

IL600 and IL600A Passive Input Isolators

The Opto AlternativeSM

The IL600 and IL600A-Series Isolators are the world's first and only monolithic digital isolators. Our award-winning passive input technology combines optocoupler flexibility with superior IsoLoop performance. The IL600-Series has CMOS outputs and the IL600A-Series has high-voltage open-drain outputs.

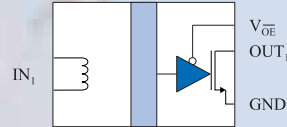
The devices are manufactured with NVE's patented IsoLoop spintronic Giant Magnetoresistive (GMR) technology for small size, high speed, and low power, and are available in die form. Unlike other isolators, the IL600 and IL600A-Series can be configured for inverting or non-inverting inputs.

The IL600 and IL600A-Series Isolators are available in PDIP, SOIC, and unique MSOP packages. Parts are also available as bare die for chip-on-board assembly. All NVE products are supplied RoHS compliant as standard.

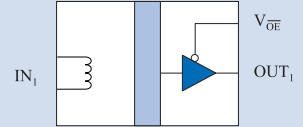
Popular IL600/IL600A-Series applications include serial line receivers, isolated I²C, and wired-OR controls.

Features:

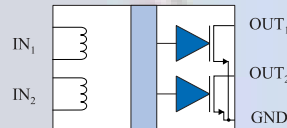
- 2,500 V_{RMS} isolation (1 minute)
- Failsafe operation
- DC correct
- 5 mA input current
- 3.3 V or 5 V supply
- 2.5 mA dynamic input current (50% duty cycle)
- UL1577 and IEC61010 approval
- PDIP, SOIC, MSOP, or bare die



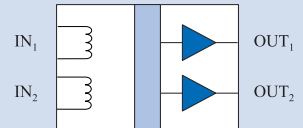
IL610A



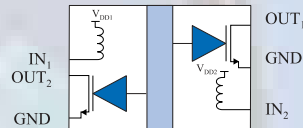
IL610



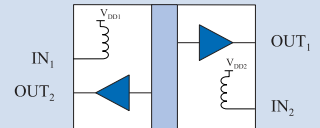
IL611A



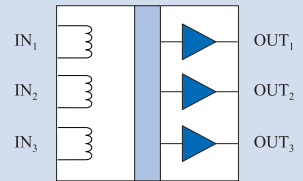
IL611



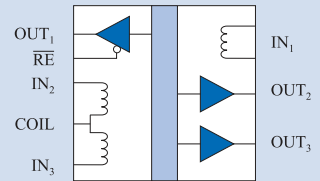
IL612A



IL612



IL613



IL614

Parameter	Min.	Typ.	Max.	Units
Data Rate (A-Series)	100 (10)			Mbps
Pulse Width Distortion		3	5	ns
Propagation Delay		8	15	ns
Propagation Delay Skew		4	6	ns
Transient Immunity	15	20		kV/μs
Temperature Range	-40		+85	°C