Mercury Wetted Reed Relays
Datasheet DIL-16 1 & 2 form C

HGZM Relays - 3880.7821 / 7831

Features

* DIL-16 hermetically sealed mercury wetted reed relays
* High power capability, 50W switching, up to 500 V
* Low and stable contact resistance during life, no bounce
* High reliability and long operation al life at low levels
* Sealed construction for automatic board cleaning processes
* Vertical mounting required

Technical data (@ 25 °C)

Coil parameters

Type		Coil resistance (+/- 10%)	Operate voltage	Release voltage	Nominal voltage	Nominal input power	Max. voltage
3880.7821.051	HGZM 1C05	44 Ω	3.75 V	0.5 V	5 V	568 mW	7 V
3880.7821.121	HGZM 1C12	280 Ω	9 V	1 V	12 V	514 mW	17 V
3880.7821.241	HGZM 1C24	1050 Ω	18 V	2 V	24 V	549 mW	33 V
3880.7821.481	HGZM 1C48	4100 Ω	36 V	4 V	48 V	562 mW	65 V
3880.7831.051	HGZM 2C05	44 Ω	3.75 V	0.5 V	5 V	568 mW	7 V
3880.7831.121	HGZM 2C12	280 Ω	9 V	1 V	12 V	514 mW	17 V
3880.7831.241	HGZM 2C24	1050 Ω	18 V	2 V	24 V	549 mW	33 V
3880.7831.481	HGZM 2C48	4100 Ω	36 V	4 V	48 V	562 mW	65 V

Output Data/Contact Data	Conditions		unit
Max. switching power	Max DC/PeakAC Resistive	50	W
Max. switching voltage	Max DC/PeakAC Resistive	500	V
Max. switching current	Max DC/PeakAC Resistive	2	A
Max. carry current	Max DC/PeakAC Resistive	3	A
Max. contact resistance	50 mV, 10 mA	150	mOhm
Life expectancy	Signal level 1 V, 10 mA 48V, 100 mA 50V, 1A 500V, 100mA	 1000 x 10^6 200 x 10^6 2 x 10^6 50 x 10^6	Ops. Min.
Contact material		Hg	
Hg content		72	mg

Comus International, Belgium : + 32 (0)12 390 400, France : + 33 (0) 1 43 96 86 10, USA : + 1 973 777 6900 - Assemtech, UK : +44 (0) 1255 862 236

Mercury Wetted Reed Relays
Datasheet DIL-16 1 & 2 form C

HGZM Relays - 3880.7821 / 7831

Technical data (@ 25 °C)

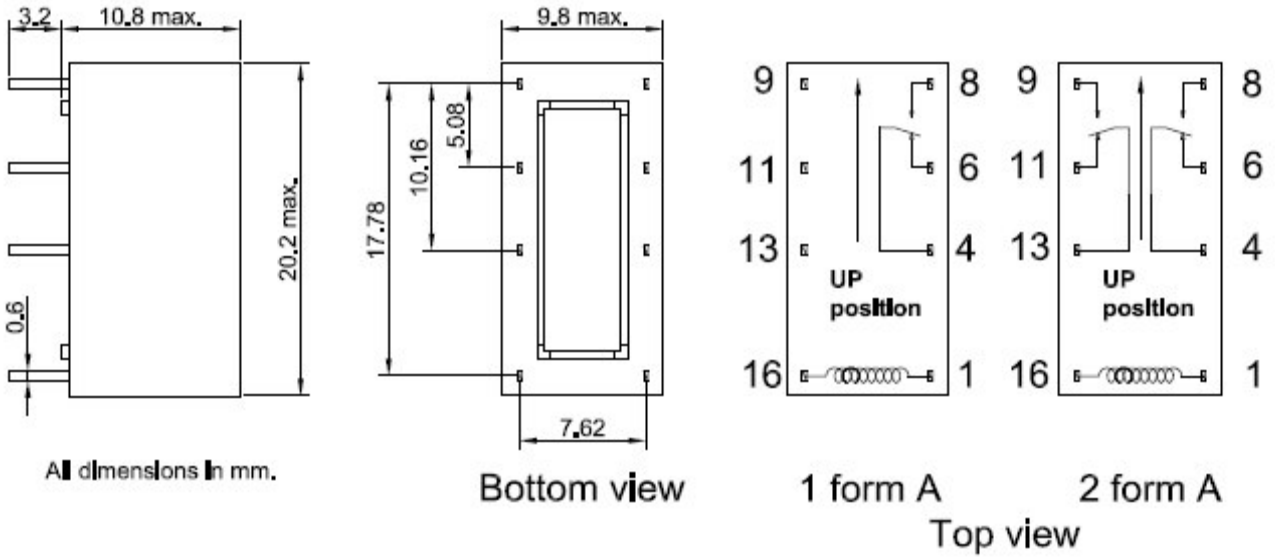
Relay parameters	Conditions	MIN	TYP	MAX	UNITS
Insulation resistance	between all isolated pins at 500 V, 25°C, 40% RH	10^8	10^{11}		Ohms
Capacitance	Across open contacts		1.0		pF
	Open contact to coil		1.2		pF
	Closed contact to coil		3.0		pF
Dielectric strength	Between contacts	1400			VDC / peakAC
	Contacts to coil	1000			VAC
Operate time	At nominal coil voltage, 10 Hz Sq.W.		2.5	5.0	ms
Release time	Zener-diode suppression		1.70	5.0	ms

Environmental Ratings

Operating temperature		-38		75	°C
Storage temperature		-40		105	°C
Shock resistance	1/2 sine wave duration 11 ms			30	g
Vibration resistance	10 to 500 Hz			10	g
Weight			3.4		grams
Humidity test	40°C, 93% RH, 21 days				
Terminal solderability	IEC 68-2-20 test Ta, method 1, solderbath temp 235°C, immersion time 2 sec				
Resistance to solder heat	IEC 68-2-20 test Tb, method 1A, solderbath temp 260°C, immersion time 10 sec				

Comus International, Belgium : + 32 (0)12 390 400, France : + 33 (0) 1 43 96 86 10, USA : + 1 973 777 6900 - Assemtech, UK : +44 (0) 1255 862 236

Dimensions & Pin layout



Options and order information / Equivalent partnumbers

Series	Contact form	Nominal Coil Voltage	Options
HGZM	1C 2C	05 12 24 48	

Series		Nominal Coil Voltage	Options
3880.7821.	(HGZM 1Cxx)	05 12	1 (standard, no options)
3880.7831.	(HGZM 2Cxx)	24 48	

Comus International, Belgium : + 32 (0)12 390 400, France : + 33 (0) 1 43 96 86 10, USA : + 1 973 777 6900 - Assemtech, UK : +44 (0) 1255 862 236