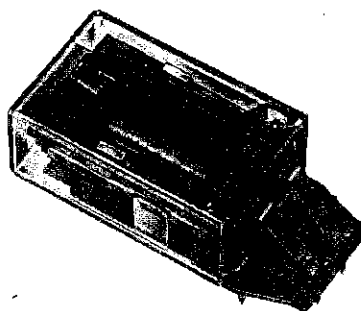
V23016-D0***-A*9*

1 changeover or 1 twin make contact

Dust-protected

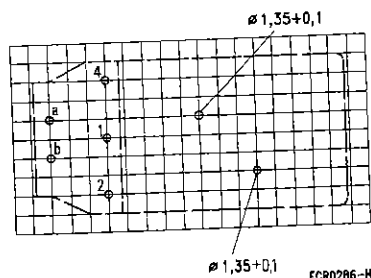
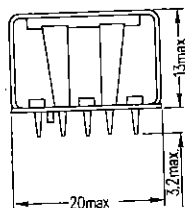
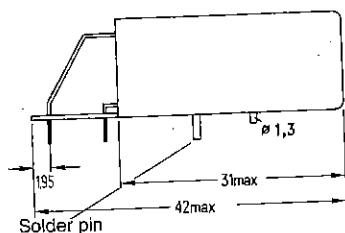
With additional solder pin
for fixing

For printed circuit mounting,
pin arrangement suits 2.5 mm grid
in acc. with DIN 40801 and DIN 40803, fine



ECR0067-Y

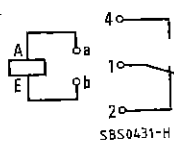
Illustration approx. original size
Approx. weight 18 g



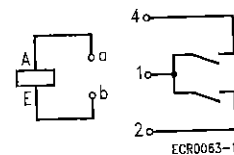
Mounting hole layout
View onto the terminals

Base terminals

Changeover

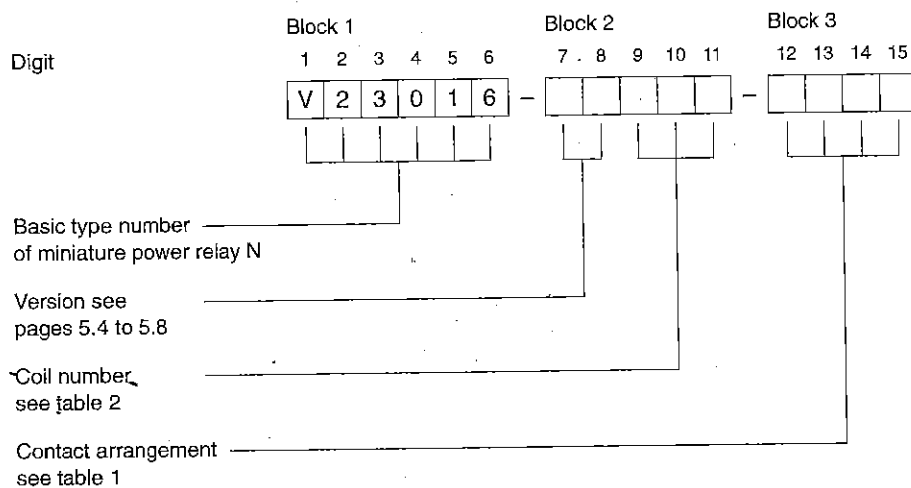


Twin make



Miniature Power Relay N

Ordering code



Ordering example: V23016-B0006-A101

Miniature power relay N, for printed circuits (upright mounting), coil 24 V nominal voltage, 1 changeover, contact material silver, gold-flashed

