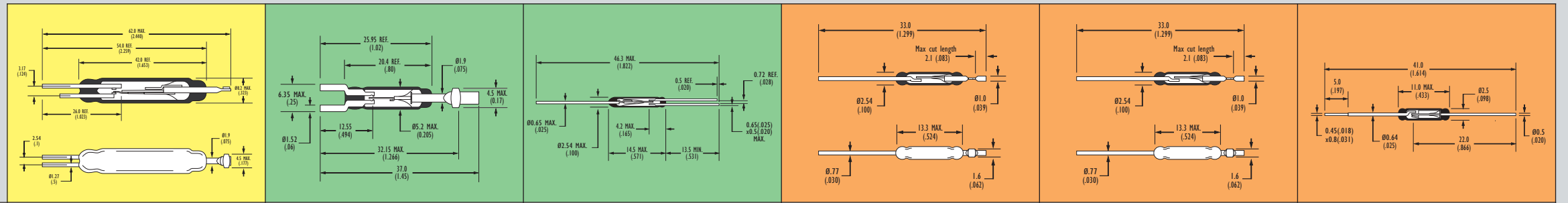


# MERCURY WETTED REED SWITCHES



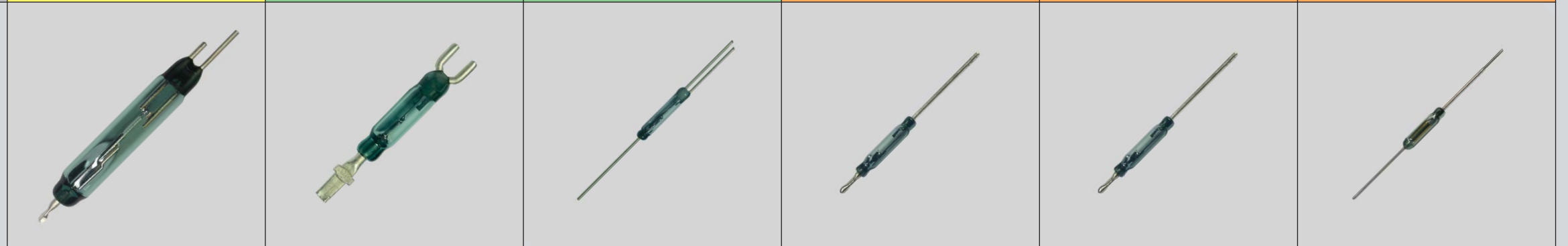
	Type				HG	HGW	HGZ	MH4	MH4 500083	MH5
	Contact Form				D - Make before break - Contact	C - Break before make- Contact <sup>(*)</sup>	C - Break before make - Contact	A - Make Contact	A - Make Contact	A - Make Contact
CONTACT RATINGS	Switching Voltage	DC / Peak AC Resistive	Volts	Max.	500	500	500	500 <sup>(*)</sup>	1500	500 <sup>(*)</sup>
	Switching Current	DC / Peak AC Resistive	Amps	Max.	5	2	2	2	2	2
	Carry Current (24 h)	DC / Peak AC Resistive	Amps	Max.	10	5	3	3	3	2
	Contact Rating	DC / Peak AC Resistive	Watts	Max.	250	100	50	50	50	50
	Operating Frequency		Hz	Max.	80	200	100	200	200	300
	Life expectancy	1.0V, 10mA	x10 <sup>4</sup> Ops	Min.	1000	1000	1000	1000	1000	200
		50V, 1A	x10 <sup>4</sup> Ops	Min.	5	3	2	2	5	1
		500V, 100A	x10 <sup>4</sup> Ops	Min.	50	50	50	50	50	5
		48V, 100A	x10 <sup>4</sup> Ops	Min.						50
	Operate AT Range		AT	Min - Max.	120 - 180	N.A.	35 - 60	20 - 35	20 - 40	25 - 60
Release AT Range		AT	Min.	30	N.A.	10	8	8	12	
Delta		AT	Min - Max.	N.A.	30 - 60	N.A.	N.A.	N.A.	N.A.	
Insulation Resistance	500V, 25°C 40% RH	Ohms	Min.	10 <sup>7</sup>	10 <sup>9</sup>	10 <sup>9</sup>	10 <sup>10</sup>	10 <sup>13</sup>	10 <sup>10</sup>	
Capacitance	Across Open Contacts	pF		2	0.7	0.5	0.3	0.3	0.3	
Dielectric Strength	Between Contacts	VAC	Min.	2500 <sup>(*)</sup>	2000	1000	1500	2000 VDC	1500	
Operate Time	1.5 times Operate at 20Hz Sq. Wave 50% DC	msec	Max.	7	1.5	3	2	2	0.85 Typ. - 1.2 Max.	
Release Time	Zener-Diode Suppresion	msec	Max.	6	1.5	2	1.5	1.5	0.8 Typ - 1 Max.	
Transfer Time		usec	Min - Max.	N.A.	50 - 300	50 - 700	N.A.	N.A.	N.A.	
Bridging Time		usec	Min - Max.	150 - 900	N.A.	N.A.	N.A.	N.A.	N.A.	
Drain Time		sec	Max.	15	5	5	5	5	N.A.	
Static Contact Resistance	50mV, 10mA	mOhms	Max.	30	30	25	30	30	30	
Contact Material				Hg	Hg	Hg	Hg	Hg	Hg	
Hg Content		gr		3	0.32	0.072	0.040	0.040	0.010	
ENVIRONMENTAL RATINGS	Storage Temperature		°C	-40 +125	-40 +125	-40 +125	-40 +125	-40 +125	-40 +125	
	Operating Temperature		°C	-38 +125	-38 +125	-38 +125	-38 +125	-38 +125	-38 +125	
	Soldering Temperature	<10 sec st 260°C	°C	+260	+260	+260	+260	+260	+260	
	Vibration Resistance (Survival)	10Hz - 500Hz	g	Max.	10	10	10	10	10	20
	Shock Resistance (Survival)	11 ± 1ms, 1/2 Sine Wave	g	Max.	30	30	30	30	30	50
	Weight		gr		3.8	1.16	0.28	0.24	0.24	0.2

## Pb - FREE

Plating and Glass are not containing any lead.

### Notes:

- <sup>(\*)</sup> 8000 VDC option
- <sup>(\*)</sup> Form D - Make before break - Contact, also available
- <sup>(\*)</sup> 1000 VDC (5W) - It might switch 1000 V but limited to 5 watts.



## TESTCOIL MEASUREMENT

Type	Measure Test Coil	Gap Position in Coil	Operate Value Tolerance
HG	EN119000-19 with resistor in serie to 1000 Ohms.	N.A.	± 3 AT.
HGW	EN119000-15, test system 2.	N.A.	± 2 AT.
HGZ	EN119000-09	3.5mm above center	± 3 AT.
MH4	NARM I or EN119000-03	2mm below center	± 2 AT.
MH4 500083	NARM I or EN119000-03	2mm below center	± 2 AT.
MH5	EN119000-09	Centered	± 2 AT.

## ORDERING INFORMATION

- PART NUMBER HG 07 120 180
- Switch Type
  - Insulation Resistance
  - Operate AT - Range
  - Max. Operate AT.
  - Min. Operate AT.

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