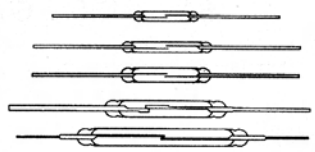
Reed Switch Selection

Dry Switches

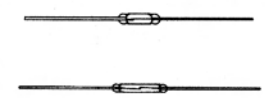
General application switches
Switching power rating of 10 watt. Applications are wide including switching signal loads, driving electromechanical relays, etc.

HYR 1532 ▶
HYR 2001 ▶
HYR 2034 ▶
HYR 4001 ▶
HYR 5051 ▶



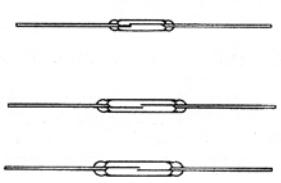
Ultraminiature switches
With glass capsule length of 9.5 to 12mm. These switches use very little space. Applications include miniature reed relays, keyboards, ect.

HYR 1002 ▶
HYR 1003 ▶



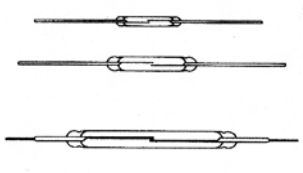
High power switches
Switching power rating between 20 and 70 Watt. May be used for directly switching power line voltages, i.e. 110 VAC or 220 VAC.

HYR 1531 (for 110VAC) ▶
HYR 2003-1 (for 220VAC)
HYR 2003-2 (high power) ▶
HYR 2016 ▶ (for more than 220VAC)



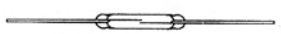
High voltage breakdown switches
Breakdown voltage rated from 1,000 to 2,000 Volt.
Reed switches with ratings up to 15 KV are available in larger sizes.

HYR 1559 ▶
HYR 2016 ▶
HYR 5006 ▶
HYR 5007 ▶
HYR 5008 ▶



High insulation resistance switches
With I. R. rated at more than 10E + 13 Ohm.

HYR 2010 ▶



Low thermal EMF and RF switches
With thermal EMF ratings as low as 5 μV / deg. C (other switches are approx. 40 μV / deg. C). These switches are often applied in test equipment. They may also be used in RF applications due to low insertion loss characteristics.

HYR 2011 ▶

High inrush current switches
May be used for switching incandescent lamp or capacitive loads without external current limiting resistors.

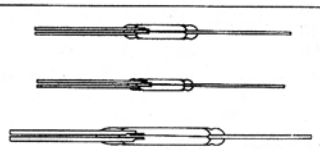
HYR 1506 ▶

Close differential switches
Feature low magnetic hysteresis between contact closure and opening.

HYR 2031-1 ▶

From "C" switches
Feature break-before-make, single pole double through (SPDT) contacts.

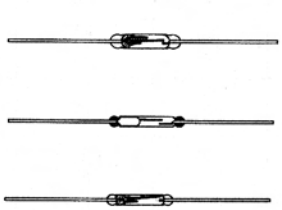
HYR 1554 ▶
HYR 1555 ▶
HYR 4003 ▶



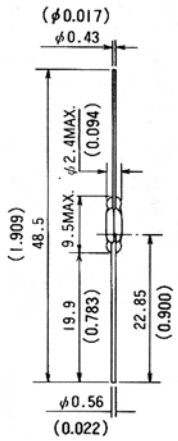
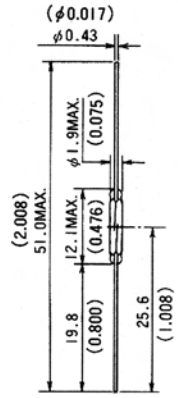
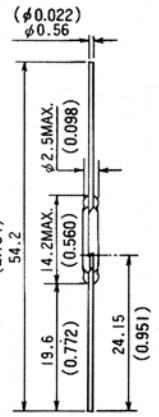
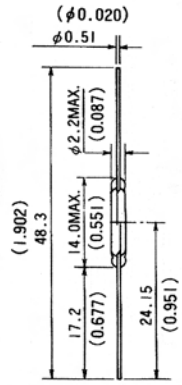
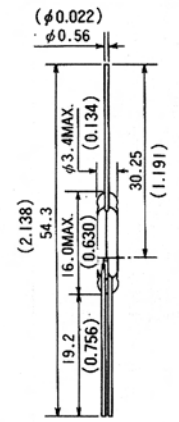
Mecury Wetted Switches

