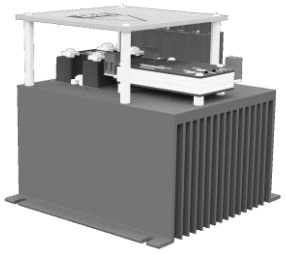
HD480-I Heater Driver with Current Interface (764-002)

The HD480-I Heater Driver is an upgrade/conversion option for the godet heater driver on Rieter/SwissTex extrusion machinery. The unit mounts in place of the original heater driver but accepts a standard 4-20 mA signal (instead of the 14,935 - 21,731 Hz Rieter frequency signal) for 0-300° C sensed temperature. When used in conjunction with the Binsfeld DS220 Digital Stator, the HD480-I allows users to convert machine control from the unique Rieter frequency to industry standard 4-20 mA.



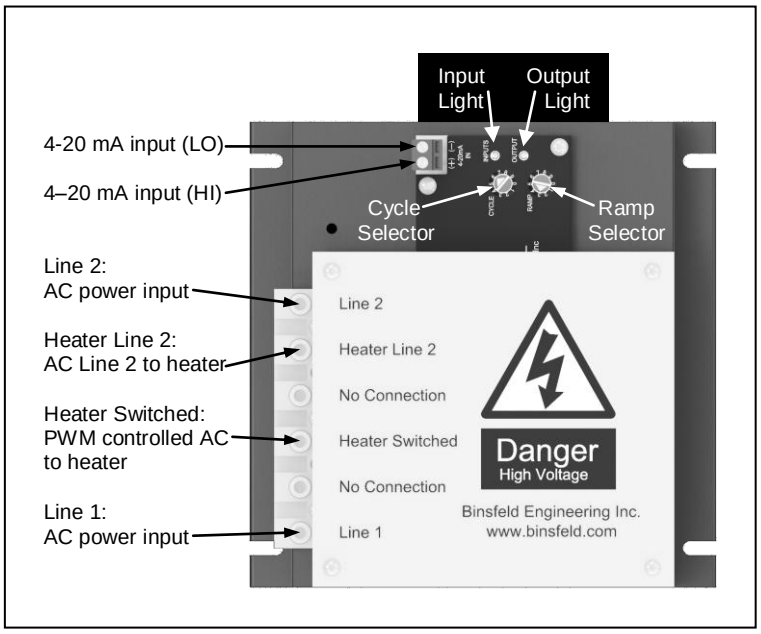
System Status Indicators

When the Input Light is OFF (not flashing) the input current is too low to power the circuit.

When the Input Light is flashing at the rate of 5Hz, the circuit is powered but AC voltage is not detected. Check to make sure AC voltage is present at the L1 and L2 connections. If necessary, check internal wiring for loose connections or broken wires.

The Output Light follows the state of the output PWM control signal. When the light is OFF, the output is OFF. When the light is ON, the output is ON.

The Output Light also indicates an input overcurrent condition when it flashes in a repeating pattern of two quick 125msec ON pulses followed by a ½ second OFF time. An input overcurrent condition is declared when the measured control input current is greater than 24mA. While an input overcurrent condition is detected, the PWM output to the solid-state relay is held OFF.



HD480-I Input and Output Terminals

Ramp Selector soft-start adjustment settings

Ramp setting	soft-start partial half-cycles	50Hz ramp time (msec)	60Hz ramp time (msec)
0	0	0	0
1	2	30	25
2	4	50	42
3	6	70	58
4	8	90	75
5	10	110	92
6	12	130	108
7	14	150	125
8	16	170	142
9	18	190	158

Cycle Selector PWM period settings

Cycle setting	PWM period (seconds)	50Hz half cycles	60Hz half cycles
0	1.0	100	120
1	1.2	120	144
2	1.4	140	168
3	1.6	160	192
4	1.8	180	216
5	2.0	200	240
6	2.2	220	264
7	2.4	240	288
8	2.6	260	312
9	2.8	280	336

HD480-I Heater Driver with Current Interface (764-002)

Specifications

HD480-I Assembly	
Operating Voltage	80-530 VAC (47-63 Hz)
Max Load Current	63 Arms
Min Load Current	150 mArms
Input	4-20 mA at minimum 14 V compliance (4-20 mA source must be able to drive 14 V min)
PWM Period	Adjustable 1 to 2.8 seconds
PWM Duty Cycle	On-Time is proportional to 4-20 mA input (i.e. 0% at 4 mA, 100% at 20 mA)
Operating Temperature	-30 to 50° C
Solid State Relay Module	
Crydom Part Number	D4875-10

Notes:
Torque Heater and AC Line field connections to 15 in-lb.

In order to maximize convection cooling, mount the heat sink fins in a vertical direction with a minimum of 1-inch clearance above and below the HD-480-I device.

This User's Guide is subject to change without notice.

Warranty