

Pickering - Reed Relay Finder

HIGH DENSITY VERTICAL													
Series Name	124-1-A	122-1-A	120-1-A	125-2-A	117-1-A	117-2-A	116-1-A	116-2-A	115-1-A	115-2-A	112-1-A	110-1-A	
Physical Outline													
Features	Highest Quality Instrumentation Grade Reed Switches												
Dimensions mm (inches)	Ultra High Packing Density												
Footprint (0.1 inch grid)	High Packing Density												
Contact Configuration	1A (SPST)	1A (SPST)	1A (SPST)	2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST) 2A (DPST)	1A (SPST)	
Switch Schematic													
Reed Switch Type	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	General Dry Reed	
Switch Number	2	1	2	1	2	1	2	1	2	1	2	1	
Diode Available	No	No	No	Yes									
Switching Voltage/V	170 V	200 V	200 V	200 V	170 V	200 V							
Switching Current/A	0.5 A	1.0 A	0.5 A	1.0 A	0.5 A	1.0 A	0.5 A	1.0 A	0.5 A	1.0 A	0.5 A	1.0 A	
Carry Current/A	0.5 A	1.0 A	0.5 A	1.2 A									
Switch Power/W	10 W	15 W	10 W	15(3.85 V), 20 W	10 W	15(3.85 V), 20 W	10 W	15(3.85 V), 20 W	10 W	15 W	10 W	20 W	
Max Initial Contact Resistance/mΩ	180 mΩ	180 mΩ	180 mΩ	180 mΩ	120 mΩ	150 mΩ	120 mΩ						
Life	2.5 x 10 ⁸	2.5 x 10 ⁸	10 ⁸	10 ⁸	2.5 x 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	
Expectancy/operations	Typical 10 ⁸	Typical 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	
Operate Time/ms	0.2 ms	0.5 ms	0.2 ms	0.5 ms	0.3 ms	0.5 ms							
Release Time/ms	0.1 ms	0.2 ms	0.1 ms	0.2 ms									
Insulation Resistance/Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	
Coil Resistance	3 V/Q 75 Ω 5 V/Q 200 Ω 12 V/Q 750 Ω 24 V/Q -	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω	200 V 350 Ω 300 V 500 Ω 800 V 750 Ω

PLASTIC PACKAGE SIL													
Series Name	113-1-A	113P-1-A	113-2-A	113-1-C	111P-1-A	109P-1-A	106-1-A	106-1-C	105-1-A	105-1-C	105-1-B	105-2-A	103-1-A & 103M-1-A
Physical Outline													
Features	Highest Quality Instrumentation Grade Reed Switches												
Dimensions mm (inches)	High Packing Density												
Footprint (0.1 inch grid)	Smallest Form C												
Contact Configuration	1A (SPST)	1A (SPST)	2A (DPST)	1C (SPDT)	1A (SPST)	1A (SPST)	1A (SPST)	1C (SPDT)	1A (SPST)	1C (SPDT)	1B (SPNC)	2A (DPST)	1A (SPST)
Switch Schematic													
Reed Switch Type	General Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	Dry Reed	General Dry Reed	General Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	High Voltage Dry Reed	General Dry Reed	Low Level Dry Reed
Switch Number	1	2	1	2	3	1	2	3	1	2	3	1	2
Diode Available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Switching Voltage/V	200 V	200 V	200 V	200 V	30 V	170 V	200 V	200 V	200 V	200 V	500 V	200 V	200 V
Switching Current/A	1.0 A	0.5 A	0.5 A	0.5 A	0.1 A	0.5 A	1.0 A	0.5 A	1.0 A	0.5 A	0.25 A	1.0 A	0.5 A
Carry Current/A	1.0 A	0.5 A	0.5 A	0.5 A	0.1 A	0.5 A	1.0 A	0.5 A	1.0 A	0.5 A	0.25 A	1.0 A	0.5 A
Switch Power/W	15(3 V), 20 W	10 W	10 W	10 W	2 W	10 W	15(5 V), 20 W	10 W	20 W	10 W	3 W	15(5 V), 20 W	10 W
Max Initial Contact Resistance/mΩ	150 mΩ	120 mΩ	120 mΩ	120 mΩ	250 mΩ	150 mΩ	150 mΩ	120 mΩ	150 mΩ	120 mΩ	200 mΩ	150 mΩ	120 mΩ
Life	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸
Expectancy/operations	Typical 10 ⁸	Typical 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸
Operate Time/ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	1 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	1 ms	0.5 ms	0.5 ms
Release Time/ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms
Insulation Resistance/Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω
Coil Resistance	3 V/Q 250 Ω 5 V/Q 500 Ω 12 V/Q 1000 Ω 24 V/Q -	500 Ω	500 Ω	500 Ω	150 Ω	400 Ω	500 Ω	500 Ω	500 Ω				

