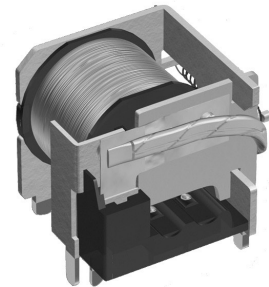


Power Relay K-S

- Very low voltage drop
- Wide voltage range

Typical applications

ABS control, blower fans, cooling fan, engine control, glow plug, heated rear screen, ignition, main switch/supply relay, preheating system, valves, wiper control.



C071S_fcw1b

Contact Data	12VDC	24VDC
Contact arrangement	1 form A, 1 NO	
Rated voltage	12VDC	24VDC
Rated current	70A	
Limiting continuous current		
23°C	70A	
85°C	50A	
Limiting making current	300A ¹⁾²⁾	150A ¹⁾²⁾
Limiting breaking current	70A ¹⁾	35A ¹⁾
Contact material	AgNi0.15	
Min. recommended contact load	1A at 5VDC ³⁾	
Initial voltage drop at 10A, typ./max.	10/300mV	
Frequency of operation	20 ops./s ⁴⁾	
Operate/release time max.	typ. 4/3ms ⁵⁾	
Electrical endurance		
resistive load,	>5x10 ⁴ ops.	>1x10 ⁵ ops.
	at 13.5VDC, 50A	at 27.5VDC, 15A
Mechanical endurance	>10 ⁶ ops.	

Coil Data	12VDC, 24VDC ⁶⁾
Rated coil voltage	12VDC, 24VDC ⁶⁾

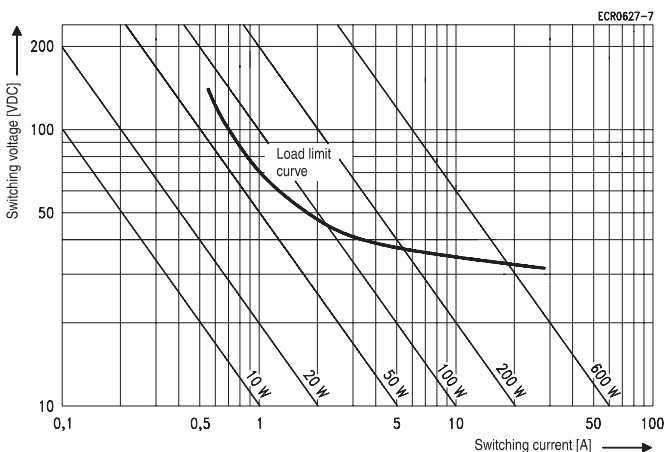
6) Other nominal voltages available on request.

Coil versions, DC coil

Coil code	Rated voltage VDC	Operate voltage VDC	Release voltage VDC	Coil resistance Ω±10%	Rated power W
009	12	6.9	1.2	64	2.3
010	24	14.1	2.4	234	2.5

All figures are given for coil without pre-energization, at ambient temperature +23°C.

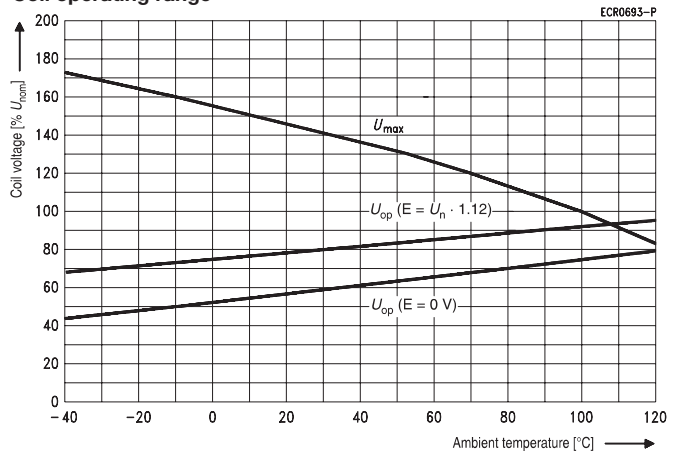
Max. DC load breaking capacity



Max. DC load breaking curve: safe shutdown, no stationary arc.
Load limit curves measured with low inductive resistors verified for 1000 switching events.

