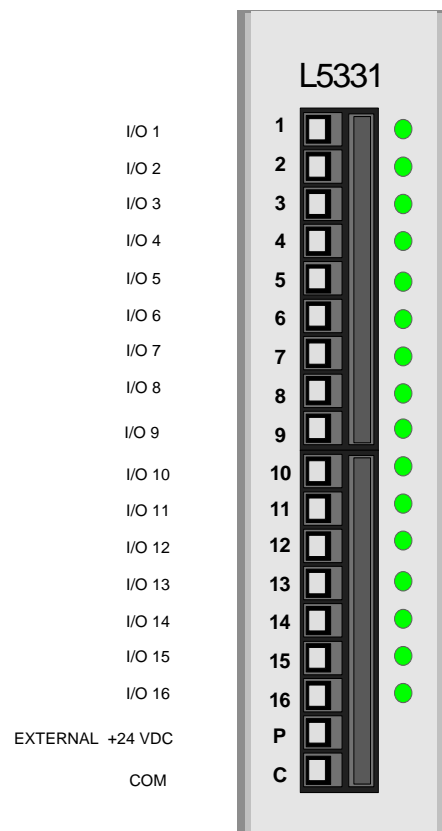


## L5331 Digital LinkCard

### GENERAL DESCRIPTION

The L5331 Digital LinkCard is an I/O card that plugs into a slot on an L5300 LinkRack or L5391 LinkStation. It provides an efficient means to interface discrete logic signals with the LINK fiberoptic network. Typical uses would include exchanging machine logic states with the main PLC, accepting pushbutton, selector switch and limit switch information and driving PLC input modules, relay coils and high efficiency DC solenoids.

The Digital LinkCard has 16 I/O points, each of which can be configured as either an input or an output. The L5331 operates on 24VDC active high logic, the power to be externally sourced, both for inputs and outputs. Each I/O point has visual confirmation in the form of an LED that illuminates when in the active state. The input and output circuits are isolated from the backplane circuitry, but not from one another. Terminals 1 and 2 can be software configured to receive a high frequency quadrature signal, such as an encoder waveform. Terminations are in the form of pluggable screw type terminal blocks. Terminal designations are shown in the figure.



### FUNCTION BLOCK

The L5331 is a function block which can be used within a LinkRack L5300 or LinkStation L5391 configuration. It is accessible using the Windows™ based graphical configuration package, ConfigEd 5 or higher, by opening an L5300 or L5391 file. Clicking on **Block/LinkCard/L5331 Digital** makes the L5331 block appear. Double-click on it to set the "Site" information. This refers to the slot number in the L5300 or L5391 where the Digital LinkCard is inserted. Choose from J1 (leftmost) to J4 (rightmost). Detailed description of the function block may be obtained from the on-lineHelp menu in ConfigEd.

# L5331 Digital LinkCard

## TECHNICAL SPECIFICATIONS

### Environmental

Operating temperature	0°C to 50°C (32 to 122°F)
Storage temperature	-10 °C to +70 °C (14 to 158°F)
Humidity	85% R.H. in a dry, non-condensing environment
Enclosure Rating	Touchsafe IP20. To be mounted inside an enclosure

### Supply

Supply Voltage	5 VDC, supplied by backplane
Current Consumption	225 mA Typical
Power Dissipation	1.5 W or 100mW per energized input 100mW per energized output if load impedance > 1 Kohm, 150mW per energized output if load < 100mA

### Inputs

	(Terminals 1 -16)
Range	0 to +24 VDC, Protected for +30VDC
Impedance	6.6 Kohms
Threshold	True state > 15 VDC, False state < 5 VDC
Speed	> 150 Hz square wave input
Filtering	1 to 30,000 ms (software configurable)

### High Frequency Inputs (Terminals 1 and 2)

Voltage Range	0 to +15 VDC, Protected for +30VDC
Threshold	True state > 4.5 VDC, False state < 1.5 VDC
Frequency Range	

	5V	12V	15V
Quadrature signal	300 KHz	150 KHz	125 KHz
Pulse train	300 KHz	300 KHz	250 KHz

Direction Sensing	(1) Quadrature signals: By phase difference detection between the two waveforms on terminals 1 and 2; OR (2) Pulse train on terminal 1 and a direction indication bit on terminal 2. (0=forward, 1=reverse)
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### Outputs

Range	Depends on external sourcing supply
Current	100 mA continuous, per output 200 mA for 5 min., one output at a time Short circuit proof according to IEC 1131-2
Voltage Drop	1.5 VDC maximum

### External 24VDC Sourcing Supply

Voltage Range	15 to 24VDC nominal
Tolerance	± 10%
Current	4 mA typical per energized input 4 mA typical per energized output + all output loading

### Physical

Height	120mm (4.72 in)
Width	32mm (1.25 in)
Depth	90mm (3.54in)
Weight	0.2 kg (0.45 lbs)