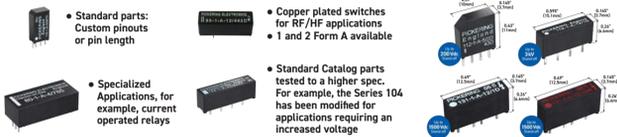
COAXIAL/RF/HIGH SPEED DIGITAL REED RELAYS											
Series Name	111RF-1-A	113RF-1-A	109RF50-1-A	109RF75-1-A	103G-1-A	103GM-1-A	102M-1-A	102M-1-B	102M-1-A	102M-1-B	
Physical Outline											
Features	Highest Quality Instrumentation Grade Reed Switches										
Dimensions mm (inches)	SoftCenter™										
Footprint (0.1 inch grid)	SoftCenter™ Construction In Mu-Metal Can										
Contact Configuration	1A (SPST)	1A (SPST)	1A (SPST)	1A (SPST)	1A (SPST)	1A (SPST)	1A (SPST)	1A (SPST)	1A (SPST)	1B (SPNC)	
Switch Schematic											
Reed Switch Type	General Dry Reed	General Dry Reed	General Dry Reed	General Dry Reed	General Dry Reed	General Dry Reed	General Dry Reed	General Dry Reed	General Dry Reed	Higher Power Dry Reed	
Switch Number	1	2	1	2	1	2	1	2	1	2	
Diode Available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Switching Voltage/V	170 V	200 V	200 V	200 V	200 V	200 V	200 V	200 V	200 V	200 V	
Switching Current/A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	
Carry Current/A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	0.5 A	
Switch Power/W	10 W	10 W	20 W	10 W	20 W	10 W	20 W	10 W	20 W	20 W	
Max Initial Contact Resistance/mΩ	150 mΩ	120 mΩ	150 mΩ	120 mΩ	150 mΩ	120 mΩ	150 mΩ	120 mΩ	150 mΩ	150 mΩ	
Life	2.5 x 10 ⁸	2.5 x 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	
Expectancy/operations	Typical 10 ⁸	Typical 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	
Operate Time/ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	
Release Time/ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	
Insulation Resistance/Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	
Coil Resistance	3 V/Q 180 Ω 5 V/Q 300 Ω 12 V/Q 600 Ω 24 V/Q -	180 Ω	300 Ω	300 Ω	375 Ω						

