

Optical Isolator Module

Model JI-4820ISO

Jupiter Instruments

Ver 1.3

Electrical Specifications

12/10/2018 Edition

| Input | |
|--|--|
| Signals | A, B, Z (single ended) |
| V _{IH} High-level input voltage | 2.7 V min |
| V _{IL} Low-level input voltage | 1.8 V max |
| V _{IMAX} Input voltage range | -4.5 V to 18 V |
| I _I Input current range | 2.0 mA to 9.5 mA (5.0 to 18 V) |
| | |
| Output | |
| Signals | A, /A, B, /B, Z, /Z (Differential) |
| Push-Pull Drive (-PP) | |
| V _{OH} High-level Output (V _{PWR} = 5V) | 2.8 V typ (@ I _{OH} = 20 mA) |
| V _{OH} High-level Output (V _{PWR} = 30V) | 28.1 V typ (@ I _{OH} = 20 mA) |
| V _{OL} High-level Output (V _{PWR} = 5V) | 375 mV typ (@ I _{OL} = 20 mA) |
| V _{OL} High-level Output (V _{PWR} = 30V) | 370 mV typ (@ I _{OL} = 20 mA) |
| I _{OH} Max (source) | 80 mA typ |
| I _{OL} Max (sink) | 80 mA typ |
| Open-Collector Drive (-OC) | |
| V _{OL} High-level Output (V _{PWR} = 5V) | 375 mV typ (@ I _{OL} = 20 mA) |
| V _{OL} High-level Output (V _{PWR} = 30V) | 370 mV typ (@ I _{OL} = 20 mA) |
| I _{OL} Max (sink) | 80 mA typ |
| Signal Frequency Max | 800 KHz (Test conditions: 330 Ohm load, V _{PWR} = 10.0 V, 50% D.C.) |
| | |
| Isolation Characteristics | |
| Isolation Voltage | 3750 Vrms typ |
| Isolation Resistance | 5G ohms typ |
| | |
| Power | |
| Voltage Source (V _{PWR}) | 5.0 V to 30 V |
| Current consumption | 24 mA to 39 mA (5.0 to 30 V) + signal load current |
| | |
| | |

Mechanical and Environmental Specifications

| Mechanical | |
|-----------------------|----------------------------|
| Dimensions (Case) | 2.0" x 0.8" x 2.0" (WxHxL) |
| Weight | 0.1 lbs |
| | |
| Environmental | |
| Operating Temperature | 0 C to 60 C |
| Storage Temperature | -40 C to 70 C |
| | |