## PICKERING SERIES 200

## Surface Mount Reed Relays Including coaxial types for up to 5 GHz



## FEATURES

## - SoftCenter ${ }^{\text {TM }}$ construction

- Highest quality instrumentation grade switches
- Encapsulated in plastic package with internal mu-metal screen for side-by-side mounting without magnetic interaction
- Insulation resistance greater than $10^{12}$ ohms for Form A devices
- Dry and mercury wetted switches available
- Wide range of switch configurations - 1 Form A, 1 Form B, 2 Form A and 1 Form C
- For R.F. or high speed digital applications, 50 or 75 ohms coaxial devices are available in the same small package
- 3,5, and 12 volt coils are standard, with or without internal diode
- $100 \%$ tested for dynamic contact resistance

The Series 200 is a complete range of surface mount reed relays. Both dry and mercury wetted switches are available in a wide range of configurations including coaxial types for RF up to 5 GHz , or high speed digital switching with a step response time of less than 30 ps. Please contact our technical department for supplementary RF data.
The special high temperature plastic package will withstand the temperatures associated with Infra-red or vapour phase reflow soldering processes. A flexible inner encapsulant protects the sensitive glass/metal reed switch seals - this is a very big advantage over the more usual hard moulded package.

## Switch Ratings - Dry Switches

- 1 Form A (energize to make), 10 watts at 200V
- 1 Form A (energize to make), 15 watts at 200 V
- 1 Form A (energize to make), 10 watts at 500 V
- Coaxial $50 \Omega$ (energize to make), 10 watts at 200 V
- Coaxial $75 \Omega$ (energize to make), 10 watts at 200 V
- 1 Form B (energize to break), 10 watts at 200 V
- 1 Form C (change-over), 3 watts at 200 V
- 2 Form A (energize to make), 10 watts at 200 V

Switch Ratings - Mercury Wetted Switches

- 1 Form A (energize to make), 50 watts at 500 V
- 1 Form A (Position insensitive), 30 watts at 350 V


Dry Reed - Series 200 switch ratings The contact ratings for each switch type are shown below:

| Sw. <br> No | Switch form | Power rating | Мах. switch current | Max. carry current | Max. switching volts | Special <br> Features |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | A | 15 Watts | 0.75 Amp. | 1.2 Amp. | 200 | General purpose |
| 2 | A or B | 10 Watts | 0.5 Amp. | 1.2 Amp. | 200 | Low level |
| 3 | C | 3 Watts | 0.25 Amp. | 1.2 Amp. | 200 | Change over |
| 4 | A | 10 Watts | 0.5 Amp. | 1.2 Amp. | 500 | High Voltage |

Switch no. 2 is particularly good for switching low currents and/or voltages. It is the ideal switch for Automatic Test Equipment where cold switching techniques are often used. Where higher power levels are involved, switch no. 1 is a more suitable choice.