Use mercury within the glass capsule, and high purity pressurized Hydrogen (H_2).
These switches feature no-bounce switching, low and stable contact resistance, high power contact rating, high voltage breakdown and long life.

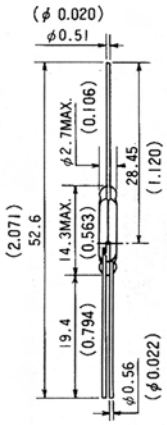
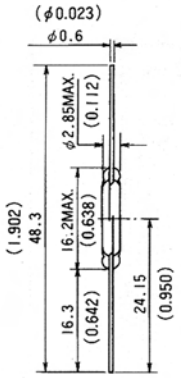
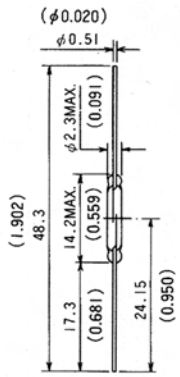
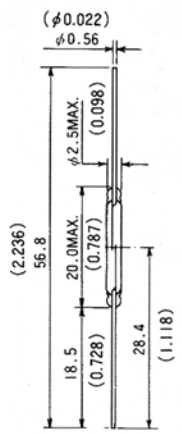
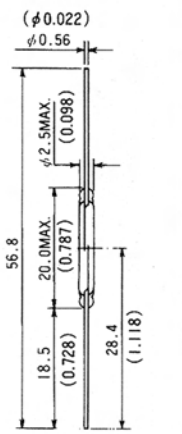
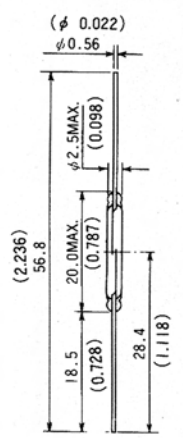
HYR 9001 (general purpose)
HYR 9001-1 (High Voltage breakdown)
HYR 9004-9 (High insulation resistance) ▶
HYR 9004-1 (general purpose) ▶
HYR 9005-1 (High operating speed)
HYR 9005-9 (High insulation resistance) ▶



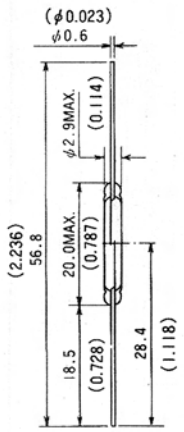
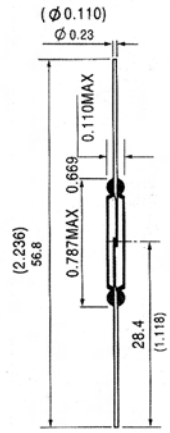
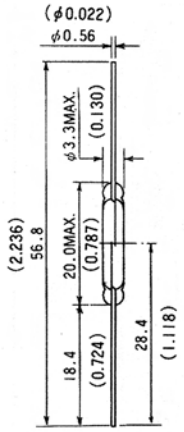
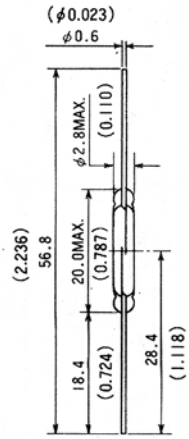
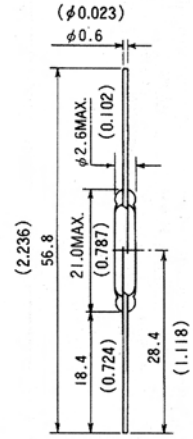
Dry Reed Switches