5

SCS – Preferred standard types

Relays: V23016-A0002-A101

-A0004-A101

-A0005-A101

V23016-A0006-A101

-A0006-A201

-A0006-A401

-A0013-A101

V23016-B0002-A101

-B0004-A101

-B0005-A101

-B0005-A201

V23016-B0006-A101

-B0006-A102

-B0006-A201

-B0006-A401

-B0013-A101

V23016-C0002-A101

-C0005-A101

-C0005-A201

V23016-C0006-A101

-C0006-A201

-C0013-A101

V23016-D0002-A101

-D0004-A101

-D0005-A101

-D0005-A191

-D0005-A201

V23016-D0006-A101

-D0006-A191

-D0006-A192

-D0006-A201

-D0006-A291

-D0007-A291

Screws: D00933-G0040-S001
-G0060-S001

Nut: D00439-B0020-S001

Miniature Power Relay N

Table 1 Characteristics
Energising side

To be continued →

Operating voltages	V DC	see table 2
Power consumption	W	approx. 0.6
Maximum temperature	°C	110
Continuous thermal load at 20 °C ambient temperature	W	2.1
Thermal resistance	K/W	45

Contact side

Ordering code	versions A0, B0 and C0	A101	A201	A401
block 3	version D0 ¹⁾	A101, A191	A201, A291	A401, A491
Contact material		silver, gold-flashed	silver nickel	silver-cadmium oxide
Contact description		21		
Symbol (see also base terminals)				
Maximum switching voltage as per VDE 0110 group C	V DC V AC	300 250		
Maximum switching current	A	15 ²⁾		
Maximum power rating ⁴⁾ DC voltage	W W W W	55 ... 420 see fig. 1 (voltage- dependent)	up to 24 V : 150 30 V : 100 200 V : 30 250 V : 50	35 ... 400 see fig. 1 (voltage- dependent)
AC voltage	VA	3750		
Maximum continuous current	A	7.5		

General

Permissible ambient temperature	°C	- 40 ... + 70		
Operate time ⁵⁾	ms	approx. 7		
Release time ⁵⁾	ms	approx. 5		
Maximum switching rate	ops./s	40		
Test voltage	winding/frame contact/frame contact/winding	V AC _{rms} V AC _{rms} V AC _{rms}	1500 2500 2500	
Electrical life ⁶⁾	AC voltage DC voltage 6 V, 15 A DC voltage 15 V, 7.5 A DC voltage 24 V, 4 A	operations operations operations operations	see page 5.14 approx. 10 ⁶ approx. 4 × 10 ⁶ approx. 6 × 10 ⁶	
Mechanical life		operations	approx. 2 × 10 ⁵	

¹⁾ For type V23016-D0... insert into ordering block 3, digit 14;

0 for version with fixing screw (see page 5.8)

9 for version with solder pin (see page 5.7)

²⁾ The power ratings listed are only valid when the contacts are bridge connected.

When used as a twin make the values for the changeover contact apply.

³⁾ The current of 15 A may flow for a maximum of 4 seconds up to 10% on-time.

⁴⁾ The ratings apply to resistive or inductive load with appropriate spark suppression.

⁵⁾ Measured at nominal voltage without series resistor

⁶⁾ The ratings apply to silver contacts, resistive or inductive load with appropriate spark suppression and have been determined at 2 operations/s.

Miniature Power Relay N

Table 2 Coil versions

Nominal voltage	Operating voltage range at 20 °C		Resistance at 20 °C	Coil number Ordering code block 2
	Minimum voltage U_I V DC	Maximum voltage U_{II} V DC		
V DC			Ω	
6	4.2	11	65 ± 6.5	002
12	8.3	22	230 ± 23	005
24	16.8	44	970 ± 144	006
48	33.5	88	3150 ± 472	004
60	42.0	110	5000 ± 750	013

The operating voltage limits U_I and U_{II} depend on temperature and can be calculated by:

$$U_{I\text{tu}} = k_I \cdot U_{I\text{20}^\circ\text{C}} \text{ and } U_{II\text{tu}} = k_{II} \cdot U_{II\text{20}^\circ\text{C}}$$

t_u = ambient temperature

$U_{I\text{tu}}$ = minimum voltage at ambient temperature t_u

$U_{II\text{tu}}$ = maximum voltage at ambient temperature t_u

k_I and k_{II} = factors

t_u	20 °C	30 °C	40 °C	50 °C	60 °C	70 °C
k_I	1.0	1.04	1.085	1.13	1.17	1.21
k_{II}	1.0	0.95	0.88	0.79	0.70	0.60