LRC-R4ML: 4DI / 4LRO Dual RS485 I/O Module

Order Information:

Model No.: LRC-R4ML

FEATURES

- Max. contact arrangement:1 A
- Contact material $AgSnO_2$
- Max. switching power 10,000 VA / 15,000 VA
- Max. switching voltage 440 VAC
- Max. switching current 40 A / 60 A
- Mechanical life 10^6
- 4DI Sink type with Photo Coupler
- Input and Output with LED Indicator
- 4 Push Button used to test the Relay output ON/OFF
- Auto detect Modbus RTU/ASCII protocol
- Modbus ID set with 6 Bits DIP Switch
- 2Bit DIP Switch used to set the Baudrate 9600, 19200, 38400, 57600, the other Baudrate set with Terminal
- Output State stored in the EEPROM, recovered while power on reset
- Dual RS485 Port
- Operation Power +24V

APPLICATIONS

Power Control
Lighting Control

GENERGAL DESCRIPTIONS

LRC-R4ML, are the RS485 I/O module using the ARM Cortx M3's family microprocessor as the RS485 I/O controller with limit devices. It can provide you lower cost, and useful distributed I/O module. The configuration of LRC-R4ML is using the console mode and DIP Switch for the Modus ID setting.

There are 4DI/4LRO offered by the LRC-R4ML. Each input or output of the LRC-R4ML is isolated with photo coupler. Here provided the good operation quality for the applications.

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SPECIFICATION

• Digital Input

Input Type	Sink Type,for Dry Contact
Number of Input	4
Input Low	0~3VDC
Input High	5~30VDC
Photo Coupler Isolation Protection	3750Vrms or 5000Vrms

• Relay Output

Output Type	Latch Relay Output
Number of Output	4 Ro
Maximum Voltage	Max. switching voltage 440 VAC
Maximum Current	Max. switching current 40 A / 60 A
Photo Coupler Isolation Protection	3750Vrms or 5000Vrms

• Modbus Address

Modbus Setting	6 Pin DIP Switch

• Serial Interface

Protocol	Modbus RTU/ASCII Slave
Number of Ports	2
Serial Standards	RS485 x 2
Connectors	Terminal Block
ESD Protection	15 kV for all signals
RS-485 Data Direction Control	automatic data direction control
Isolation Protection	UL recognized: 3750 VAC for 1 min. per U.L.

• Serial Communication Parameters

Data Bits	8
Stop Bits	1, 2

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Parity	None
Flow Control	-
Baudrate	9600, 19200, 38400, 57600bps(2 pin DIP Switch), option to 50 bps ~ 921.6 kbps
• Serial Signals	
RS-485-3w	Data+, Data-, SGND
• Software	
Configuration Options	Terminal
• Physical Characteristics	
Housing	PC (polycarbonate)
Weight	600 g
Dimensions	107x50x70mm (LxWxH)
• Environmental Limits	
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-40 to 85 °C (-40 to 185°F)
Ambient Relative Humidity	5 to 95% (non-condensing)
Altitude	Up to 2000 m (795 hPa), higher altitudes on demand
Note	
• Operation Power Requirements	
Input Voltage	12 to 36 VDC
Power Connector	Terminal block
Power Consumption	60 mA @ DC24V
Isolation	1500Vrms
• Standards and Certifications	
EMC	Relay Conform to VDE, UL, CSA, SEV, SEMKO
• Reliability	
MTBF (mean time between failures)	Mechanical life 10^6