METAL PACKAGE SIL													
Series Name	111-1-A	109-1-A	109-1-C	109-1-B	109-2-A	108-1-A	108-1-C	108-2-A	107-1-A	107-1-C	107-1-B	107-2-A	107-2-C
Physical Outline													
Features	Highest Quality Instrumentation Grade Reed Switches												
Dimensions mm (inches)	SoftCenter™ Construction In Mu-Metal Can												
Footprint (0.1 inch grid)	SoftCenter™ Construction In Mu-Metal Can												
Contact Configuration	1A (SPST)	1A (SPST)	1C (SPDT)	1B (SPNC)	2A (DPST)	1A (SPST)	1C (SPDT)	2A (DPST)	1A (SPST)	1C (SPDT)	1B (SPNC)	2A (DPST)	2C (DPDT)
Switch Schematic													
Reed Switch Type	General Dry Reed	General Dry Reed	Low Level Dry Reed	Dry Reed	Low Level Dry Reed	General Dry Reed	Low Level Dry Reed	Dry Reed	General Dry Reed	Low Level Dry Reed	High Voltage Dry Reed	Dry Reed	General Dry Reed
Switch Number	1	2	1	2	2	1	2	3	1	2	3	1	2
Diode Available	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Switching Voltage/V	170 V	200 V	30 V	200 V	200 V	200 V	200 V	200 V	200 V	400 V	200 V	200 V	200 V
Switching Current/A	0.5 A	1 A	0.5 A	0.1 A	0.5 A	1 A	0.5 A	0.25 A	1 A	0.5 A	1 A	0.5 A	0.25 A
Carry Current/A	0.5 A	1.2 A	0.1 A	1.2 A	1.2 A	1.2 A							
Switch Power/W	10 W	15(5 V), 20 W	10 W	2 W	10 W	20 W	10 W	3 W	15(5 V), 20 W	10 W	15(5 V), 20 W	10 W	3 W
Max Initial Contact Resistance/mΩ	150 mΩ	150 mΩ	120 mΩ	250 mΩ	120 mΩ	140 mΩ	150 mΩ	150 mΩ	150 mΩ	120 mΩ	150 mΩ	150 mΩ	220 mΩ
Life	2.5 x 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸
Expectancy/operations	Typical 10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸	10 ⁸
Operate Time/ms	0.5 ms	0.5 ms	0.75 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.75 ms	1 ms	0.5 ms	1 ms
Release Time/ms	0.2 ms	0.2 ms	0.5 ms	0.2 ms	0.2 ms	0.5 ms							
Insulation Resistance/Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω	10 ¹² Ω
Coil Resistance	3 V/Q 200 Ω 5 V/Q 500 Ω 12 V/Q 1000 Ω 24 V/Q -	200 Ω	330 Ω	100 Ω	200 Ω	330 Ω	330 Ω	200 Ω					

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Custom Reed Relays

Pickering may be able to adapt an existing relay or design a special part to suit your needs. Some examples are below:



Help with your Custom Requirements

Go to: pickeringrelay.com/reed-relays/custom-reed-relays

If your questions are not answered there please call +44 (0) 1255 428141 or e-mail: techsales@pickeringrelay.com

For a free evaluation sample call technical sales on +44 (0) 1255 428141, or e-mail sales@pickeringrelay.com

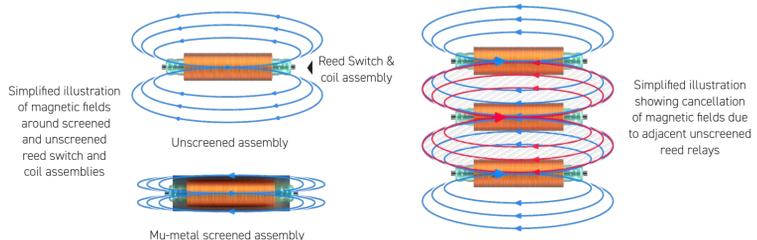
Choosing a Reed Relay

Signal Voltage, Current and Power Specification

For all reed relays, it is important to stay within the voltage, current and power ratings to ensure a long service life. If hot switching, select a part with adequate switching specifications to meet the requirements, ensuring the product of the switched voltage and current do not exceed the power rating. If cold switching, ensure the continuous or pulsed carry current is within the ratings.

SMD or Thru Hole Mounting

When choosing between surface mount or thru hole packages, the user needs to consider which will offer the best solution for their application. Packing density may be a consideration, in which case it is important to use parts with a full magnetic screen for optimum performance, a key feature in Pickering reed relays.



If the reed relay is hot switching loads that may result in wear or contact degradation, it could be regarded as a service item or subject to regular replacement intervals and it can be much easier to remove and replace thru hole devices compared to surface mount types. In low level or cold switching applications, a reed relay can be expected to achieve billions of operations so may never need replacing in the life of the equipment.

