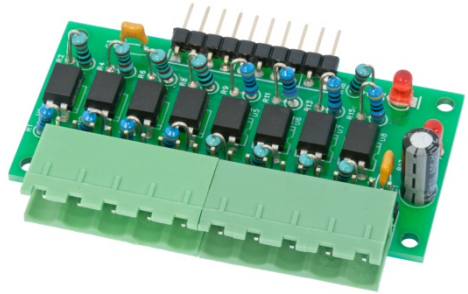


EK014 – Isolated I/O board 8-ch

Kit description:

EK014 is an optically isolated I/O board with four inputs and four outputs. The board can be used for control and interfacing with equipment in noisy environments or for level shifting signals between different voltages. The direction of the signals are referenced to the terminal block side of the board. Arrows on the board shows the direction for easier hookup. The four inputs are inverting, which means that a 0 (low) on the input will generate a 1 (high) signal. The



four outputs are non-inverting. All inputs are rated for voltages between 3.3V and 15V. For use with lower or higher signal levels, the current limiting resistors for the LEDs in the optocouplers must be replaced with a lower or higher resistance value to keep the maximum allowed current below 30mA.




- * Output rating: 50mA / 35V
- * Input voltage: 3.3 - 15V (5 - 30mA)
- * Dimensions: 30.48 x 60.96mm
- * Mounting holes: c-c 25.4 x 55.88mm, \varnothing 2.54mm

Assembly guide:

Before you begin mounting components, make sure the board is free from damage and scratches. Make sure all the components are included and are of correct value. Compare with the component list!

Begin mounting the lowest components and work your way up to the largest. IC sockets, resistors, ceramic capacitors and diodes go first. Electrolytic capacitors, connectors and potentiometers go last. Some components are polarized and must be mounted in the right way. Please observe the markings on the board!

Component list:

RefDes	Value	Qty.	Part.no.	
CON1	2.54mm 1x10p	2	41001167	
CON2	5mm 1x5p	2	40210033	
C1	10 uF	1	40520003	
C2, C3	100 nF	2		
R1, R3, R5, R7, R9, R11, R13, R15	470 ohm	8	40811247	
R2, R4, R6, R8, R10, R12, R14, R16	2 kohm	8	40811320	
R17, R18	1 kohm	2	40811310	
D1	3mm red	1	41004448	
D2	3mm green	1	41004450	
U1, U2, U3, U4, U5, U6, U7, U8	EL817	8	40302817	

Schematic:

