iSN-713-MRTU Quick Start

v1.0, March 2022

Packing List

In addition to this guide, the package includes the following items:

iSN-713-MRTU

Technical Support

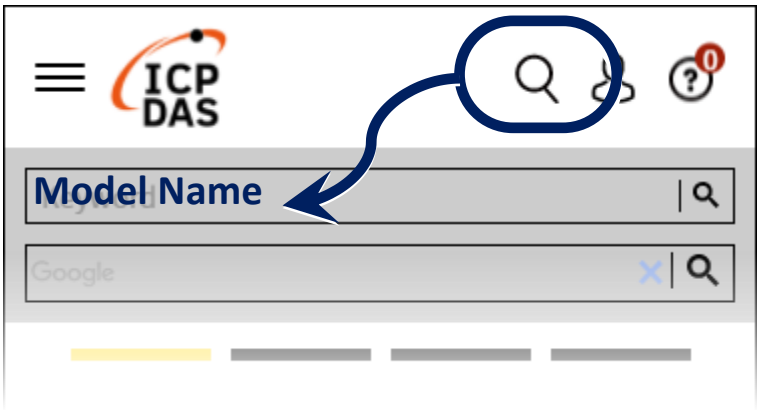
service@icpdas.com

www.icpdas.com

Resources

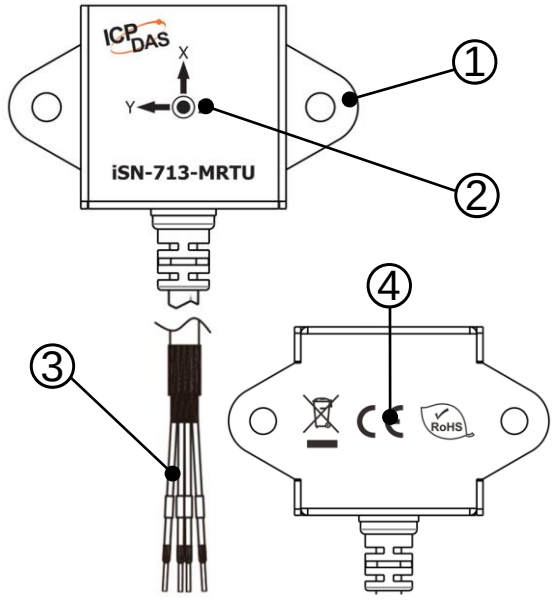
How to search for drivers, manuals and spec information on ICP DAS website.

- For Mobile Web



- For Desktop Web

1 Appearance & Pin Assignment



Number	Instructions
1	Wall mount
2	Vibration sensor
3	Power and RS-485 Connector
4	Magnetic mount

