

MAKE THE RIGHT CHOICE

RELIABLE GALVANIC ISOLATION, SIMPLIFIED!

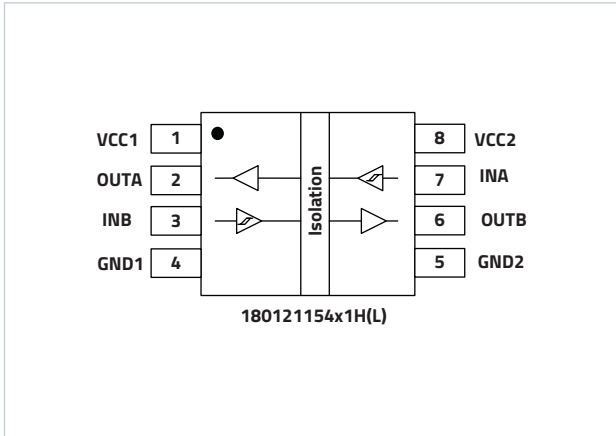
The new compact digital isolators are designed to provide a robust & safe isolation for high speed communication circuits. The isolators are available with and without integrated DC/DC converter. More on [REDEXPERT](#) & online catalogue.

WÜRTH ELEKTRONIK MORE THAN YOU EXPECT

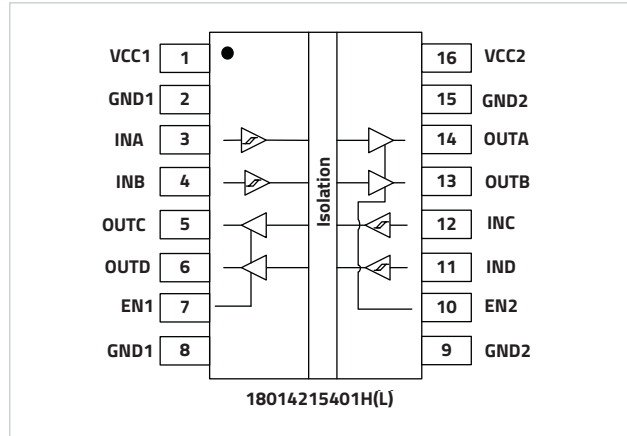


WPME-CDIS CAPACITIVE DIGITAL ISOLATOR STANDARD

Example: 1/1, SOIC-8NB or SOIC-8WB



Example: 2/2, SOIC-16WB



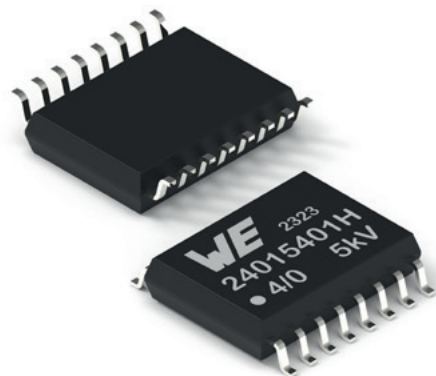
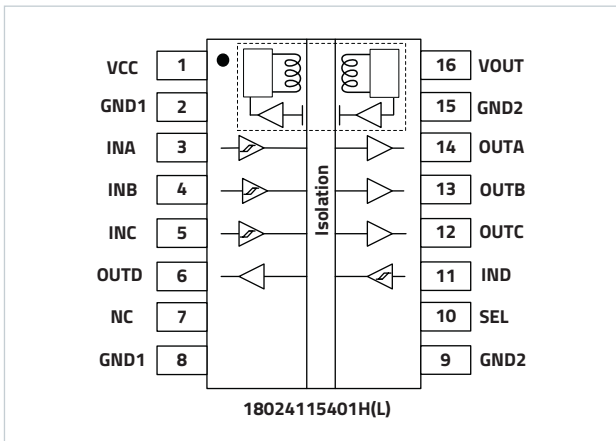
Oder Code	18012x154x1x	18014x15401x
Number of Channels	2	4
Channel Configurations	2/0, 1/1	4/0, 3/1, 2/2
Default Output	High or Low	
Data Rate Max	150 Mbps	
Isolation Voltage	3750 VRMS	5000 VRMS
Package	SOIC-8NB	SOIC-8WB
Type of Isolation	Basic	Reinforced

