I/O Specification

Digital IO interfaces

Digital IO's of the 3iCube Camera are electrically decoupled by opto couplers to prevent damage or unwanted interference by ground loops or block voltage spikes. An opto coupler is a device using optical path to transfer an electronic signal between two circuits. It consists of a photodiode converting the input signal to light and a phototransistor converting the light again to electronic signal. 3iCube cameras provide 1 digital input and 1 digital output that way.

Digital Data Input

The digital input (Line0) can be used for trigger applications or other synchronization tasks for 3iCube cameras. An external signal level from 0~0.5V is interpreted as **Low**, a level from 3.3~24V is interpreted as **High**.

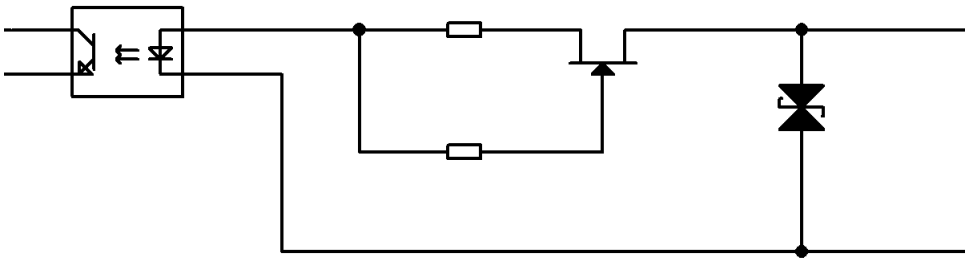

Figure 4: Digital Data Input

Table 5: Digital Input Characteristics

Parameter	**Value**
Operating voltage	0-24 V
Input current	7.5 mA
External resistor requirement	No
ON voltage level	> 3.3 V
OFF voltage level	< 0.5 V
OFF to ON delay	< 4 µs
ON to OFF delay	< 40 µs

Note:
For external trigger application a rising/falling edge signal is recommended to minimize the time it takes for the opto-coupler to change state.