CONN.	Color	Pin Assignment
1	White	D-
2	Red	VCC
3	Black	GND
4	Green	D+

2 Connecting the Power and Host PC

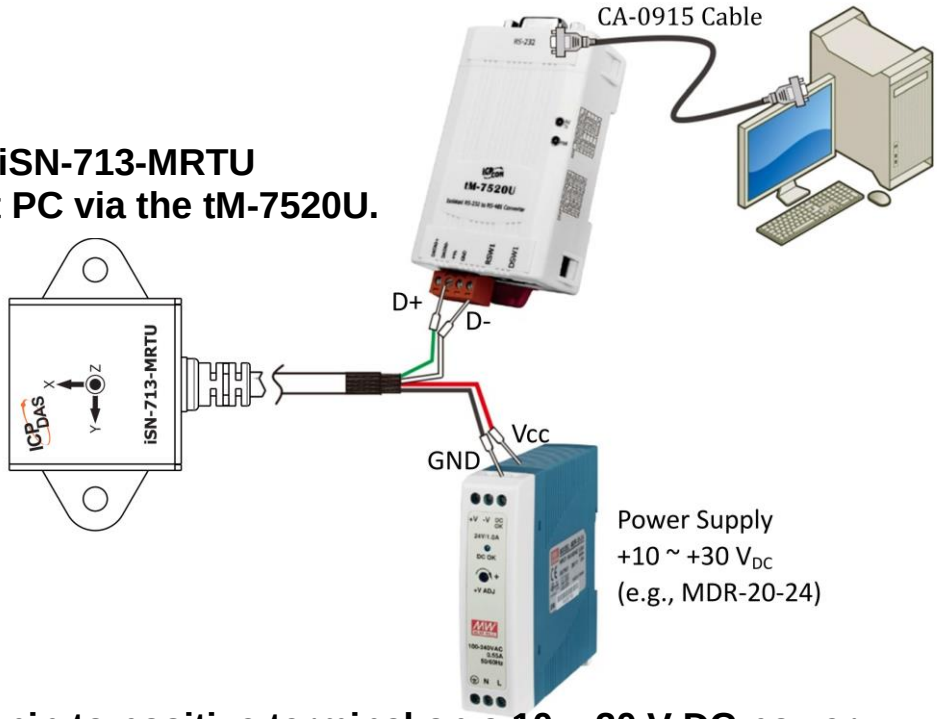
Prepare for device

☑ **RS-232 to RS-485 Converter: tM-7520U (optional)**

☑ **Exterior power supply device: MDR-20-24 (optional)**

Wiring

❶ **Connect both the iSN-713-MRTU module and the Host PC via the tM-7520U.**



❷ **Connect the VCC pin to positive terminal on a 10 ~ 30 V DC power supply, and connect the GND pin to the negative terminal.**

Factory Default Settings

The following is an overview of the factory default settings:

Item	Default
Device ID	1
Baud Rate	9600 bps
Data Format	Parity: NONE Data length: 8 (Fixed) Stop Bits: 1
Protocol	Modbus RTU

3 Modbus Register Table (Based 0)

RS-485 Communication parameters

Holding Register (4xxxx)

Register		Points	Description	Data Range	Attribute
DEC	HEX				
40001	0000	1	Modbus ID (Take effect after restart)	1~247	R/W
40002	0001	1	Baud Rate (Take effect after restart)	0: 9600 1: 19200 2: 38400 3: 57600 4: 115200	R/W
40003	0002	1	Parity (Take effect after restart)	0: NONE 1: ODD 2: EVEN	R/W
40004	0003	1	Stop Bits (Take effect after restart)	0: 1 1: 2	R/W
40005	0004	1	Filter bandwidth	0: 6K Hz 1: 3K Hz 2: 1K Hz	R/W
40006	0005	1	Zero calibration	0: Idle 1: Calibration 2: Reset	R/W
40007	0006	1	Restore factory defaults	0: Idle 1: Default value	R/W

Vibration Features

Input Register (3xxxx)

Register		Points	Description	Axis	Unit	Attribute
DEC	HEX					
30012	000B	1	RMS value of acceleration	X	mg	R
30013	000C	1	Maximum value of acceleration		mg	R
30014	000D	1	Peak to Peak value of Acceleration		mg	R
30015	000E	1	Crest Factor value of Acceleration		0.01 CF	R
30016	000F	1	RMS value of Velocity		um/s	R
30017 ~ 30026	0010 ~ 0019	10	The frequency corresponding to the maximum 10 groups of amplitudes 30017: Main frequency 30018~30026:Secondary frequency		Hz	R
30027 ~ 30036	001A ~ 0023	10	Maximum 10 groups of amplitudes 30027: Maximum amplitude 30028~30026: Secondary amplitude		um/s	R
30042	0029	1	RMS value of acceleration	Y	mg	R
30043	002A	1	Maximum value of acceleration		mg	R
30044	002B	1	Peak to Peak value of Acceleration		mg	R
30045	002C	1	Crest Factor value of Acceleration		0.01 CF	R
30046	002D	1	RMS value of Velocity		um/s	R
30047 ~ 30056	002E ~ 0037	10	The frequency corresponding to the maximum 10 groups of amplitudes 30017: Main frequency 30018~30026: Secondary frequency		Hz	R
30057 ~ 30066	0038 ~ 0041	10	Maximum 10 groups of amplitudes 30027: Maximum amplitude 30028~30026: Secondary amplitude		um/s	R
30072	0047	1	RMS value of acceleration	Z	mg	R
30073	0048	1	Maximum value of acceleration		mg	R
30074	0049	1	Peak to Peak value of Acceleration		mg	R
30075	004A	1	Crest Factor value of Acceleration		0.01 CF	R
30076	004B	1	RMS value of Velocity		um/s	R
30077 ~ 30086	004C ~ 0055	10	The frequency corresponding to the maximum 10 groups of amplitudes 30017: Main frequency 30018~30026: Secondary frequency		Hz	R
30087 ~ 30096	0056 ~ 005F	10	Maximum 10 groups of amplitudes 30027: Maximum amplitude 30028~30026: Secondary amplitude		um/s	R