- 2 and 4 channels
- CMTI: 150 kV/μs
- Propagation delay: 12 ns typ.
- Supply voltage: 2.375 to 5.5 V
- Ambient temperature: -40°C to 125°C
- UL 1577 recognized (UL File No: E535458)
- DIN EN IEC 60747-17 (VDE 0884-17):2021-10 certification (Certificate no. 40058069 and 40058073)



WPME-CDIP CAPACITIVE DIGITAL ISOLATOR POWERED

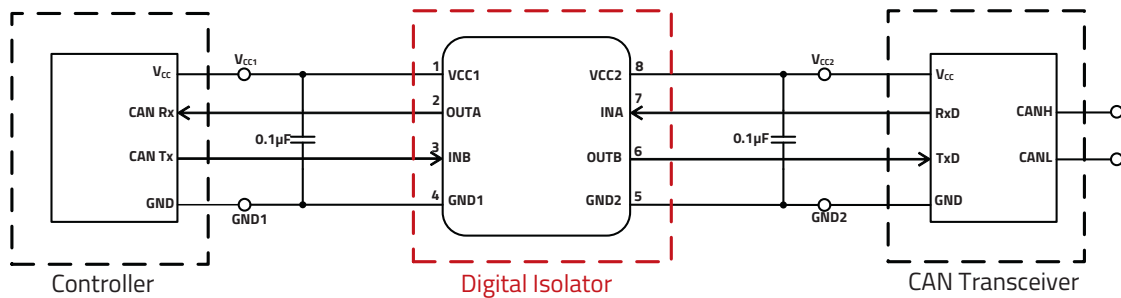
Example: 3/1, SOIC-16WB



Oder Code	18024x15401x
Number of Channels	4
Channel Configurations	4/0, 3/1, 2/2
Default Output	High or Low
Data Rate Max	100 Mbps
Isolation Voltage	5000 VRMS
Package	SOIC-16WB
Type of Isolation	Reinforced

- 4 channels
- Integrated 0.65W Isolated DC/DC Power Converter
- CMTI: 150 kV/μs
- Propagation delay: 10 ns typ.
- Supply voltage: 3.15 to 5.5 V
- Output of DC/DC converter: 3.3 or 5 V
- Ambient temperature: -40°C to 125°C
- UL 1577 recognized (UL File No: E535458)
- DIN EN IEC 60747-17 (VDE 0884-17):2021-10 certification (Certificate no. 40058069)

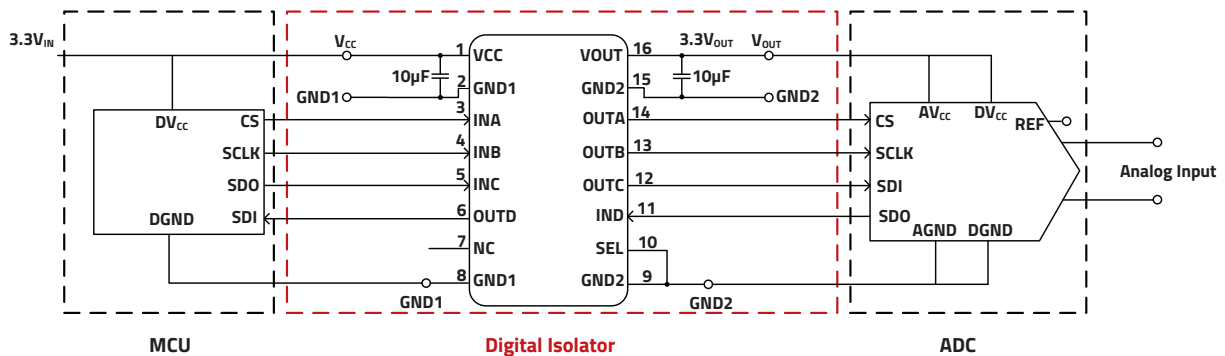
Application example CAN-Bus: 2 channel unpowered digital isolator