Part No.	HYR1002	HYR1003	HYR1531	HYR1532	HYR1554
Dimensions Unit : mm(inch)					 ※HYR1554-1 N.O. & N.C. leads are formed 2.54mm spacing
Contact Form	IA	IA	IA	IA	IC
Contact Position *1	0	C	0	C	0
Contact Material	Rhodium	Rhodium	Ruthenium *4	Ruthenium *4	Ruthenium *3
Max. Contact Rating	0.3W	3W	20W	10W	3W
Max. Switching Voltage	28VDC	28VDC	200VDC	200VDC	100VDC
Max. Switching Current	0.01A	0.11A	0.5A	0.5A	0.25A
Max.Initial Contact Resistance	200mΩ	200mΩ	150mΩ	150mΩ	200mΩ
Pull in Value (AT)	15-50	10-35	15-50	15-50	15-50
Min. Drop out Value (AT)	8	4	7	5	8
Min. Breakdown Voltage *2	200VDC	200VDC	250VDC	250VDC	200VDC
Max. Contact Capacitance	0.2pF	0.2pF	0.4pF	0.4pF	0.8pF
Min. Insulation Resistance	10^{10}Ω	10^{10}Ω	10^{9}Ω	10^{10}Ω	10^{9}Ω
Typ. Resonant Frequency	3.5kHz	5kHz	2.8kHz	4.8kHz	2.4kHz
Electrical Life (Resistive loads)	10^{7} (5VDC,10mA) 10^{6} (24VDC,10mA)	7×10^{6} (5VDC,10mA) 10^{6} (24VDC,100mA)	10^{8} (10mVDC,10μA) 10^{5} (100VDC,100mA)	10^{8} (10mVDC,10μA) 10^{5} (100VDC,100mA)	10^{8} (10mVDC,10μA) 2×10^{6} (12VDC,250mA)
Test Coil	TC-0501		TC-0502		
Features	Ultra miniature	Ultra miniature	High power	General application	Single pole, double throw

Dry Reed Switches

HYR1555	HYR1506	HYR1559	HYR2001	HYR2031	HYR2031-1
 ※HYR1555-I N.O. & N.C. leads are formed 2.54mm spacing					
IC	IA	IA	IA	IA	IA
O	C	C	C	C	C
Ruthenium *3	Rhodium	Ruthenium *3	Rhodium	Ruthenium *4	Ruthenium *4
3W	10W	10W	10W	10W	3W
100VDC	100VDC	500VDC	200VDC	200VDC	100VDC
0.25A	0.5A	0.5A	0.5A	0.5A	0.11A
200mΩ	150mΩ	200mΩ	100mΩ	100mΩ	200mΩ
15-50	40-80	15-50	15-50	15-50	15-50
7	20	5	6	6	75%ratio min.
200VDC	250VDC	1,500VDC	300VDC	300VDC	200VDC
0.8pF	0.4pF	0.4pF	0.4pF	0.4pF	0.6pF
10^9 Ω	10^{10} Ω	10^{10} Ω	10^{10} Ω *5	10^{10} Ω	10^{10} Ω
2.4kHz	3kHz	4.8kHz	3kHz	3kHz	3kHz
10^8 (10mVDC,10μA) 2×10^6 (12VDC,250mA)	10^4 (12VDC,3.4W lamp)	10^8 (10mVDC,10μA) 5×10^6 (250VDC,10mA)	10^7 (5VDC,10mA) 10^6 (100VDC,100mA)	10^7 (5VDC,10mA) 10^6 (100VDC,100mA)	10^7 (5VDC,10mA) 5×10^5 (100VDC,100mA)
TC-0502					
Single pole, double throw	High inrush current	High breakdown voltage	General application	General application	Close differential