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• Warranty

Warranty Period	1 year
Details	See http://www.infosystem.com.tw

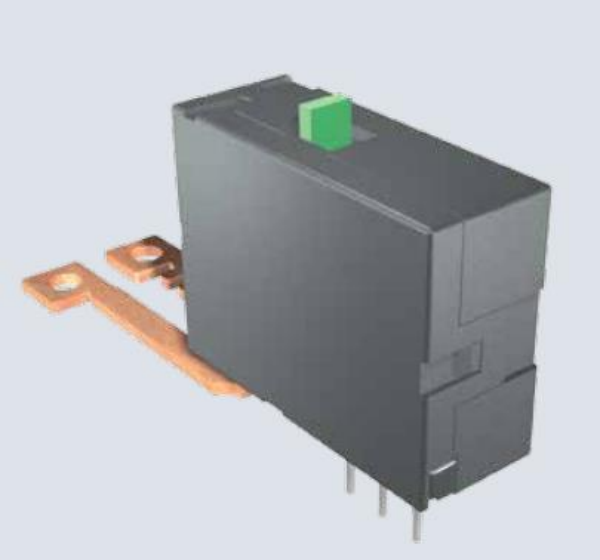
- **Relay (Gruner 704)**

  Description

  Polarized latching relay, with position display and switch for manual operation

  Using the H-armature principle the polarised latching relays are noted for their high resistance to shocks and vibrations. They are always in a defined switching-position and therefore there is no loss of information in case of power failure. The advantage of polarized latching relays is the pulse driven operation of some milliseconds and the coil heating can be neglected. Relay can also be set by manual operation.

  The relays are designed and manufactured in accordance to international Standards of IEC 61810 part 1 as well as they meet the requirements for Load Control Switches as of **IEC 62052 part 31**.



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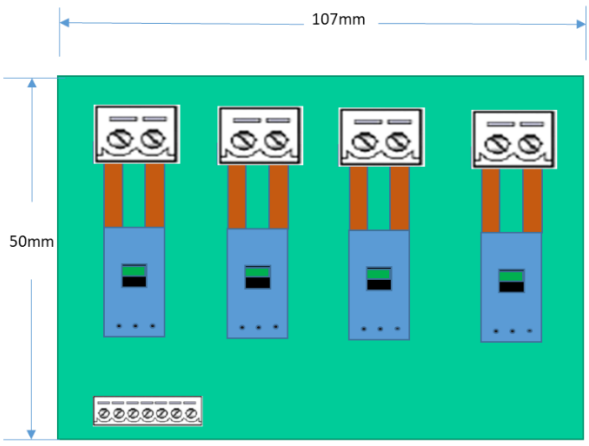
Technical data

Coil data	**Rated voltage**	**6 – 48 VD C**
	Rated power	**3.0 W**
	Operating power to set	**2.0 W**
	Pulse to set	**20 ms**
	Action time	**< 15 ms**
Contact data	**Max. contact arrangement**	**1 A**
	Contact material	**$AgSnO_2$**
	Max. switching power	**10,000 VA / 15,000 VA**
	Max. switching voltage	**440 VAC**
	Max. switching current	**40 A / 60 A**
	Mechanical life	**10^6**
Insulation	**Creepage and clearance distance coil – contact**	**8 mm**
	Test voltage coil – contact	**4,000 V eff.**
	Test voltage contact – contact	**–**
	Test voltage open contact	**1,000 V eff.**
	Dielectric strength	**coil – contact**
General data	**Ambient temperature**	**-40 … +70 °C**
	Weight	**36 g**
	Conform to	**VDE, UL, CSA, SEV, SEMKO**

- **Dimension**



- **Connection**

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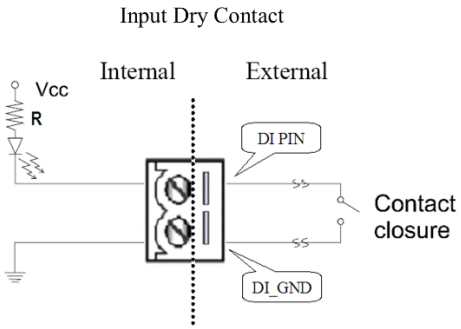

- **Configuration**
  RS485 Console Setting
  DIP Switch for Modbus ID
- **Installation**
  Din Rail

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