Recommended part numbers: 18012115411H (SOIC-8NB) or 18012115421H (SOIC-8WB)

- Digital isolators and isolated power supplies in combination eliminate ground loops
- Digital isolators placed between the CAN transceiver and the local CAN controller
- Isolated power module for both the primary and the secondary side of the digital isolator

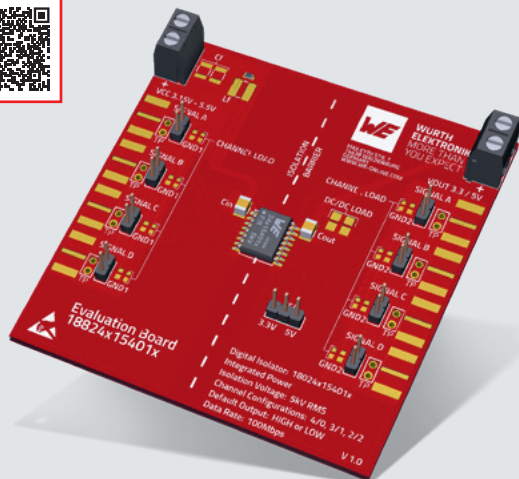
Application example SPI-Bus: 4 channel digital isolator with integrated DC/DC



Recommended part number: 18024115401H (SOIC-16WB)

- SPI interface for communication between the analog-to-digital converter and MCU
- The use of a digital isolator with an integrated isolated DC/DC converter significantly reduce the number of components in the design and saves space on the PCB

Evaluation Boards 18824x15401x



- 4 channel digital isolator with integrated 0.65 W isolated DC/DC converter
- Supply voltage: **3.15 to 5.5 V**
- DC/DC converter output **3.3 or 5 V** (selectable via jumper)
- The footprints of the optional input filter are optimized for SMT assembly
- Low propagation delay: **10 ns typical**
- High speed data rate up to **100 Mbps**
- Header pins or optional edge mounted SMA connectors (must be ordered separately if necessary) for signal sources
- Conducted and radiated EMI compliant according to EN55032 / CISPR32 class B



Check out **RED**EXPERT for more data and application examples

WPME-CDIS

Order Code	V _{CC min.} (V)	V _{CC max.} (V)	Channel Configuration	t _{PLH} , t _{PHL} (ns)	DR (Mbps)	CMTI (kV/μs)	V _{ISO} (V (RMS))	Package	
18012115421L/H	2.375	5.5	1/1	12	150	150	5000	SOIC-8WB	
18012015421L/H			2/0				3750	SOIC-8NB	
18012115411L/H			1/1				5000		SOIC-16WB
18012015411L/H			2/0						
18014215401L/H			2/2						
18014115401L/H			3/1						
18014015401L/H			4/0						

WPME-CDIP

Order Code	V _{CC min.} (V)	V _{CC max.} (V)	Channel Configuration	t _{PLH} , t _{PHL} (ns)	DR (Mbps)	CMTI (kV/μs)	V _{ISO} (V (RMS))	Package
18024215401L/H	3.15	5.5	2/2	10	100	150	5000	SOIC-16WB
18024115401L/H			3/1					
18024015401L/H			4/0					

V_{CC min.}: Operating Supply Voltage Min.; V_{CC max.}: Operating Supply Voltage Max.; t_{PLH}, t_{PHL}: Propagation delay; DR: Data Rate; CMTI: Common Mode Transient Immunity; V_{ISO}: Isolation Voltage