Dry Reed Switches

Part No.	HYR2003-1	HYR2003-2	HYR2034	HYR2011	HYR2016
Dimensions Unit : mm(inch)					
Contact Form	IA	IA	IA	IA	IA
Contact Position *1	C	C	C	C	C
Contact Material	Rhodium	Rhodium	Ruthenium *4	Rhodium	Rhodium
Max. Contact Rating	70W	50W	10W	10W	25W
Max. Switching Voltage	220VDC	200VDC	200VDC	200VDC	1,000VDC
Max. Switching Current	0.7A	1.0A	0.5A	0.1A	1A
Max. Initial Contact Resistance	100m Ω	0.10m Ω	100m Ω	100m Ω	100m Ω
Pull in Valve (AT)	20-60	20-60	15-70	20-60	15-70
Min. Drop out Valve (AT)	8	6	6	6	6
Min. Breakdown Voltage *2	300VDC	300VDC	300VDC	250VDC	2,500VDC
Max. Contact Capacitance	0.4pF	0.4pF	0.4pF	0.3pF	0.4pF
Min. Insulation Resistance	10^9 Ω	10^9 Ω	10^{10} Ω	10^{10} Ω	10^{11} Ω
Typ. Resonant Frequency	2.5kHz	2.5kHz	2.2kHz	2.2kHz	2.2kHz
Electrical Life (Resistive loads)	10^7 (24VDC, 100mA) 10^6 (200VDC, 250mA)	10×10^6 (24VDC, @100mA) 1×10^6 (200VDC, @250mA)	3×10^7 (10VDC, 4mA) 25×10^5 (20VDC, 0.5A)	5×10^6 (10VDC, 4mA) 10^4 (200VDC, 50mA)	2×10^6 (1,000VDC, 10mA)
Test Coil	TC-0502				
Features	High power	High power	General application	Low thermal EMF, RF switches	Vacuum, High power, High breakdown voltage

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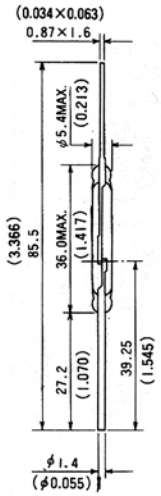
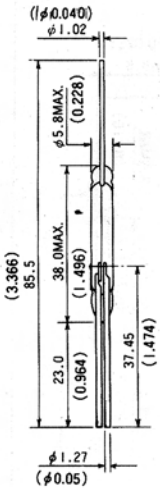
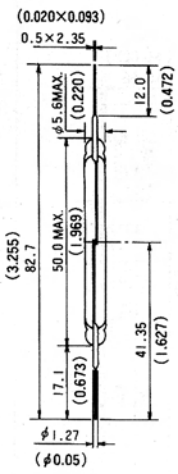
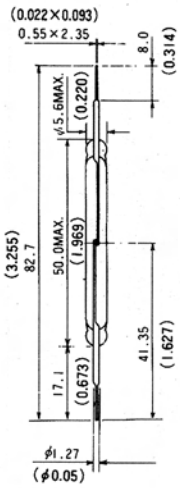
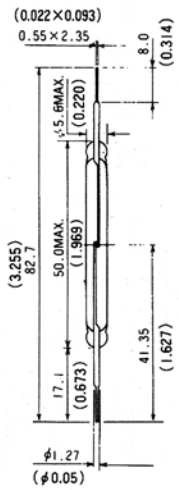
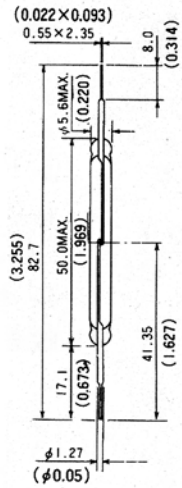
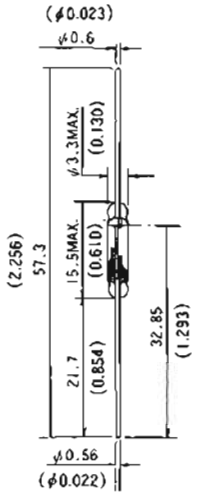
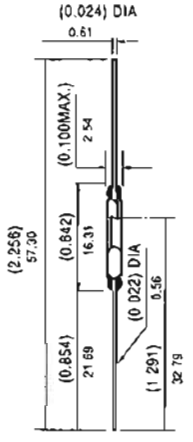
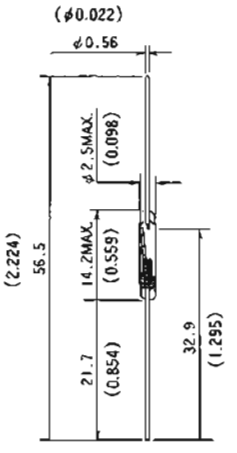
Dry Reed Switches