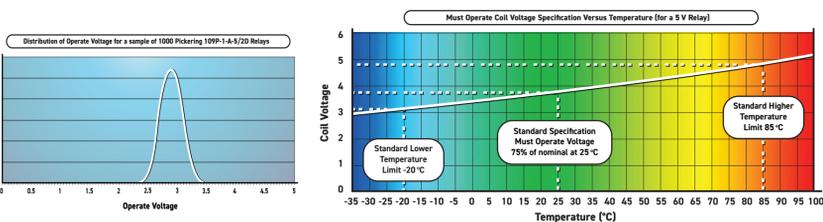
Diode or No Diode

Reed relays often have a choice to include an internal protection diode across the coil. The purpose of this diode is to conduct and clamp the back EMF voltage that is generated when the device is turned off protecting the coil driver from potentially damaging voltage spikes.

Coil Voltage

Reed relays coils are supplied with a variety of coil voltage options and are designed to have a resistance to give sufficient ampere-turn drive levels to ensure the correct operation for the switch type required for the application. It is also important to include a reasonable operating margin to accommodate variations in the operating conditions so that must operate and release voltage specifications will be less than the nominal coil voltage, typically 75% and 10% respectively at 25 °C.

As coil resistance, and therefore drive level changes with temperature by approximately 0.39% per °C, this margin will ensure the device operates correctly at its maximum temperature rating.



The graph on the left shows actual distribution of operate voltages for a batch of 1000 Pickering relays. The graph on the right shows how this changes with temperature.

Other factors could include voltage drops across drivers, external magnetic fields or power supply voltage variations. Pickering utilizes former-less coils and full magnetic screening to maximize efficiency ensuring adequate overdrive optimizing both performance and life.

Key Benefit	Pickering Reed Relays	Typical Industry Reed Relays
1 Instrumentation Grade Reed Switches	Instrumentation Grade Reed Switches with vacuum sputtered Ruthenium plating to ensure stable, long life up to 5x10E9 operations.	Often low grade Reed Switches with electroplated Rhodium plating resulting in higher, less stable contact resistance.
2 Formerless Coil Construction	Formerless coil construction increases the coil winding volume, maximizing magnetic efficiency, allowing the use of less sensitive reed switches resulting in optimal switching action and extended lifetime at operational extremes.	Use of bobbins decreases the coil winding volume, resulting in having less magnetic drive and a need to use more sensitive reed switches which are inherently less stable with greatly reduced restoring forces.
3 Magnetic Screening	Mu-metal magnetic screening (either external or internal), enables ultra-high PCB side-by-side packing densities with minimal magnetic interaction, saving significant cost and space. Pickering Mu-Metal magnetic screen - interaction approx. 5%.	Lower cost reed relays have minimal or no magnetic screening, resulting in magnetic interaction issues causing changes in operating and release voltages, timing and contact resistance, causing switches to not operate at their nominal voltages. Typical industry screen - interaction approx. 30%.
4 SoftCenter™ Technology	SoftCenter™ technology, provides maximum cushioned protection of the reed switch, minimising internal lifetime stresses and extending the working life and contact stability.	Transfer moulded reed relays (produced using high temperature/pressure), result in significant stresses to the glass reed switch which can cause the switch blades to deflect or misalign leading to changes in the operating characteristics, contact resistance stability and operating lifetime.
5 100% Dynamic Testing	100% testing for all operating parameters including dynamic contact wave-shape analysis with full data scrutiny to maintain consistency.	Simple dc testing or just batch testing which may result in non operational devices being supplied.
6 100% Inspection at Every Stage of Manufacturing	Inspection at every stage of manufacturing maintaining high levels of quality.	Often limited batch inspection.
7 100% Thermal Cycling	Stress testing of the manufacturing processes, from -20 °C to +85 °C to -20 °C, repeated 3 times.	Rarely included resulting in field failures.
8 Flexible Manufacturing Process	Flexible manufacturing processes allow quick-turn manufacturing of small batches.	Mass production: Usually large batch sizes and with no quick-turn manufacturing.
9 Custom Reed Relays	Our reed relays can be customized easily, e.g. special pin configurations, enhanced specifications, non-standard coil or resistance figures, special life testing, low capacitance, and more.	Limited ability to customize.
10 Product Longevity	Pickering are committed to product longevity, our reed relays are manufactured and supported for more than 25 years from introduction, typically much longer.	Most other manufacturers discontinue parts when they reach a low sales threshold; costing purchasing and R&D a great deal of unnecessary time and money to redesign and maintain supply.

