Littelfuse
Expertise Applied | Answers Delivered

MSM SERIES

Description

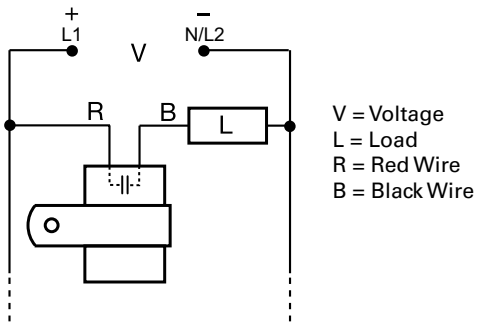
The MSM Series replaces bi-metal type timing with reliable solid-state circuitry. There are no moving parts to arc or wear. It is a cost effective solution for OEM designers. It is available for printed circuit board mounting or surface mounting with a removable bracket and wire leads. The MSM Series offers immediate reset on removal of power.

Operation (Delay-on-Make)

The time delay begins upon application of input voltage. The output is de-energized before and during the time delay. At the end of the time delay, the output energizes and remains energized until input voltage is removed.

Reset: Removing input voltage resets the time delay and output.

Wiring Diagram



V = Voltage
L = Load
R = Red Wire
B = Black Wire

Features & Benefits

FEATURES	BENEFITS
Analog circuitry	Repeat Accuracy + / - 5%, Factory calibration + / - 15%
Compact, low cost design	Allows flexiblility for OEM applications
Long life	No moving parts to arc or wear
PCB or wire harness	Offers design and installation flexibility
Immediate reset	Occurs on removal of power
Totally Encapsulated	Protects against shock, vibration and humidity

Ordering Information

MODEL	INPUT VOLTAGE	ADJUSTMENT	TIME DELAY	WIRE TYPE	WIRE LENGTH inches (mm)
MSM10.5W6	12VDC	Fixed	0.5s	Standard Lead	6.0 (152.4)
MSM10.7W6	12VDC	Fixed	0.7s	Standard Lead	6.0 (152.4)
MSM11W6	12VDC	Fixed	1s	Standard Lead	6.0 (152.4)
MSM110W6	12VDC	Fixed	10s	Standard Lead	6.0 (152.4)
MSM130W9	12VDC	Fixed	30s	Standard Lead	9.0 (228.6)
MSM190W6	12VDC	Fixed	90s	Standard Lead	6.0 (152.4)
MSM20.15W9	24VAC	Fixed	0.15s	Standard Lead	9.0 (228.6)
MSM210P3	24VAC	Fixed	10s	PC Mount	0.5 (12.7)
MSM25W9	24VAC	Fixed	5s	Standard Lead	9.0 (228.6)
MSM30.7W6	24VDC	Fixed	0.7s	Standard Lead	6.0 (152.4)
MSM42W6	120VAC	Fixed	2s	Standard Lead	6.0 (152.4)
MSM43W6	120VAC	Fixed	3s	Standard Lead	6.0 (152.4)
MSM420W6	120VAC	Fixed	20s	Standard Lead	6.0 (152.4)
MSM450W6	120VAC	Fixed	50s	Standard Lead	6.0 (152.4)

If you don't find the part you need, call us for a custom product 800-843-8848

Littelfuse
Expertise Applied | Answers Delivered

MSM SERIES

Specifications

Time Delay

Type	Analog Circuitry
Range	0.05 - 180s fixed
Repeat Accuracy	±5%
Tolerance (Factory Calibration)	±15%
Recycle Time	≤ 75ms
Time Delay vs Temp. & Voltage	±15%

Input

Voltage	12 or 24VDC; 24, 120, or 230VAC
Tolerance	±10%
AC Line Frequency	50/60 Hz

Output

Type	Solid State
Form	NO, open during timing
Maximum Load Current	0.5A steady state 25°C; 0.25A steady state 60°C
Minimum Holding Current	40mA
Voltage Drop	≅ 2.5V @ 0.5A

Protection

Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000V RMS input to mounting surface
Insulation Resistance	≥ 100 MΩ
Polarity	DC units are reverse polarity protected

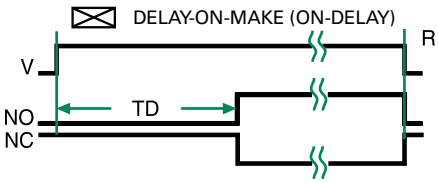
Mechanical

Mounting	**A.)** PC mount 14 AWG (2.087mm²) wires (Can be inserted in AMP Miniature Spring Socket #645980-1) **B.)** Stranded 18 AWG wire leads (0.933 mm²) with mounting bracket

Environmental

Operation/Storage Temperature	-20° to 60°C / -30° to 85°C
Humidity	95% relative, non-condensing
Weight	P: ≅ 1.1 oz (31.2 g) W: ≅ 1.2 oz (34 g)

Function Diagram



V = Voltage
NO = Normally Open Contact
NC = Normally Closed Contact
TD = Time Delay
R = Reset
= Undefined Time