HYR4001	HYR4003	HYR5051	HYR5006	HYR5007	HYR5008
					
IA	IC	IA	IA	IA	IA
0	0	C	C	C	C
Rhodium	Rhodium	Ruthenium *3	Rhodium	Rhodium	Rhodium
15W	10W	15W	25W	25W	25W
250VDC	250VDC	250VDC	2,000VDC	3,500VDC	3,500VDC
1A	0.5A	3A	0.5A	0.5A	0.5A
60m Ω	75m Ω	60m Ω	60m Ω	60m Ω	60m Ω
30-120	30-80	40-110	50-150	120-200	200-250
13	15	13	13	20	50
400VDC	500VDC	500VDC	5,000VDC	10,000VDC	15,000VDC
0.8pF	3.0pF	0.8pF	0.8pF	0.8pF	0.8pF
10^8 Ω	10^8 Ω	10^9 Ω	10^{10} Ω	10^{10} Ω	10^{10} Ω
0.9kHz	1.1kHz	0.8kHz	0.8kHz	0.8kHz	0.8kHz
10^7 (24VDC,100mA) 7×10^6 (100VDC,100mA)	10^6 (24VDC,100mA)	10^7 (10VDC,100mA) 10^6 (100VDC,100mA)	10^7 (50mVDC,10mA) 5×10^5 (2,000VDC,10mA)	10^7 (50mVDC,10mA) 5×10^5 (2,000VDC,10mA)	10^7 (50mVDC,10mA) 5×10^5 (2,000VDC,10mA)
TC-1001	TC-1002				
General application	Single pole, double throw	General application	High breakdown voltage	High breakdown voltage	High breakdown voltage

Mercury Wetted Reed Switches

Part No.	HYR9001	HYR9001-1 HYR9001-9	HYR9004-1/ HYR9004-9	HYR9005-1	HYR9005-9
Dimensions Unit : mm(inch)					
Contact Form	1A		1A	1A	
Contact Position *1	O		O	O	
Contact Material	Mercury Wetted		Mercury Wetted	Mercury Wetted	
Max. Contact Rating	50W		35W	50W	
Max. Switching Voltage	500VDC	1,500VDC	1,000VDC	1,000VDC	
Max. Switching Current	2A		1.0A	1A	
Max. Initial Contact Resistance	50m Ω		0.050 Ω	60m Ω	
Pull in Valve (AT)	40-70		35-70	40-60	
Min. Drop out Valve (AT)	15		14	15	
Min. Breakdown Voltage *2	1,000VDC	2,000VDC	1,500VDC	1,500VDC	
Max. Contact Capacitance	0.3pF		0.3pF	0.4pF	
Min. Insulation Resistance	10^{10} Ω	10^{13} Ω	10^{10} Ω	10^{10} Ω	10^{13} Ω
Typ. Resonant Frequency	0.3kHz		300kHz	0.3kHz	
Electrical Life (Resistive loads)	10^9 (10mVDC, 10μA) 5×10^6 (50VDC,1A)		$1{,}000 \times 10^6$ (10mV @ 10μA) 5×10^6 (50VDC @ 1.0A)	10^9 (10mVDC,10μA) 5×10^7 (200VDC, 0.1A)	
Test Coil	TC-0502				
Features	General application	High breakdown voltage High insulation resistance	General application	High insulation resistance	High speed High speed, High insulation resistance

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