- 1) The values apply to a resistive or inductive load with suitable spark suppression and at maximum 13.5VDC for 12VDC or 27VDC for 24VDC load voltages.
- 2) For a load current duration of maximum 3s for a make/break ratio of 1:10.
- 3) See chapter Diagnostics of Relays in our Application Notes or consult the internet at <http://relays.te.com/appnotes/>
- 4) With load the values depend on PCB layer design and max. environmental temperature.
- 5) For unsuppressed relay coil. A low resistive suppression device in parallel to the relay coil increases the release time and reduces the lifetime caused by increased erosion and/or higher risk of contact tack welding (monostable version only).

Coil operating range



Does not take into account the temperature rise due to the contact current
E = pre-energization.

Insulation Data

Initial dielectric strength	
between contact and coil	500VACrms

Power Relay K-S (Continued)

Other Data

EU RoHS/ELV compliance	compliant
Ambient temperature	-40 to +85°C ⁶⁾
Category of environmental protection, IEC 61810	RT II – fluxproof
Vibration resistance (functional) IEC 68-2-6 (sine pulse form), 10 to 200Hz	20 to 40g
no change in the switching state >10µs	
Shock resistance (functional) IEC 68-2-27 (half sine form single pulses), 8ms	30g
open form A (NO) contact will not close >10µs	
Terminal type	PCB
Weight	approx. 19g (0.68oz)
Resistance to soldering heat THT IEC 60068-2-20, Tb, method 1A,	10s+/-1s with shielding
Storage conditions	according IEC 60068 ⁷⁾
Packaging unit	400 pcs.

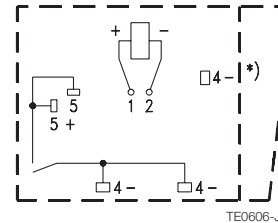
6) See graph: coil operating range.

7) For general storage and processing recommendations please refer to our Application Notes and especially to Storage in the Definitions or at <http://relays.te.com/appnotes/>

Terminal Assignment

Bottom view on solder pins

1 form A, 1 NO



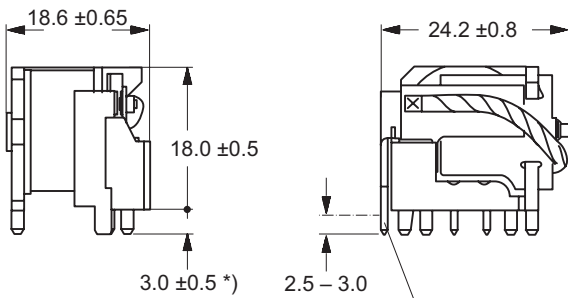
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Note:

Check polarity and frame connection (ground)

* For mounting only, not for electrical connection.

Dimensions

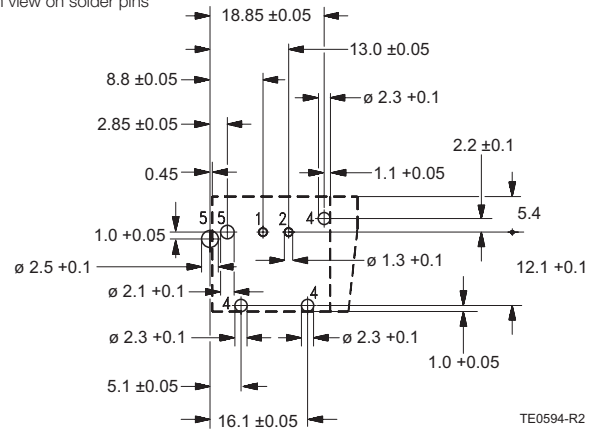


TE2184-52

*) additional tin tops max. 1.5 mm

PCB Layout

Bottom view on solder pins



TE0594-R2

Product code structure

Typical product code **V23071 -A 1 009 -A 13 2**

Type	V23071 Power Relay K-S						
Terminal and enclosure	A PCB, open (RT II)						
Design	1 Single relay						
Coil	009	12VDC	010	24VDC			
Contact type	A Single contact						
Contact material	13 AgNi0.15						
Contact arrangement	2 1 form A, 1 NO						

Product code	Terminal/Encl.	Design	Coil	Contact type	Cont. material	Arrangement	Part number
V23071-A1009-A132	PCB, open	Single relay	12 VDC	Single contact	AgNi0.15	1 form A, 1 NO	1393276-3
V23071-A1010-A132			24 VDC				1393276-7