Free Literature, Relay Selection and Samples

The Reed RelayMate



This book from Pickering Electronics is a publication which looks in detail at reed relays. In it you'll find out how reed relays are constructed, what types there are, how they work, what parameters affect their operation, how to choose the correct relay, a comparison with other relay technologies and how to drive and place reed relay coils.

The Reed RelayMate is available FREE from the Pickering Electronics' website in printed copy or pdf format.

The Concise Technical Guide



This guide will help you to maximise the reliability of your design whilst using Reed Relays. Contents include: temperature effects, contact abuse, magnetic interaction, as well as Pickering's unique manufacturing techniques such as former-less coils and SoftCenter™ construction, offering many benefits over other relay manufacturers.

The Concise Technical Guide is available FREE from the Pickering Electronics' website in printed copy or pdf format.

The Reed Relay Selector Tool



Because Pickering offer the largest range of high-quality reed relays, sometimes it can be difficult to find the right reed relay you require. That is why we created the Reed Relay Selector. The tool will help you narrow down our offering to get you the correct reed relay for your application. Once you narrow your selections down you can download a reed relay datasheet for more information, purchase in stock items or request a quote to find out lead times of made to order (MTO) relays.

Go to: pickeringrelay.com/reed-relay-selector-tool



FREE working evaluation samples are available on request.

Go to: pickeringrelay.com/samples

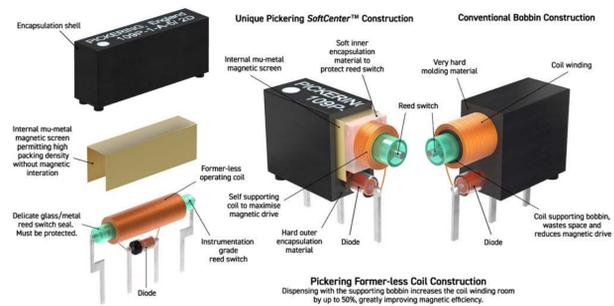


Glossary of Relay Terms

For a glossary of terms used in Reed Relay manufacture visit: pickeringrelay.com/glossary/

Pickering SoftCenter™ Technology

Typical Pickering Construction using Former-less Coils and our SoftCenter™ technology



