



MT series

10 Amp General Purpose Relay

UL File E214025

NR 6182

CE

Users should thoroughly review the technical data before selecting a product part number. It is recommended that users also seek out the pertinent approvals files of the agencies/laboratories and review them to ensure the product meets the requirements for a given application.

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

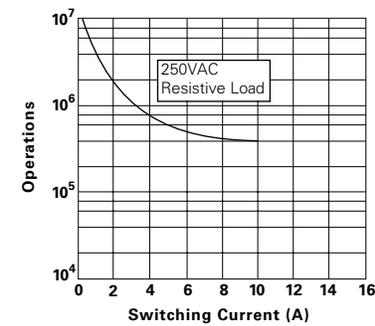
Temperature Range:

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

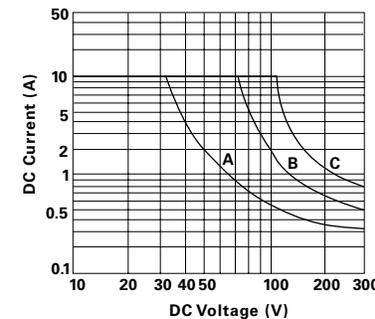
Vibration: 30 to 1,500 Hz. at 5g N/O, 2g N/C.

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

Electrical Life

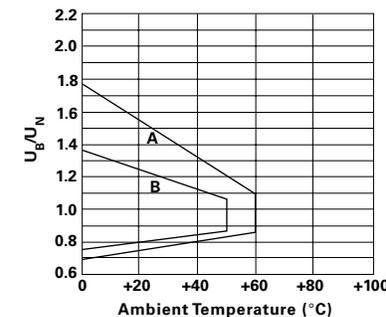


Max. DC Load Breaking Capacity



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.

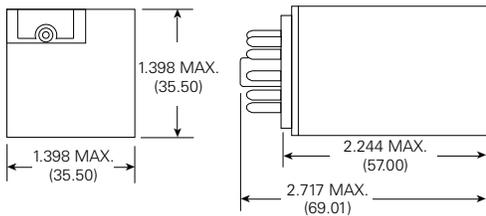
5. Coil Voltage:

Standard		With protection diode	
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

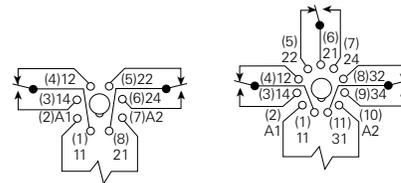
Our authorized distributors are more likely to stock the following items for immediate delivery.

MT221012 MT226024 MT226230 MT321024 MT326115
MT221024 MT226115 MT321012 MT326024 MT326230

Outline Dimensions

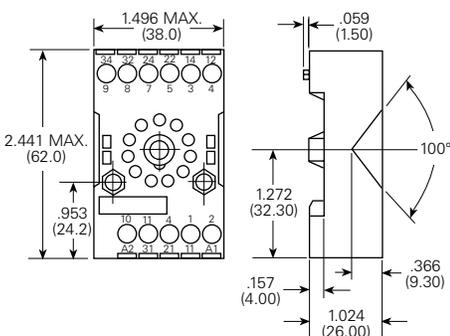


Wiring Diagrams (Bottom Views)

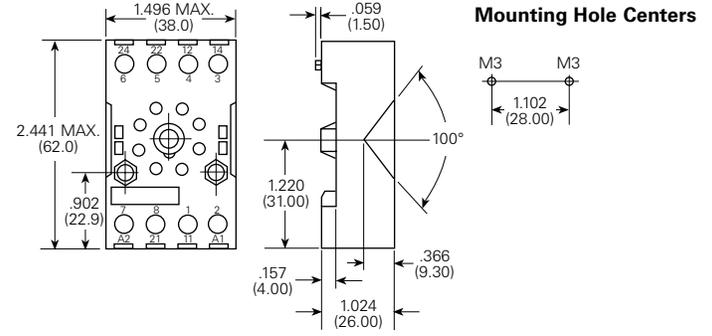


MT Sockets and Accessories

MT78750
10A, 400VAC
11 Pin Socket



MT78755
10A, 400VAC
8 Pin Socket



Hold-Down Spring MT28800

Hold-Down Spring MT28800

Dimensions are shown for reference purposes only.

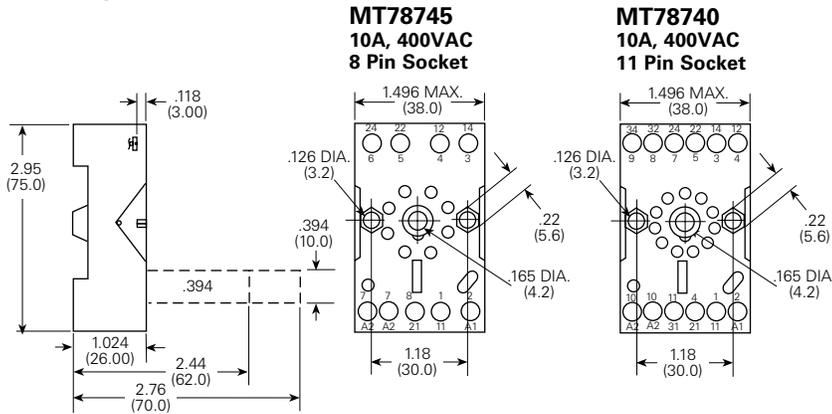
Dimensions are in inches or (millimeters) unless otherwise specified.

Specifications and availability subject to change.

www.tycoelectronics.com
Technical support:
Refer to inside back cover.

MT Sockets and Accessories (continued)

Module-capable Sockets



Socket Selection Table

Stock items are boldfaced.

Socket	Socket Type and Termination	Hold-Down Spring
MT78750	11-pin, DIN Rail w/ Screw Terminals	MT28800
MT78755	8-pin, DIN Rail w/ Screw Terminals	MT28800
MT78740	11-pin, module-capable, DIN Rail w/ Screw Terminals	MT28800
MT78745	8-pin, module-capable, DIN Rail w/ Screw Terminals	MT28800

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

