User manual

RS232 ISOLATION

V1.00

UASAGE NOTICE

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INTRODUCTION

Product: 2 channel RS232 Isolation unit
Product models: ISO2C232A, ISO2C232B

    In the industrial control applications, serial port is one of the most commonly used means of communication. Most of the times, the serial port is used to take data from panel equipment to computer. The basic thing that serial port requires to work is that the GND path should be common between communicating devices. This also poses risk of damage to the computer port when severe transients are generated in control panel or there are large potential differences in ground levels. In such situation, serial port isolation gives reliable solution for protecting ports of computer or other sensitive devices. The serial port isolator is a plug-n-play device that has been designed to address this problem.

    With the use of serial port isolator, not only the device ports are protected but the heavy production losses are also avoided. There are two variants available for this product. The ISO2C232A is high end product providing isolation for multiple signals available in RS232 port. The ISO2C232B is a low cost model that offers only RXD and TXD pins. Rest of the pins in this model are looped back to form NULL MODEM interface.
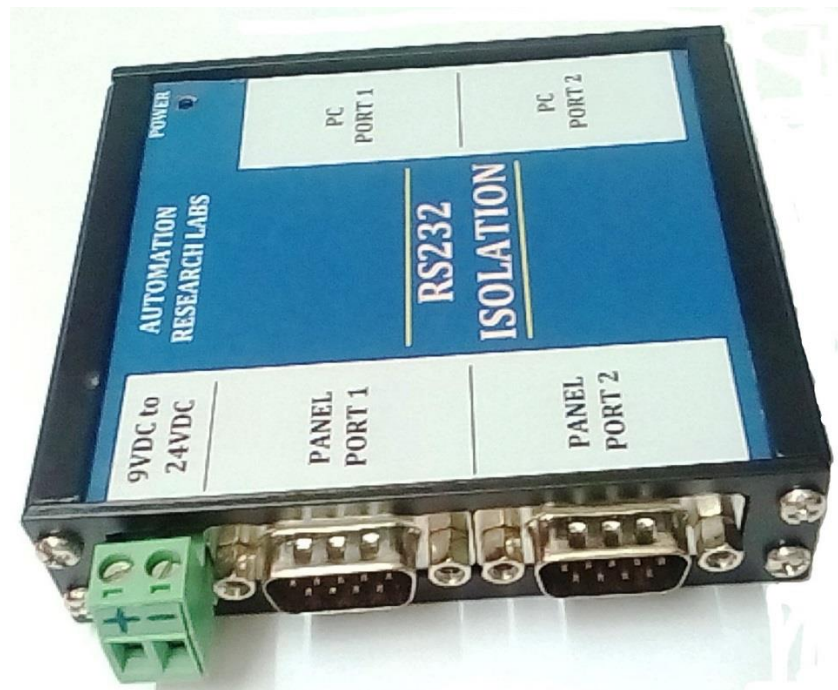
FEATURES:

- Two RS232 standard communication channels
- Single +9V to +24V DC power supply
- Standard PIN OUT as per RS232 standard
- Built in isolated power supply generation to avoid multiple external SMPS
- Compact and sturdy design for industrial use

SPECIFICATIONS:

- Power supply +9V to +24V DC, 80mA max
- Signal Isolation type: High speed optical isolation
- Internal Power supply: Inductive coupled with 1000V RMS galvanic isolation
- Max communication baud rate 115200

Mechanical Dimension: 22mm x 76mm x 91mm
Weight: 150gm approx.

CONNECTION DETAILS:

D type 9 pin female connector (For both CH1 and CH2)

1. To be connected to computer side
2. One-to-one cable required for PC serial port
3. For better noise immunity and protection, keep cable length to minimum

DB9 PIN	Product model ISO2C232A	Product model ISO2C232B
1	NC	
2	TXD	TXD
3	RXD	RXD
4	CTS	SHORTED WITH 6
5	GND	GND
6	DTR	SHORTED WITH 4
7	SHORTED TOGETHER	
8		
9	NC	
case	Connected to Ground	

D type 9 pin male connector (For both CH1 and CH2)

1. To be connected to panel side equipment
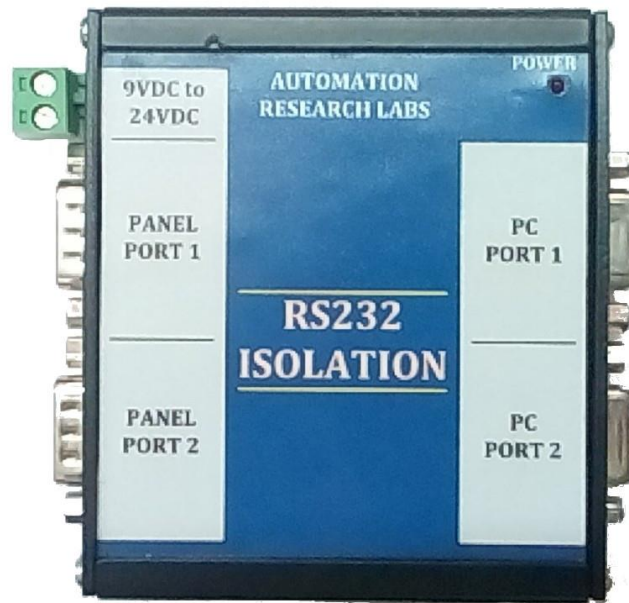2. Can withstand transients and noise coming from control panel
3. Cable length can be up to 10mtr.