To learn more visit: pickeringrelay.com/softcenter

SURFACE MOUNT

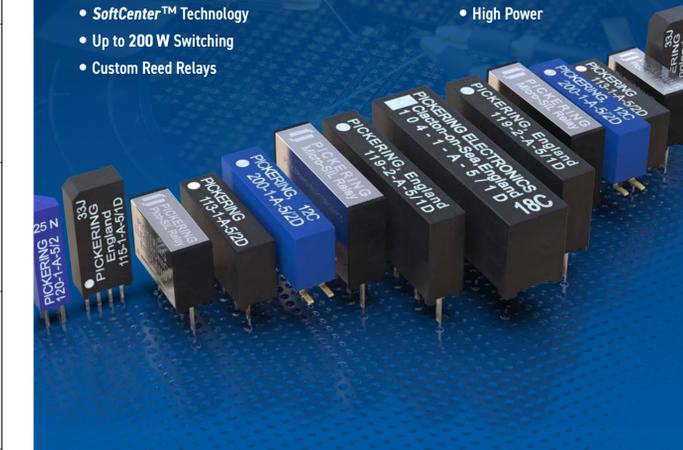
Series Name	SURFACE MOUNT								RF						
	200-1-A	200-2-A	200-1-C	200-1-B	219-1-A	219-2-A	219-1-B	200RF	102F-1-A						
Physical Outline															
Features	Highest Quality Instrumentation Grade Reed Switches Only Surface Mount Reed Relay Available with SoftCenter™ Construction														
Dimensions mm (inches)	Depth 3.9 (0.154)	5.85 (0.23)			10.5 (0.413)			4.00 (0.154)	7.4 (0.3)						
	Width 15.25 (0.6)	20.0 (0.79)	15.25 (0.6)	15.25 (0.6)	17.2 (0.677)			15.25 (0.6)	13.5 (0.53)						
	Height 6.8 (0.27)	9.0 (0.35)	8.8 (0.35)	8.8 (0.35)	8.5 (0.335)			6.8 (0.27)	4.8 (0.19)						
Contact Configuration	1A (SPST)	2A (DPST)	1C (SPDT)	1B (SPNC)	1A (SPST)	2A (DPST)	1B (SPNC)	1A (SPST)	1A (SPST)						
Switch Schematic															
Reed Switch Type	General Dry Reed	Low Level Dry Reed	High Volt Dry Reed	Low Level Dry Reed	Dry Reed	Low Level Dry Reed	1.5kV Min Stand Off	2kV Min Stand Off	3kV Min Stand Off	1.5kV Min Stand Off	1.5kV Min Stand Off	2kV Min Stand Off	Low Level Dry Reed	General Dry Reed	Higher Power Dry Reed
Switch Number	1	2	4	2	3	2	1	2	3	1	2	2	1	2	
Diode Available	Yes														
Switching Voltage/V	200V	500V	200V	200V	200V	1000V	1000V	200V	200V	1000V	1000V	200V	200V	200V	
Switching Current/A	1A	0.5A	0.5A	0.5A	0.25A	0.5A	0.7A	0.7A	0.7A	0.5A	0.5A	1A	0.5A	1A	
Carry Current/A	1.2A	1.2A	1.2A	1.2A	1.2A	1.2A	1.25A	1.25A	1.25A	1.2A	1.2A	1.2A	1.2A	1.2A	
Switch Power/W	15(SV), 20	10W	10W	10W	3W	10W	10W	10W	10W	10W	10W	10W	10W	20W	
Max Initial Contact Resistance/mΩ	150 mΩ	120 mΩ	150 mΩ	120 mΩ	200 mΩ	120 mΩ	170 mΩ	170 mΩ	170 mΩ	120 mΩ	100 mΩ	100 mΩ	100 mΩ	100 mΩ	
Life Expectancy/operations	10 ⁹														
Operate Time/ms	0.5 ms	0.5 ms	0.5 ms	1ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	0.5 ms	
Release Time/ms	0.2 ms	0.2 ms	0.2 ms	0.5 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	0.2 ms	
Insulation Resistance/Ω	10 ¹² Ω														
Coil Resistance	3V/Q	250 Ω	-	-	-	100 Ω	75 Ω	50 Ω	50 Ω	50 Ω	-	250 Ω	-	-	
	5V/Q	500 Ω	250 Ω	250 Ω	500 Ω	750 Ω	500 Ω	100 Ω	100 Ω	100 Ω	250 Ω	500 Ω	375 Ω	-	
	12V/Q	1000 Ω	1000 Ω	1000 Ω	1000 Ω	750 Ω	500 Ω	400 Ω	400 Ω	400 Ω	-	1000 Ω	1000 Ω	-	

