Miniature Power Relay N

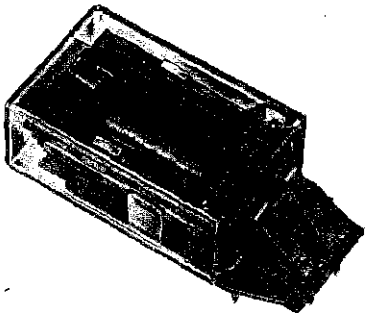
V23016-D0★★★-A★9★

1 changeover or 1 twin make contact

Dust-protected

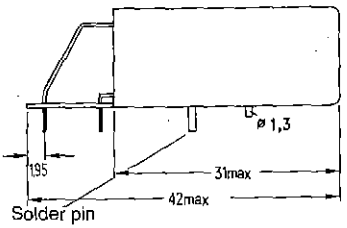
With additional solder pin for fixing

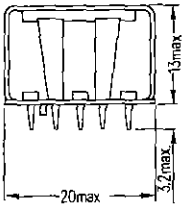
For printed circuit mounting, pin arrangement suits 2.5 mm grid in acc. with DIN 40801 and DIN 40803, fine

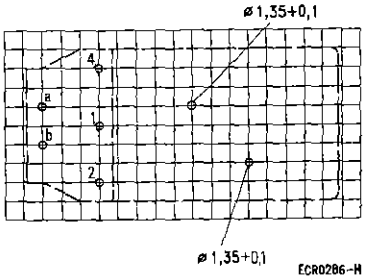


ECR0067-Y

lilustration approx. original size
Approx. weight 18 g



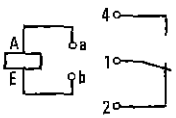




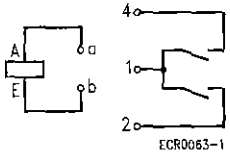
Mounting hole layout
View onto the terminals

Base terminals

Changeover



Twin make



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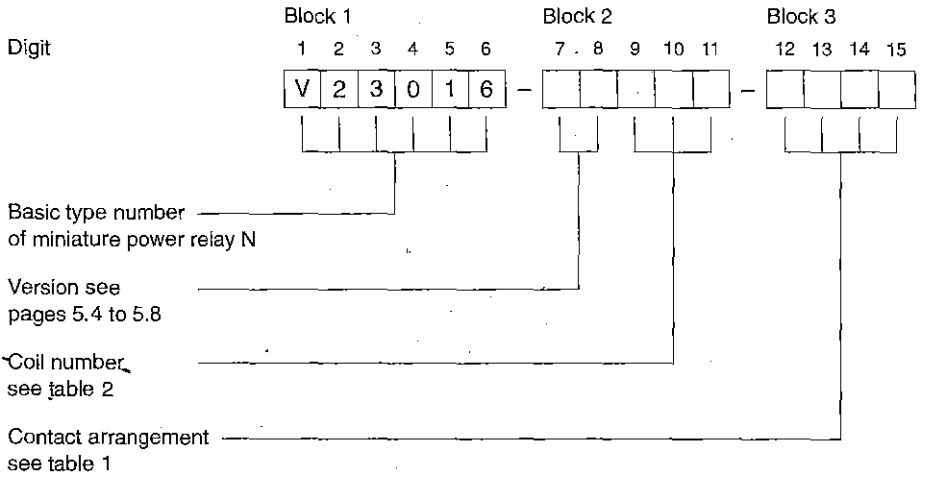
Miniature Power Relay N

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

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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

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 block 3 versions A0, B0 and C0		A101	A201	A401
Ordering code 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 [3])		
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. 2×10^8		

[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.

Table 2 Coil versions

Nominal voltage V DC	Operating voltage range at 20 °C Minimum voltage U_I V DC	Operating voltage range at 20 °C Maximum voltage U_{II} V DC	Resistance at 20 °C Ω	Coil number Ordering code block 2
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:

$U_{I\,tu} = k_I \cdot U_{I\,20\,°C}$ and $U_{II\,tu} = k_{II} \cdot U_{II\,20\,°C}$

t_u = ambient temperature

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

$U_{II\,tu}$ = 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