

Hoffman Controls

Product Data

707 Series Interface

701 Series Control Systems



707 Series Interface

Description

The 707 Series Interface is required when thermostats other than the Hoffman 701 Series are used.

All 701 Series Masters are designed to accept the Hoffman 10K thermistor input signal provided by the 701 Series thermostat. When other than 10K thermistor thermostats are required, a 707 Series interface must be used for the specific input signal applicable. The specific 707 Series Interface accepts the required signal as an input and proportions that signal to the 701 Master. The interface allows a variety of possible standard commercial input signals to be used for controlling the 701 Master.

The interface samples the volts, amps, or resistance of the thermostat or transducer input signal and gives a command signal proportional to the error between the setpoint and the actual condition sensed.

The command signal occurs at zero voltage crossing to minimize RFI (Radio Frequency Interference).

When the output of the interface is zero voltage, the power unit (701 Master) will provide a constant "off signal" and line voltage to the load will not conduct. When voltage is applied from the output of the interface to the power unit, the length of "on time" will be proportional to the error between set point and maximum signal available as set by the span. The time base is provided by the interface and allows the output of the interface to duplicate the output of the 701 Series Thermostat.

Application

Table 1 references the Master/Slave Power Control Units that are available for controlling the load. Table 2 indicates the specific 707 Series interface model required for the available thermostat input.

Specifications

Voltage	24V AC \pm 10%
Current	85 mA
Frequency	50/60 Hz
Time Base	5 Sec.
Input Impedance	5 x 10 ⁶ Ohms
Output Pulse	1 millisecond @ 10 Volts
Maximum Ambient	75° C
10" Flying Leads	22 A.W.G. / UL1015

Table 1

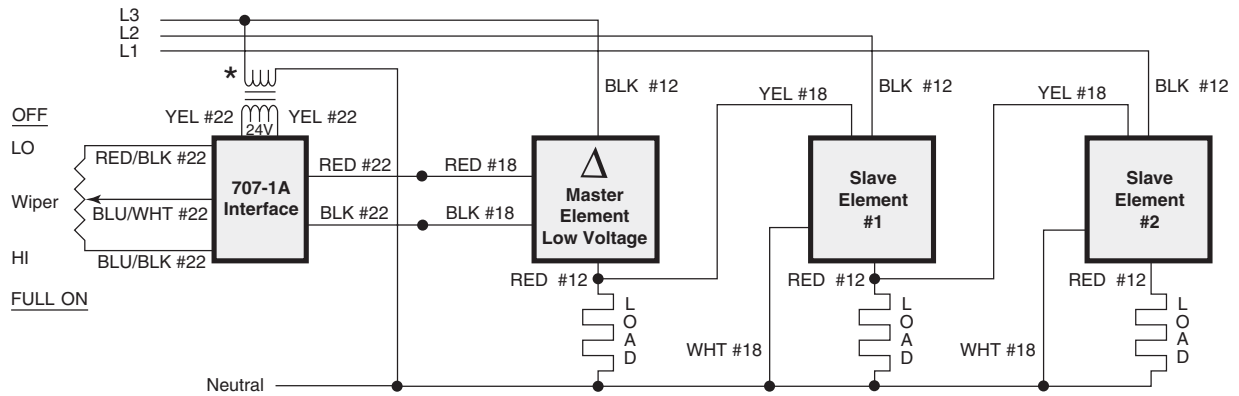
Duct Heater Part Number	Ceiling, Cable Baseboard Part Number	Volts	Amps	Kw
Low Voltage Masters				
701-90	701-83	120	16.6	2
*701-123	*701-130	120	25.0	3
701-73	701-80	208/240	16.6	3.45/4
701-74	701-81	277	14.0	4
701-75	701-82	480	12.5	6
701-35	701-24	208/240	25.0	5.2/6
701-36	701-25	277	25.0	7
701-26	701-6	480	25.0	12
Slaves				
701-87	701-85	120	16.6	2
*701-124	*701-131	120	25.0	3
701-68	701-32	208/240	16.6A	3.45/4
701-70	701-77	277	14.0	4
701-72	701-79	480	12.5	6
701-48	701-38	208/240	25.0	5.2/6
701-50	701-40	277	25.0	7
701-27	701-7	480	25.0	12
Slaves (4 Wire WYE only)				
*701-115	*701-116	120	16.6	2
*701-127	*701-132	120	25.0	3
*701-17	*701-118	277	14.0	7
*701-19	*701-120	277	25.0	7

