



# Thermostats and Controls

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## THERMOSTATS

### L TRON

### T LL N VOLT



T LO NO	T	T	T	T PP
<b>ction</b>	Triac: Silent Operation	Electronic Switch	Triac: Silent Operation	Microprocessor
<b>Type</b>	12.5A Resistive 2 wire SPST	15 A Resistive 4 wire DPST	16.7A Resistive 2 wire SPST	16.7 A Resistive 4 wire DPST
<b>Watt Rating</b>	Minimum: 2 amp load	No minimum load	Minimum: 2 amp load	No minimum load
<b>V</b>	1500 watts	n/a	2000 watts	n/a
<b>V</b>	n/a	n/a	n/a	3000 watts
<b>V</b>	3000 watts	3600 watts	4000 watts	4000 watts
<b>V</b>	n/a	n/a	n/a	n/a
<b>Pilot uty</b>	No	No	No	No
<b>Range (° )</b>	40°F to 85°F	40°F to 85°F	40°F to 85°F	40°F to 85°F
<b>ifferential</b>	Accuracy: Within +/- 0.27°F	Accuracy: Within 1°F of setpoint	Accuracy: Within +/- 0.27°F	Accuracy: Within 1°F of setpoint
<b>eatures</b>	Digital, non-programmable 12.5amp model delivers exceptional accuracy. Ideal for radiant ceiling panels, and baseboard. Not for fan-forced heaters.	Digital, non-programmable model delivers exceptional accuracy. Ideal for radiant ceiling panels, and baseboard. Can be used for fan-forced heaters..	Digital, programmable high capacity model delivers exceptional accuracy. Ideal for radiant ceiling panels, and baseboard. Can be used for fan-forced heaters and resistive loads.	Digital, programmable model delivers exceptional accuracy. Ideal for radiant ceiling panels, and baseboard. Can be used for fan-forced heaters.

## THERMOSTATS

### L TRON

### T L LOW VOLT



T LO NO	T	T	T	LT
<b>ction</b>	Electronic Switch	Electronic Switch	Electronic Switch	Microprocessor
<b>Type</b>	24 volt .015 -1.0A @ 30V 2-wire	24 volt .015 -1.0A @ 30V 2-wire	24 volt .015 -1.0A @ 30V 5-wire	Wall thermistor
<b>Watt Rating</b>				
<b>V</b>	n/a	n/a	n/a	22A
<b>V</b>	n/a	n/a	n/a	22A
<b>V</b>	n/a	n/a	n/a	22A
<b>V</b>	n/a	n/a	n/a	19A
<b>Pilot uty</b>	24VAC	24VAC	24VAC	n/a
<b>Range (° )</b>	40°F to 90°F	40°F to 90°F	40°F to 90°F	40°F to 90°F
<b>ifferential</b>	Accuracy: Within 1°F of setpoint	Accuracy: Within 1°F of setpoint	Accuracy: Within 1°F of set	Accuracy Within 1°F of setpoint
<b>eatures</b>	Digital, non-programmable 24 volt "Round" model delivers exceptional accuracy. (Heat Only)	Digital, non-programmable 24 volt "Round" model delivers exceptional accuracy. (Heat and Cool)	Digital, 24volt programmable 2 stage 5-7 wire heat and cool thermostat. One touch temperature control with exceptional accuracy. Ideal for plenum heaters, and HVAC systems.	Proportional and Integral non-programmable electronic room sensor thermostat with set point capability, providing exceptional accuracy. Transmits actual temperature to a LTR relay.

# THERMOSTATS

## L N VOLT



T	LO	NO	MS	M	M	W	M	W	M	TPW	M	TPW	M	W	M	W
ction			Snap Action			Snap Action			Snap Action			Snap Action				
Type	SPST		DPST		SPST		DPST		SPST		DPST		SPST		DPST	
mp Rating	Model MD26 has Positive OFF				Model M602W has Positive OFF				Model M602TPW has Positive OFF				Model M612W has Positive OFF			
V	22A				22A				22A				22A			
V	22A				22A				22A				22A			
V	22A				22A				22A				22A			
V	18A				18A				18A				18A			
Pilot uty	No				Yes 125VA				Yes 125VA				Yes 125VA			
Range (° )	50°F to 80°F				45°F to 75°F				45°F to 75°F				45°F to 75°F			
ifferential	+/- 5°F				+/- 4°F				+/- 4°F				+/- 2 1/2°F			
eatures	These economy thermostats are the snap action type that are used in apartment construction. Good thermostat for its value. Ideal for radiant cove heaters and baseboard.				These bi-metal snap action thermostats are sensitive. Large knob allow for easy adjustment.				Same as M601W and M602W except the cover mounting cover offer tamper proof feature.				Built-in heat anticipator assures closer control of room temperature. These snap action thermostats are more sensitive that			

# THERMOSTATS

## L N VOLT



	T	LO	NO	M	MTP	M	S	T	T	WR	WR
ction	Modulation (2 stage)		Simultaneous switching (double ckt)		Snap Action with Heat Anticipator		Creep (Hydraulic) Action				
Type	DPST		SPST		DPST		SPST		DPST		
Watt Rating											
V	22A		22A		22A		22A		22A		
V	22A		22A		22A		22A		22A		
V	22A		22A		22A		22A		22A		
V	18A		18A		18A		18A		na		
Pilot uty	Yes 125VA		Yes 125VA		Yes 125VA		No				
Range (° )	50°F to 80°F		50°F to 80°F		50°F to 90°F		40°F to 85°F				
ifferential	Accuracy: Within 3°F of setpoint		Accuracy: Within 3°F of setpoint		+/- 2 1/2°F		+/- 2°F				
eatures	One thermostat controls two separate heating circuits and reduces input during light load periods. Second stage activates when temperature drops to approx. 1 1/2°F below the first stage turn-ON temperature.		Simultaneous control of two heating loads. Used where the total load slightly exceeds capacity of a single switch, where two thermostats are impractical. Both switches are calibrated to operate at approx. the same temperature.		Line voltage thermostat with everything; Performance, reliability, durability, and a large knob. Built-in heat anticipation assures close temperature regulation. Large knob for easy rotation.		Extra-sensitive element in control knob senses radiant heat as well as air temperature for ultimate control. May cause slight radio or television interference in outlying fringe areas.				

# T L T R MOST TS N ONTROLS

T R TYP	S R S S O R	O S O R	L R W LL T R	SM LL W LL T R	SM LL W LL T R	R ST R W LL T R	TO SP T R
heater Series	Series QM		W W L	W S W S	R S &	R Q	QTS
Refer to the Notes Section where specified	See Note 1		See Note 2	See Note 3	See Note 4		See Note 6
<b>Thermostats below are electronic with digital display</b>							
TH110DPP	Yes	Yes	The electronic	No	See model	See model	Yes
TH300024	Yes	Yes	thermostats are not	No	selection	selection	No
TH36004	Yes	Yes	recommended	No	chart.	chart.	Yes
TH400024	Yes	Yes	for this heater	No			Yes
TH522D1003	No	No		No			No
<b>Thermostats listed below are of mechanical type and want to control temperature setting manually</b>							
MS26	Yes	Yes	See model	No	See model	See model	Yes
MD26	Yes	Yes	selection chart for	No	selection	selection	Yes
M601W	Yes	Yes	the recommended	Yes	chart.	chart.	Yes
M601TPW	Yes	Yes	thermostat	Yes			Yes
M602W	Yes	Yes		No			Yes
M602TPW	Yes	Yes		No			Yes
M611W	Yes	Yes		No			Yes
M612W	Yes	Yes		No			Yes
M600S	These stats are used when there are two elements to control. Two-stage operation						
M600MTP	and modulating type. Not normally used for above products.						
T100	Yes	Yes	See model	Yes	See model	See model	Yes
T200	Yes	Yes	selection chart for	No	selection	selection	Yes
WR651	Yes	Yes	the recommended	No	chart.	chart.	Yes
WR661	Yes	Yes	thermostat	No			Yes
<b>Thermostats below are more commercial industrial and not normally used on residential applications</b>							
WT11A	No	Yes	See model	No	No	No	No
WT12A	No	Yes	selection chart for	No	No	No	No
WR80	Yes	Yes	the recommended	No	No	No	No
WR80EP	No	No	thermostat	No	No	No	No
<b>Thermostats below are low voltage ( to volts) See note # below</b>							
T8775A1009	Yes	Yes	No	No	No	No	No
T8775C1005	Yes	Yes	No	No	No	No	No
<b>Electronic transformer relays with built in transformer</b>							
LTR1120	H						
LTR208240							
LTR1277							
LTR2240							
LT186F01	Yes	Yes	Yes	Yes		Yes	Yes

† For infrared type heaters, controls may be different for the type of element used. Contact Technical Services for recommendation.

Note 1: Electronic thermostats have amperage minimums and each model has different voltage requirements, please check catalog thermostat specifications.

Note 2: AWH, CWH, LFK Series models require the removal of the internal thermostat and wire wall thermostat in its place for proper fan operation. See THERMOSTAT MODEL SELECTION (page 6) for specific thermostat.

Note 3: CWHDSAG and CWHDS Series models require the removal of the internal thermostat from unit. Wire wall thermostat for proper fan operation. See THERMOSTAT MODEL SELECTION (page 6) for specific thermostats.