## Dry Relay - Coil data and type numbers

| Device description | Type number | Coil (V) | Coil resist. (ohms) | Contact resist. max. (initial) | Package Number |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Form A (energize to make) General Purpose Sw. No. 1 | $\begin{aligned} & 200-1-\mathrm{A}-5 / 1 \mathrm{D} \\ & 200-1-\mathrm{A}-12 / 1 \mathrm{D} \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{gathered} 500 \\ 1000 \end{gathered}$ | $\begin{aligned} & 0.15 \Omega \\ & 0.15 \Omega \end{aligned}$ | 1 |
| 1 Form A (energize to make) Low Level Switch No. 2 | $\begin{aligned} & 200-1-A-3 / 2 D \\ & 200-1-A-5 / 2 D \\ & 200-1-A-12 / 2 D \end{aligned}$ | $\begin{gathered} 3 \\ 5 \\ 12 \end{gathered}$ | $\begin{aligned} & 250 \\ & 500 \\ & 1000 \end{aligned}$ | $\begin{aligned} & 0.12 \Omega \\ & 0.12 \Omega \\ & 0.12 \Omega \end{aligned}$ | 1 |
| 1 Form A 50 ohms coaxial Low Level Switch No. 2 | $\begin{aligned} & \text { 200RF50-1-A-5/2D } \\ & \text { 200RF50-1-A-12/2D } \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{aligned} & 250 \\ & 600 \end{aligned}$ | $\begin{aligned} & 0.12 \Omega \\ & 0.12 \Omega \end{aligned}$ | 2 |
| 1 Form A 75 ohms coaxial Low Level Switch No. 2 | $\begin{aligned} & \text { 200RF75-1-A-5/2D } \\ & \text { 200RF75-1-A-12/2D } \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{aligned} & 250 \\ & 600 \end{aligned}$ | $\begin{aligned} & 0.12 \Omega \\ & 0.12 \Omega \end{aligned}$ | 2 |
| 1 Form A (energize to make) High Voltage Switch No. 4 | $\begin{aligned} & 200-1-A-5 / 4 D \\ & 200-1-A-12 / 4 D \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{gathered} 500 \\ 1000 \end{gathered}$ | $\begin{aligned} & 0.15 \Omega \\ & 0.15 \Omega \end{aligned}$ | 5 |
| 1 Form C (change-over) Switch No. 3 | $\begin{aligned} & 200-1-C-5 / 3 D \\ & 200-1-C-12 / 3 D \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{gathered} 500 \\ 1000 \end{gathered}$ | $0.20 \Omega$ | 6 |
| 1 Form B (energize to break) Low Level Switch No. 2 | $\begin{aligned} & 200-1-B-5 / 2 D \\ & 200-1-B-12 / 2 D \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{gathered} 750 \\ 1000 \end{gathered}$ | $\begin{aligned} & 0.12 \Omega \\ & 0.12 \Omega \end{aligned}$ | 4 |
| 2 Form A (energize to make) Low Level Switch No. 2 | $\begin{aligned} & 200-2-A-5 / 2 D \\ & 200-2-A-12 / 2 D \end{aligned}$ | $\begin{gathered} 5 \\ 12 \end{gathered}$ | $\begin{gathered} 400 \\ 1000 \end{gathered}$ | $\begin{aligned} & 0.12 \Omega \\ & 0.12 \Omega \end{aligned}$ | 3 |

When an internal diode is required, the suffix $D$ is added to the part number as shown in the table. If a diode is not required, the $D$ suffix should be omitted.

Mercury Reed - Series 200 switch ratings
The contact ratings for each switch type are shown below:

| Sw. <br> No | Switch form | Power rating | Max. switch current | Max. carry current | Max. switching volts | Special Features |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | A | 50 Watts | 2 Amp. | 3 Amp. | 500 | Standard Mercury |
| 8 | A | 30 Watts | 0.75 Amp. | 2 Amp. | 350 | Position Insensitive |

## Mercury Relay - Coil data and type numbers

| Device <br> type | Type Number | Coil <br> voltage | Coil <br> resistance | Max. contact <br> resistance (initial) |
| :--- | :--- | :---: | :---: | :---: |
| 1 Form A (energize to make) <br> Switch No. 6 | 200-1-A-5/6D <br> 200-1-A-12/6D | 5 | 140 | 0.075 Ohms |
|  | 12 | 500 | 0.075 Ohms |  |
| 1 Form A (energize to make) <br> Position Insensitive Switch No. 8 | 200-1-A-5/8D | 5 | 140 | 0.100 Ohms |
| $200-1-\mathrm{A}-12 / 8 \mathrm{D}$ | 12 | 500 | 0.100 Ohms |  |

When an internal diode is required, the suffix $D$ is added to the part number as shown in the table. If a diode is not required, the $D$ suffix should be omitted.

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ISO9001
Manufacture of Reed Relays FM 29036

## Pin configuration and dimensional data

Dimensions in Millimetres (Inches in brackets).


## Mercury Relays

With the exception of the position insensitive type, mercury relays should be mounted vertically in the direction of the arrow.

## Order Code

The following example indicates data required to process your order promptly:
200-1-A-5/2D

Series
Number of reeds
Switch form
Coil voltage
Switch number (See table adjacent)
Diode if fitted (Omit if not required)

## Help !!!

If you need any technical advice or help in any way, please telephone our Technical Sales Department. There is a limit to how much data we can put on a sales leaflet and we will always be pleased to discuss Pickering reed relays with you.

Please ask us for a FREE evaluation sample