DB9 PIN	Product model ISO2C232A	Product model ISO2C232B
1	NC	
2	RXD	RXD
3	TXD	TXD
4	DTR	SHORTED WITH 6
5	GND	GND
6	CTS	SHORTED WITH 6
7	SHORTED TOGETHER	
8		
9	NC	
case	Connected to Ground	

APPLICATION SETUP:

POWER SUPPLY COMMON FOR PLC AND ISOLATION UNIT

PC SIDE RS232 CABLE KEEP CABLE LENGTH SHORTER THAN 2Mtr

12V or 24V DC

COMPUTER OR ANY OTHER EQUIPEMENT TO BE PROTECTED

PLC OR ANY OTHER PANEL EQUIPEMENT

PANEL SIDE RS232 CABLE UP TO 10Mtr LENGTH
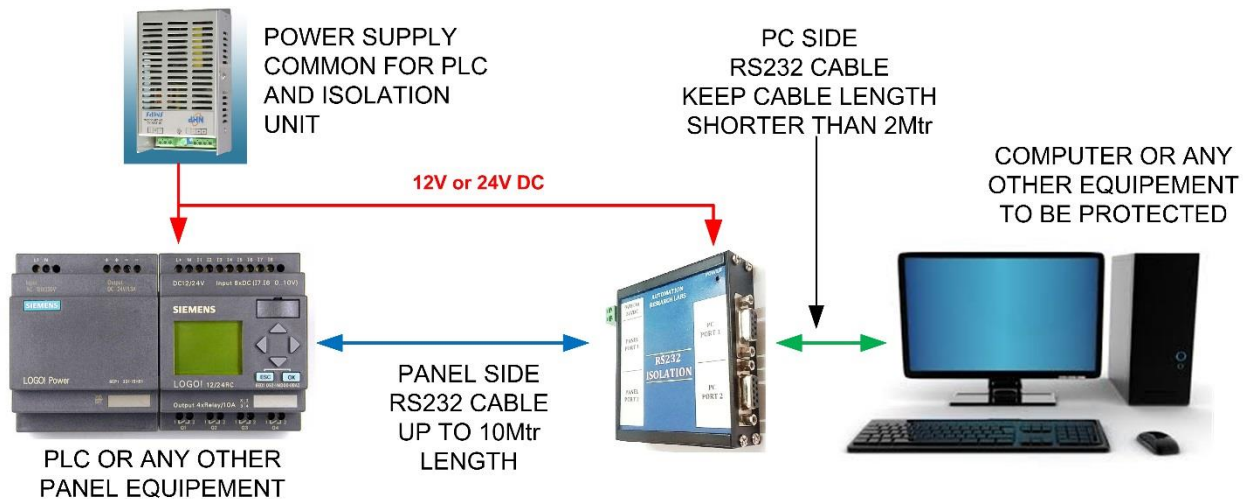
PRODUCT IMAGES:

Warranty statement

Products specified in this document are covered under warranty for a period of 12 months against manufacturing defects, workmanship and malfunction under normal operating conditions. The warranty is subject to the terms and conditions mentioned below.

1. The warranty commences from the date of sale for a period of 12 months irrespective of the actual installation date.
2. The warranty is against manufacturing defects and any subsequent malfunction of the instrument during the normal operation. The warranty shall not be applicable in case of accidental damage, damage due to wrong operation, connection or conditions that are out of normal operating specifications.
3. KARL PL, at its discretion may repair or replace the product depending on the condition of instrument, availability of spare parts and type of failure.
4. In case of warranty claim, the warranty period will not be extended and remains same as stated earlier from the date of sale.
5. Maximum liability of KARL PL remains up to repair or replacement of the product only. Any damages or losses raised out of use of the instrument are not covered by this warranty. In any case, cost of the product will not be refunded.
6. In case of warranty claim, the product should be sent over to KARL PL immediately after noticing the defect or failure. A detailed note of operating conditions in which fault occurred will be helpful in rectifying the defect.
7. Do not try to open or repair the instrument on your own. Warranty will stand null and void in such case. Products with tampered warranty seal will not be considered for warranty claims and regular service charges will be applicable.
8. In all claims, the company's decision will be final and legally binding.
9. Any and all disputes are subject to pune jurisdiction only.

Kurolikar Automation Research Labs Pvt Ltd
#226, Laxmi colony, Lane no. 5, Behind manish market, Hadapsar, Pune – 411028.
www.AutomationResearchLabs.com
Email: sales@AutomationResearchLabs.com