Note 4: CRA, SED, 1235, and 2400 Series models require the removal of the internal thermostat from unit. Wire wall thermostat for proper fan operation. See THERMOSTAT MODEL SELECTION (page 6) for specific thermostats.

Note 5: Low voltage thermostats operate in conjunction with low voltage control systems using relays. Compatible with all standard 24V two wire thermostats.

Note 6: The 1100 watt units can use either single pole or double stats. The higher wattage, 1500watt, must use a double pole stat. (3 conductors from stat to heater) See website for further details.

Note 7: CDF and EFF Series models require different thermostats based on internal wiring. Wire wall thermostat for proper fan operation. See THERMOSTAT MODEL SELECTION (page 6) for specific thermostats. Can not use digital thermostat with this unit.

Note 8: Due to the complexity of wiring variations for remote wall thermostats with these products, we recommend that you contact Technical Services for assistance.

Note 9: Remove internal thermostat and wire wall thermostat in its place for proper fan operation.

Note 10: Thermostat wire to the two white wires on the heater.

Note 11: Wire wall thermostats as directed in the Installation Manual for proper fan operation.

## Technical Services contact information

Phone: 800-452-4328

email: meptechnsupport@marleymep.com

L N T R	N T UN T T R	UN T T R	PL NUM T R	LUM NUM N ST L ONV TORS	OV R NT R	P NT	RP RS N R R T RS	N USTR L R NT
	MU U	U	MSP	II Series	R	P	RP & RS	M N and L

Q

See note 7

See note 8

See note 8

### Thermostats below are electronic with digital display

See model selection chart.	Contact Tech Services for assistance	Yes	No	Contact Tech Services for assistance	Yes	Yes	†	†
		No	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		No	Yes		No	No	†	†

### Thermostats listed below are of mechanical type and want to control temperature setting manually

See model selection chart.	Contact Tech Services for assistance	No	No	Contact Tech Services for assistance	Yes	Yes	†	†
		No	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†

See model selection chart.	Contact Tech Services for assistance	Yes	No	Contact Tech Services for assistance	Yes	Yes	†	†
		Yes	No		Yes	Yes	†	†
		No	No		Yes	Yes	†	†
		No	No		Yes	Yes	†	†

### Thermostats below are more commercial industrial and not normally used on residential applications

Yes	Contact Tech Services for assistance	Yes	No	Contact Tech Services for assistance	No	Yes	†	†
No		Yes	No		No	Yes	†	†
Yes		Yes	No		Yes	Yes	†	†
No		No	No		No	No	†	†

### Thermostats below are low voltage ( to volts) See note # below

No	No	Yes	No	Yes	Yes	Yes	†	†
No	No	Yes	Yes	Yes	Yes	Yes	†	†

### Electronic transformer relays with built in transformer

Yes	Yes	Yes	No	Yes	Yes	Yes	†	†
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# T R MOST T MO L S L T ON

From Notes 2, 3, 4 and 7 (see page 4)

T R MO L	W LL T R MOST T	T R MO L	W LL T R MOST T
FRC1512	M601W	VFK151	M602W
FRC3180	M601W	VFK204	M602W
FRC4020	M601W	VFK304	M602W
FRC4024	M601W	VFK404	M602W
FRC4027	M601W	VFK484	M602W
FRC3027	M601W	<b>NOT</b> : See note 10, pg. 4.	
FRC4820	M601W	SED1012C	TH400024, TH300024, M601W, M611W, T100, WR651
FRC4824	M601W	SED1024C	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
FRC4827	M601W	SED1512	TH400024, TH300024, M601W, M611W, T100, WR651
FRC40203	NA	SED2024	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
FRC40243	NA	ECP1024	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
<b>NOT</b> : See note 10, pg. 4.		ECP1524	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
SRA1012DSAG	M601W	CRA1512IF	TH400024, M601W, M611W, T100, WR651
SRA1512DSAG	M601W	CRA2028IF	M602W, M612W, T200, WR661
SRA1812DSAG	M601W	CRA2024IF	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
SRA2024DSAG	M601W	CRA2224IF	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
SRA2027DSAG	M601W	CRA1512T2	TH400024, M601W, M611W, T100, WR651
SRA1527DSAG	M601W	CRA2024T2	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
SRA2020DSAG	M601W	CRA2224T2	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
<b>NOT</b> : See note 10, pg. 4.		1235	TH400024, M601W, M611W, T100, WR651
SRA1012DS	M601W	1235P	TH400024, M601W, M611W, T100, WR651
SRA1512DS	M601W	2435	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
SRA1812DS	M601W	2435P	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661
SRA2024DS	M601W	FFCH548	MS26, M601W
SRA2027DS	M601W	FFCH542	TH400024, MS26, M601W
SRA1527DS	M601W	FFCH547	MS26, M601W
SRA2020DS	M601W	FFCH558	MS26, M601W
<b>NOT</b> : See note 10, pg. 4.		FFCH552	MS26, M601W
FRA1512	M602W	FFCH557	MS26, M601W
FRA1812	M602W	<b>NOT</b> : See note 11, pg. 4.	
FRA4024	M602W	QFF1500	TH400024, MS26, M601W
FRA4027	M602W	QFF3007	MS26, M601W
FRA3027	M602W	QFF4008	MS26, M601W
FRA4020	M602W	QFF4004	TH400024, MS26, M601W
FRA4824	M602W	QFF4007	MS26, M601W
FRA4827	M602W	QFF4804	MS26, M601W
FRA4820	NA	QFF4807	MS26, M601W
<b>NOT</b> : See note 10, pg. 4.		<b>NOT</b> : See note 12, pg. 4.	
GFR1500	TH400024, M601W, M611W, T100, WR651	QCH1101	TH400024, TH300024, M601W, MS26
GFR2004	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661	QCH1151	TH400024, M601W, MS26
GFR2404	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661	QCH1202	TH400024, TH300024, M601W, MS26
GFR1500T2	TH400024, M601W, M611W, T100, WR651	QCH1207	TH400024, TH300024, M601W, MS26
GFR2004T2	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661	<b>NOT</b> : See note 12, pg. 4.	
GFR2404T2	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661		
QFG1512IFM	TH400024, M601W, M611W, T100, WR651		
QFG2024IFM	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661		
QFG2224IFM	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661		
QFG2228IF	M602W, M612W, T200, WR661		
QFG1512T2M	TH400024, M601W, M611W, T100, WR651		
QFG2024T2M	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661		
QFG2224T2M	TH110DPP, TH400024, TH300024, M602W, M612W, T200, WR661		



