



MT series

10 Amp General Purpose Relay

File E38891

File LR 59548

NR 6182



Features

- DPDT or 3PDT contact arrangements.
- 4 amp bifurcated contact available.
- AC and DC coils.
- Protection Diode available (DC coils).
- Mechanical indicator - all models.
- Electrical indicator available.
- Test actuator with front operated finger protected push to test button and integral locking test tab.

Contact Data @ 25°C

Arrangements: 2 Form C (DPDT),
3 Form C (3PDT).

Material: 10 amp: Silver-nickel 90/10 with or without gold plating.
4 amp: Silver-nickel 90/10 with gold plating.

Expected Mechanical Life: 20 million operations minimum.

Ratings:

UL/CSA NO/NC @ 25°C:

- 4 amp (Bifurcated) 250VAC Resistive 30,000 ops.
- 10 amp 240VAC Resistive 30,000 ops.
- 1/2 HP 240VAC 30,000 ops.
- 1/4 HP 120VAC 30,000 ops.
- B300 Pilot duty 30,000 ops.

VDE @ 35°C:

- 10 amp 250VAC Resistive 100,000 ops., DC Coil, AC Coil N/O, 20,000 ops., AC Coil N/C.

Initial Dielectric Strength

- Between Open Contacts: 1,500VAC.
- Between Coil and Contacts: 2,500VAC.
- Between Poles: 2,500VAC.
- Creepage/Clearance Coil-Contact: 4/2.8mm.

Coil Data @ 25°C

Nominal Coil Power: 1.2W, 2.3VA.

DC Data

Nominal Voltage VDC	DC Resistance in Ohms ±10%	Must Operate Voltage VDC	Must Release Voltage VDC	Nominal Coil Current (mA)
06	32	4.5	0.6	187.5
12	110	9	1.2	109.1
24	475	18	2.4	50.5
48	2,000	36	4.8	24.0
60	2,850	45	6.0	21.1
110	10,000	82.5	11.5	11.0
220	40,000	165	22.0	5.5

AC Data

Nominal Voltage VAC	DC Resistance in Ohms ±10%	Must Operate Voltage VAC	Must Release Voltage VAC	Nominal Coil Current (mA)
06	5.3	4.8	2.4	381.7
12	24	9.6	4.8	182.5
24	86	19.2	9.6	94.2
48	345	38.4	19.2	47.5
60	544	48	24	37.8
115	2,000	92	46	20.6
230	8,300	184	92	10.1

Operate Data

- Must Operate Voltage:** See Coil Data table.
- Operate Time:** 12 ms typical, at nom. voltage.
- Release Time:** 5 ms typical, at nom. voltage.
- Bounce Time:** 4 ms typical, at nom. voltage.
- Switching Rate:** 1,200 ops./hr. max. at rated load.

Environmental Data

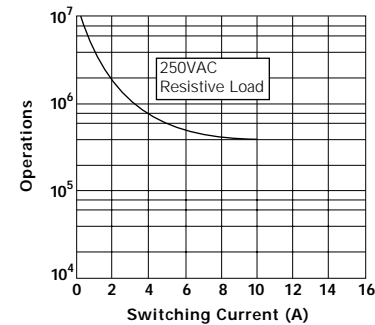
Temperature Range:

- Operating:** -45°C to +60°C DC coil.
-45°C to +50°C AC coil.

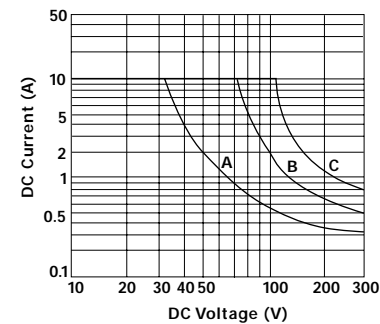
Vibration: 30 to 1,500 Hz. at 5g N/O, 2g N/C.

Shock: 50g N/O, 10g N/C.

Electrical Life

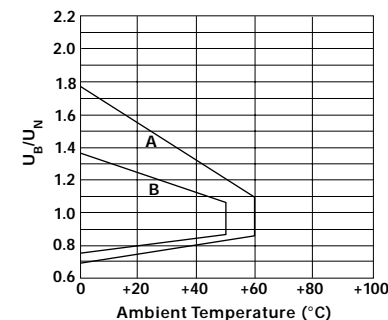


Max. DC Load Breaking Capacity



A: 1 contact.
B: 2 contacts in series.
C: 3 contacts in series.

Coil Operating Range



A: DC coil.
B: AC coil.

Ordering Information

Typical Part Number ►

MT
3
2
1
012
1. Basic Series:

MT = General purpose relay.

2. Contact Arrangement:

 2 = 2 Form C (DPDT) 8 pin
 3 = 3 Form C (3PDT) 11 pin

3. Contact Material:

 2 = Silver Nickel 90/10 with mechanical actuator.
 3 = Silver Nickel 90/10, gold plated, with mechanical actuator.
 B = 4 amp Silver Nickel 90/10 bifurcated contact with gold plating.

