

IDOM-RM-Keypad User Manual

1. About IDOM-RM-Keypad

IDOM-RM-Keypad operates the ID700 drive by Modbus RTU serial comms. The maximum length of cable is up to 300 meters of screened cable.

1.1 Features

The main features of the IDOM-RM-Keypad are as follows:

- Display parameters.
- Fast editing/browsing/copying parameters.
- Own processor chip, supporting hot fit and unfit.
- Using the drive or external 24VDC supply and communicating through the RS485 signal.
- Meets ELV (Extra Low Voltage specification).

2. Technical specifications

Electrical characteristics	
Communication speed	19200bps
Power	625mW
Signal	Standard RS-485 protocol signal
Environment and mechanical characteristics	
Operating environment	Indoor, no direct sunlight, non-flammable, corrosive gasses
Operating temperature	-10°C~+40°C
Operating humidity	≤90% RH, non-condensing
Storage temperature	-40°C~+70°C
Communication distance	≤300m
Weight	130g
IP rating	IP20

3. Installation and dimensions

3.1 Overall dimensions

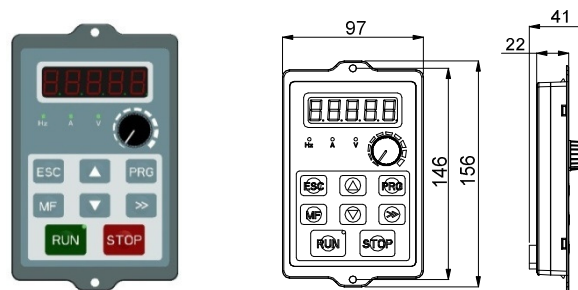


Figure 1 Outline and dimensions

3.2 Mechanical dimensions and mounting

There are three methods for mounting the IDOM-RM-Keypad.

- Using self taper screws to fix the keypad on the back of the four corners. The hole spacing and hole dimensions as shown in method 1 of figure 2.
- When the panel thickness is less than or equal to 1.2mm, the rectangle hole on the panel required for mounting the keypad should be 135mm X 93.5mm. Fix the keypad using clips on the keypad. Make two $\varnothing 5$ holes on the panel and use the M5 screws and nuts (supplied) as shown in method 2 of figure 2.
- When the panel thickness is greater than 1.2mm, the rectangle hole on the panel required for mounting the keypad should be 137mm X 93.5mm. Fix the keypad using clips on the keypad. Make two $\varnothing 5$ holes on the panel and use the M5 screws and nuts (supplied) as shown in method 3 of figure 2.

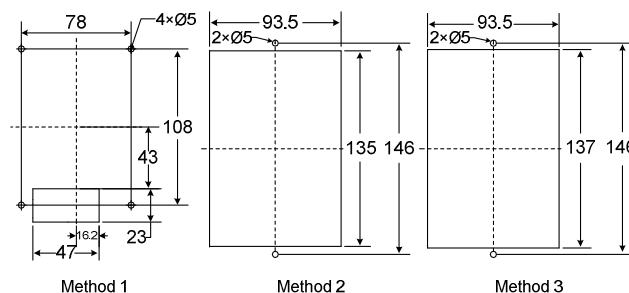


Figure 2 Mounting and hole dimensions

4. Connections

There is an RJ45 port and four terminals on the back of the IDOM-RM-Keypad. As shown in figure 3.

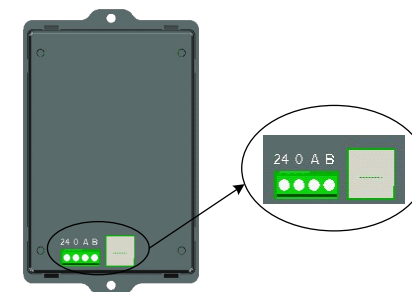


Figure 3 Connectors on the back of keypad

Functions of the RJ45 port and terminals can be found in the table below:

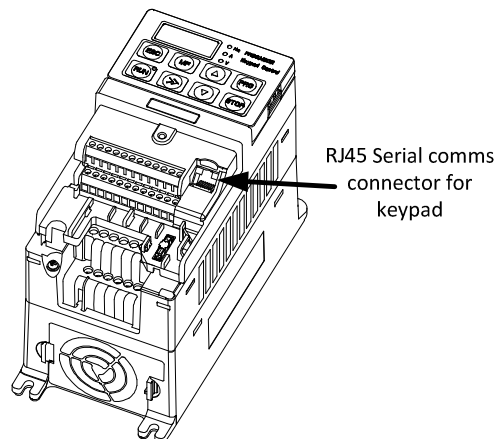
Name	Function
RJ45	Standard RJ45 port, used for communication with the drive, Modbus RTU protocol
A	RS-485 plus signal, used for communication with the drive, Modbus RTU protocol
B	RS-485 minus signal, used for communication with the drive, Modbus RTU protocol
24	+24V power supply
0	Common reference for +24V power supply

4.1 How to use

4.1.1 Connection between IDOM-RM-Keypad and the drive

There are two ways to connect the IDOM-RM-Keypad with the drive.

RJ45 Port connection: insert one end of the cable into RJ45 port of the drive, and insert the other end of the cable into RJ45 port of IDOM-RM-Keypad. The cable must be parallel. Line sequences in two plugs are the same. **Terminal connection:** connect IDOM-RM-Keypad terminals 24, 0, A and B to the drive terminals 24V, 0V, A and B, respectively.



4.2.1 Set-up parameters

When IDOM-RM-Keypad is connected to the drive, power up, then set the following parameters:

- P00.23 (P05.03) =1 can display all parameters
- P00.04 (P10.07) =2 communication control mode
- P00.05 (P01.01) =5 serial communications

The user can use IDOM-RM-Keypad to control the drive after setting the above parameters.



Note:

- IDOM-RM-Keypad can only be used with the ID700 series drives that use MCU software version V2.5.1.
- Do not try to operate two remote keypads from one ID700.
- When using the remote keypad, the drive can't communicate with other devices.
- The remote keypad's switch function is the same as the ID700 LED keypad's switch function.
- After resetting to factory default parameters on the remote keypad, it is necessary to power down and power up again.



4.2.2 Reference source switching

There are two reference sources.

Reference source switching: Reference source is potentiometer by

default. In the stop mode, when press  and  buttons at the same time, 'potentiometer mode' can be switched to 'digital mode' and vice versa.

Potentiometer mode: adjust reference frequency by adjusting the potentiometer on the remote keypad.

Digital mode: increase or decrease the frequency by pressing the  or  button on the keypad.

4.2.3 Parameter cloning

Upload parameters: Set P05.04=1 for uploading parameters to the remote keypad.

Download parameters: load factory defaults first (P00.24=1) and then set P05.04=2 for downloading parameters to the drive.

If trip F015 is initiated, it means that parameter cloning has failed. Reset this trip by pressing the "STOP" button and then clone parameters again.

Note: the different version of the software parameters can't cloned each other.

5. Fault diagnosis

When IDOM-RM-Keypad displays "-----", it means that communication between IDOM-RM-Keypad and the drive is interrupted. Buttons are invalid at that time. Check details as below:

- Is wiring is correct?
- Are the communication parameters are set correctly?
P10.02=1
P10.03=3
P10.04=1

Except the above communication trips, other trips may also occur in the following table.

Trip code	Trip description	Possible reason	Corrective action
F061	Remote keypad cloning wrong	The remote keypad memory has no data when downloading from the remote keypad	Upload the parameters to the remote keypad and then download
		Data loss	Power up again; Contact service
		Internal fault	Power up again; Contact service
F062	Remote keypad program overflow	Internal fault	Power up again; Contact service
F063	Remote keypad watchdog failure	Internal fault	Power up again; Contact service

Note: IDOM-RM-Keypad can display the trip codes.

www.imoticon.com