# SP LTY ONTROLS



CAT. NO.	VOLT	AMPS
L R1120	120	22A
L R208240	208/240	22A
L R1277	277	19A

T LO NO	WR	WR P	WT WT	LTR S R S
<b>ction</b>	Snap Action Switch	Snap Action Switch	Positive snap action switch	Electronic Relays
<b>Type</b>	SPST	SPST	SPDT	Microprocessor base design
<b>mp Rating</b>			Nema 4X rated	These electronic relays have been designed for silent control of high voltage resistive loads from a low voltage control circuit. Inductive motor loads can also be controlled (120V to 240V only). Compatible with 24V thermostats and accepts analog signal of 0-10V DC.
<b>V</b>	25A	25A	25A n/a	
<b>V</b>	22A	22A	25A	
<b>V</b>	22A	22A	25A	
<b>V</b>	18A	18A	22A	
<b>Pilot uty</b>	Yes 125VA	Yes 125VA	Yes 125VA	
<b>Range (° )</b>	40°F to 90°F	40°F to 90°F	40°F to 110°F	
<b>ifferential</b>	+/- 3°F	+/- 3°F	+/- 2 1/2°F	
<b>eatures</b>	Rugged design for garages, factories, warehouses and similar commercial and industrial installations. The WR80 can control several heaters by using an external contactor.	This explosion proof room thermostat is suitable for Class I, Group D and Class II, Groups E, F, and G locations.	Nema 4X weatherproof enclosure. The control has a SPDT output and can be used for heating or cooling (ventilation) Multi-positional mounting offers flexibility in new or existing installations.	The relays can be used with model LT186F01 electronic room sensor, providing proportional and integral control. Also can be tied to building management systems.

# SP LTY ONTROLS



T LO NO	LTR	T	M T W M T
<b>ction</b>	Dual Silent Relay	Enclosure protection for thermostats.	M600THW - White thermostat cover with built-in thermometer. For M600 Series stats.
<b>Type</b>	2 single pole switches.		
<b>Watt Rating</b>	Resistive Inductive	Material: Impact resistant polycarbonate. Clear. Dimensions are: 7"L X 4.28"H X 2.75" D	M600THB - Beige thermostat cover with built-in thermometer. For M600 Series stats.
<b>V</b>	N/A		
<b>V</b>	25A 1HP, 8.8A		
<b>V</b>	25A 1HP, 8A		
<b>V</b>	N/A		
<b>Pilot uty</b>	Yes 125VA	Thermostat enclosure kits are designed to protect the thermostat. Circulating slots allow airflow for proper operation. Guards are lockable and a key is provided to maintain security.	
<b>Range (° )</b>	Can be operate in 20 to 140°F		
<b>ifferential</b>	Accuracy: Within 1.5°F of setpoint		Minimum 50pcs Allow 4 weeks.
<b>eatures</b>	This dual level temperature relay may be used to operate two separate heating loads by means of a single low voltage thermostat. Relay is mounted in an enclosure.		