4. Test:

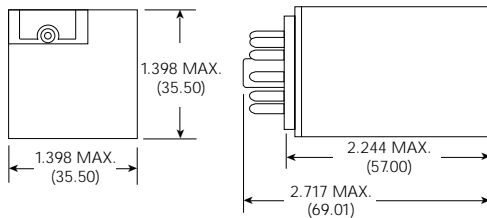
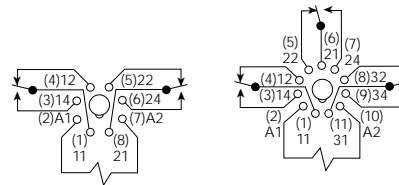
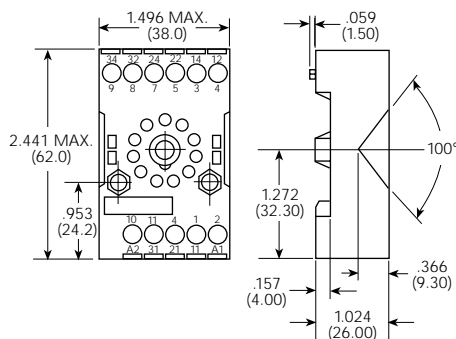
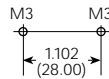
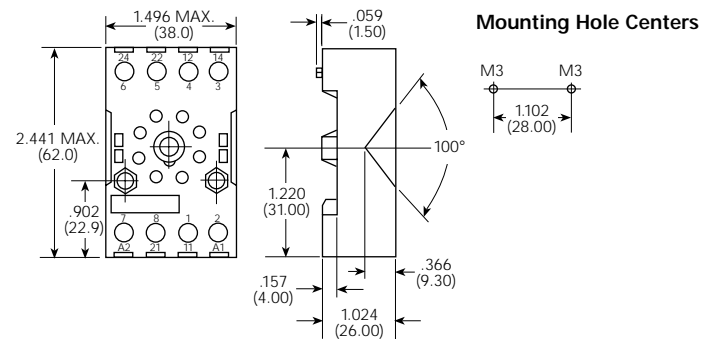
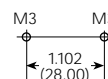
 1 = DC coil with test-button.
 3 = DC coil with test-button and LED.
 6 = AC coil with test-button.
 8 = AC coil with test-button and LED.

5. Coil Voltage:

Standard	With protection diode	Standard	With protection diode
006 = 6VDC	0A6 = 6VDC	006 = 6VAC	N/A
012 = 12VDC	0B2 = 12VDC	012 = 12VAC	N/A
024 = 24VDC	0C4 = 24VDC	024 = 24VAC	N/A
048 = 48VDC	0E8 = 48VDC	048 = 48VAC	N/A
060 = 60VDC	0G0 = 60VDC	060 = 60VAC	N/A
110 = 110VDC	1B0 = 110VDC	115 = 115VAC	N/A
220 = 220VDC	2C0 = 220VDC	230 = 230VAC	N/A

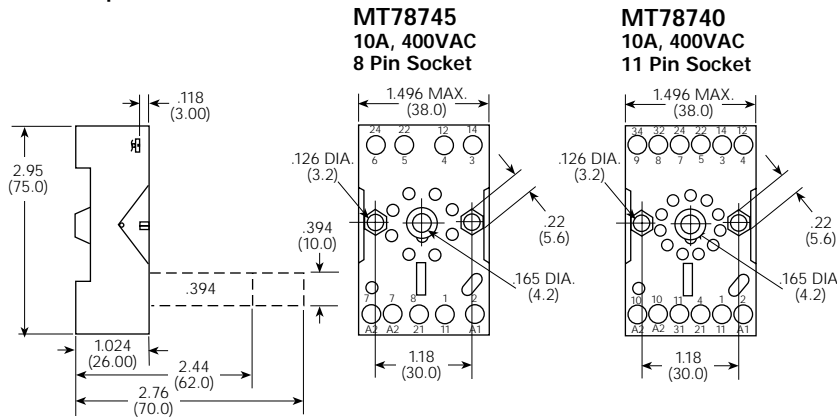
Stock Items

MT221012	MT226024	MT226230	MT321024	MT326115
MT221024	MT226115	MT321012	MT326024	MT326230

Outline Dimensions

Wiring Diagrams (Bottom Views)

MT Sockets and Accessories
MR78750
 10A, 400VAC
 11 Pin Socket

Mounting Hole Centers

Hold-Down Spring MR28800
MR78755
 10A, 400VAC
 8 Pin Socket

Mounting Hole Centers

Hold-Down Spring MR28800

MT Sockets and Accessories (continued)

Module-capable Sockets



Socket Selection Table

Stock items are boldfaced.

Socket	Socket Type and Termination	Hold-Down Spring
MR78750	11-pin, DIN Rail w/ Screw Terminals	MR28800
MR78755	8-pin, DIN Rail w/ Screw Terminals	MR28800
MT78740	11-pin, module-capable, DIN Rail w/ Screw Terminals	MR28800
MT78745	8-pin, module-capable, DIN Rail w/ Screw Terminals	MR28800

Timing Module Selection Table

Stock items are boldfaced.

Module	Type
MTMZ0W00	Delay ON timing module
MTMF0W00	Multifunction timing module

LED and Protection Module Selection Table

Stock items are boldfaced.

Module	Type
MTMT00A0	Protection diode 1N4007
MTMU0524	RC-network 24 – 115 VAC
MTMU0730	RC-network 230 VAC
MTML0024	LED 24 VAC / VDC
MTML0615	LED 115 VAC

Timing Module Functional Data

Nominal Voltage: 24 – 240 VAC / VDC
Frequency: 48 – 63 Hz.
Precision of Time Setting: ± 0.5%.
Readiness for Repetition: ≤ 0.5% or 5 ms.
Influence of Temperature: ≤ 0.1% /°C.
Time Range Switchable: 0.05 s – 240 h in 8 ranges.
Ambient Temperature: -25°C to +55°C.

Timing Function Diagrams

Delay ON



Delay OFF



Single shot leading edge



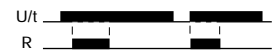
Single shot trailing edge



Single shot



Delay ON triggered by signal contact



Flasher starting with pause



Flasher starting with pulse

