



## Low-Power 5 KV(rms) Dual Digital Isolators

Check for Samples: [ISO7520](#), [ISO7521](#)

### FEATURES

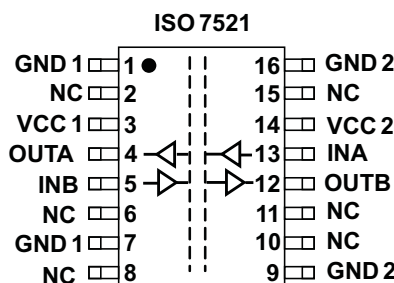
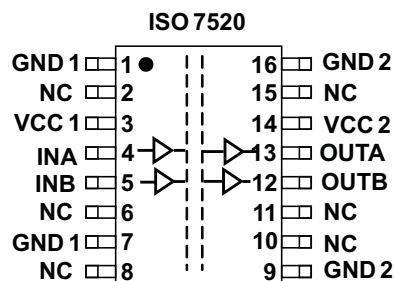
- **Highest Signaling Rate: 1 Mbps**
- **Propagation Delay Less Than 20 ns**
- **Low Power Consumption**
- **Wide Ambient Temperature: –40°C to 105°C**
- **Safety and Regulatory Approvals**
  - 5 KV(rms) for 1 minute per UL 1577
  - CSA Component Acceptance Notice 5A
  - IEC 60747-5-2 (VDE 0884 Rev. 2)
  - IEC 60601-1, 60950-1, & 61010-1 End Equipment Standards
- **50 kV/μs Transient Immunity Typical**
- **Operates From 3.3V or 5V Supply and Logic Levels**

### APPLICATIONS

- **Opto-Coupler Replacement in:**
  - **Medical Applications for IEC 60601-1 (5 KVrms Rated )**
  - **Industrial Field-Bus**
    - ProfiBus
    - ModBus
    - DeviceNet™ Data Buses
  - **Servo Control Interface**
  - **Motor Control**
  - **Power Supply**
  - **Battery Packs**

The devices have TTL input thresholds and require two supply voltages, 3.3V or 5V, or any combination. All inputs are 5-V tolerant when supplied from a 3.3-V supply.

**Note:** The ISO7520 and ISO7521 are specified for signaling rates up to 1 Mbps. Due to their fast response time, under most cases, these devices will also transmit data with much shorter pulse widths. Designers should add external filtering to remove spurious signals with input pulse duration < 20 ns if desired.



NC = No Internal Connection

### DESCRIPTION

The ISO7520 and ISO7521 provide double galvanic isolation of up to 5 KVrms for 1 minute per UL. These digital isolators have two isolated channels with uni-directional (ISO7520) and bi-directional (ISO7521) channel configurations. Each isolation channel has a logic input and output buffer separated by a silicon oxide (SiO<sub>2</sub>) insulation barrier. Used in conjunction with isolated power supplies, these devices prevent noise currents on a data bus or other circuits from entering the local ground and interfering with or damaging sensitive circuitry.



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