* Manufactured to U.L. standards but not U.L. Recognized

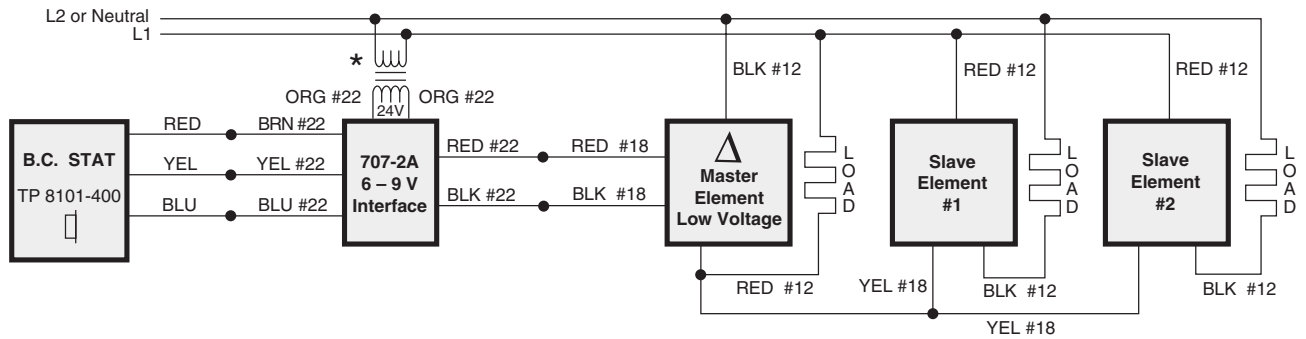
Table 2

Part Number	Mounting	Signal Input	Note: Use With
707-1A	Screw	0 – 135 Ohm	0 – 135 Ohm *
707-2A	Screw	6 – 9V	BC – TP8101
707-3A	Screw	4 – 7V	MH – Micronic
707-4A	Screw	4 – 16V	Johnson – TC4551**
707-4ASCS	Screw	8 – 16V	Staefa**
707-5A	Screw	4 – 20mA	Honeywell-Johnson***
707-6A	Screw	1 – 1.8V	Honeywell

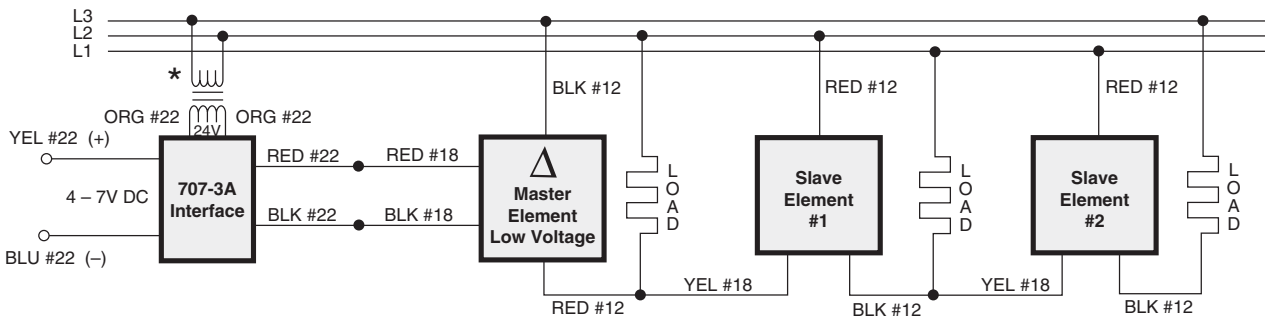
* May be Thermostat or Transducer.
 ** Separate 24 VAC Control Transformer required.
 *** 500 Ohm Impedance.



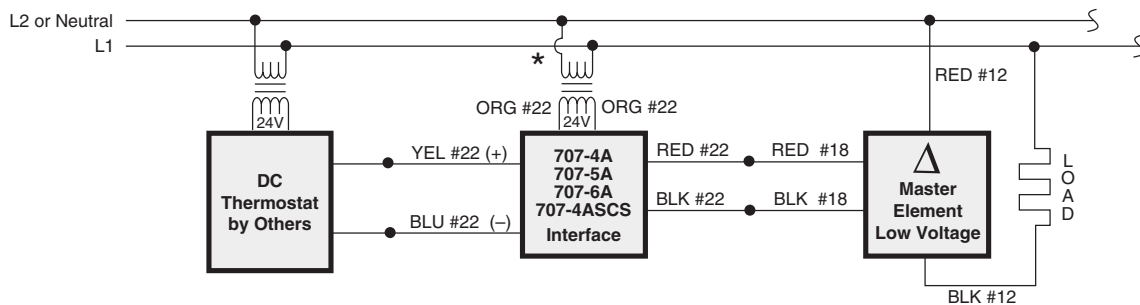
707-1A Interface Controlling 3-Phase Wye



707-2A Interface Controlling Multiple Single Phase



707-3A Interface Controlling 3-Phase Delta



707-4A, 5A, 6A or 4ASCS Interface Controlling a Single Phase

* Transformer Must Be On Same Phase as Master

△ BLUE & YELLOW Leads On Master Not Used.

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