HIGH SWITCHING POWER

Series Name	HIGH SWITCHING POWER						100HC					
	114-1-A	114-2-A	114-1-B	144-1-A	144-2-A	144-1-B	100HC-1-A	100HC-2-A	100HC-1-B			
Physical Outline												
Features	Highest Quality Instrumentation Grade Reed Switches High Power											
Dimensions mm (inches)	Depth 6.3 (0.245)			6.3 (0.245)			10.2 (0.40)					
	Width 24.1 (0.95)		29.0 (1.14)		24.1 (0.95)		29 (1.14)		24.1 (0.95)			
	Height 8.2 (0.32)		12.5 (0.49)		8.2 (0.32)		12.5 (0.49)		12.7 (0.50)			
Footprint (0.1 inch grid)	-			-			-					
Contact Configuration	1A (SPST)	2A (DPST)	1B (SPNC)	1A (SPST)	2A (DPST)	1B (SPNC)	1A (SPST)	2A (DPST)	1B (SPNC)			
Switch Schematic												
Reed Switch Type	High Power Dry Reed			2kV Min Stand Off			3kV Min Stand Off			2kV Min Stand Off		
Switch Number	1			2			2			1		
Diode Available	Yes											
Switching Voltage/V	200 VDC 240 VAC (500 V min stand off)						1000 [250] V			200 VDC 240 VAC (500 V min stand off)		
Switching Current/A	1A						2 (1/0.01) A			1A		
Carry Current/A	3 A						3 A			3 A		
Switch Power/W	40 W						80 [60/10] W			40 W		
Max Initial Contact Resistance/mΩ	150 mΩ			250 mΩ			150 mΩ			200 mΩ		
Life Expectancy/operations	10 ⁹											
Operate Time/ms	1ms											
Release Time/ms	0.5 ms											
Insulation Resistance/Ω	10 ¹² Ω											
Coil Resistance	3V/Q	75 Ω	-	-	-	-	500 Ω	300 Ω	300 Ω	500 Ω	300 Ω	300 Ω
	5V/Q	250 Ω	150 Ω	350 Ω	200 Ω	200 Ω	1000 Ω	1000 Ω	1000 Ω	2000 Ω	1000 Ω	1000 Ω
	12V/Q	750 Ω	250 Ω	125 Ω	750 Ω	750 Ω	2000 Ω	2000 Ω	2200 Ω	4000 Ω	4000 Ω	4000 Ω
	24V/Q	2000 Ω	1000 Ω	2200 Ω	2000 Ω	2000 Ω	-	-	-	-	-	-

pickering Reed Relay Finder

- Highest Quality Instrumentation Grade Reed Switches
- RF/High Speed Digital Switching
- Coaxial/RF/High Speed Digital
- Ultra High Packing Density
- SoftCenter™ Technology
- Up to 200 W Switching
- Custom Reed Relays
- Low Thermal EMF
- Low Capacitance
- Data Acquisition
- High Voltage
- High Power



The Reed Relay Finder is a single sheet reference to Pickering's high quality range of Reed Relays, including their basic specifications.



pickering Reed Relay Finder

About Pickering Electronics
Pickering Electronics was formed in January 1968 to design and manufacture high quality reed relays, intended principally for use in instrumentation and automatic test equipment. Today, the UK facility is responsible for Product Development, Technical Back-up, Sales, Marketing and Administration. Manufacturing is shared between the UK factory and a large modern plant in Trinec, Czech Republic, with strict Quality Control and ISO 9001 certification at both facilities. Pickering Electronics s.r.o. is 100% owned by Pickering Electronics Ltd., England. Pickering Electronics offer an extensive range of high quality instrumentation grade reed relays designed for applications requiring the highest levels of performance and reliability at an affordable price. Through the experience of supporting the most demanding manufacturers of large ATE systems with high relay counts the company has refined its assembly and quality control methods to optimise its manufacturing methods. Working with its sister company, Pickering Interfaces (pickeringtest.com), Pickering Electronics has developed innovative reed relay solutions designed to provide high coil efficiency, low switch volume and low PCB footprint solutions to meet the demands of modern equipment manufacturers.



Faster Switching Speeds | Extended Lifetime > 10 Billion Operations | Use 75% Less PCB Space

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Scan here to find your local representative

REACH RoHS ISO 9001

Pickering Electronics maintains a commitment to continuous product development, consequently we reserve the right to vary from the descriptions given in this document.
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