iModule

01

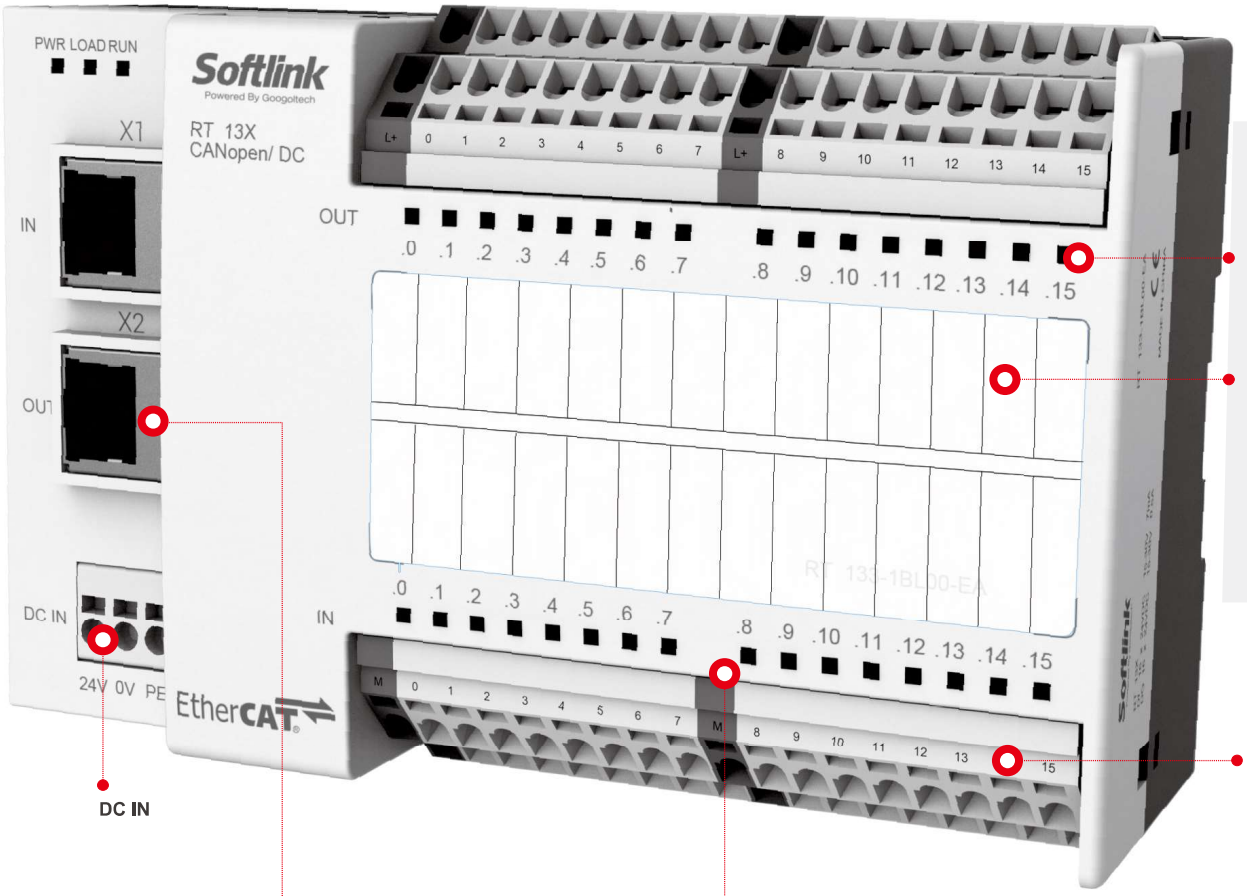
Distributed Fieldbus I/O

- Compact design, vibration resistance
- Spring terminals,get reliable connection
- Two layers terminals, saving wiring space
- Support PNP and NPN inputs
- Unique design of the internal power supply
- Decimal button, flexible switching from 0-99 stations
- Up to 32 channels for data communication

iModule series Fieldbus I/O integrated communication ports, power module, I/O module all in one, compact design and space-saving. It is widely used in various applications for stable and high cost performance.

Compact design in one unit

Unified shell dimension : 155*105*55mm (W/H/D)
Installation : standard DIN rail mounting,
specification is TS35/7.5
IP20



DC IN

Various of Fieldbus options

PROFINET® EtherCAT® Modbus® PROFIBUS® CANopen

Optimized electrical design

Every DI/DO terminal has a power connector inside for reducing wiring time

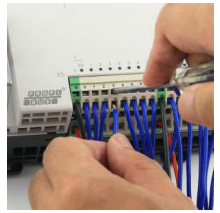
DI modules support PNP and NPN modes

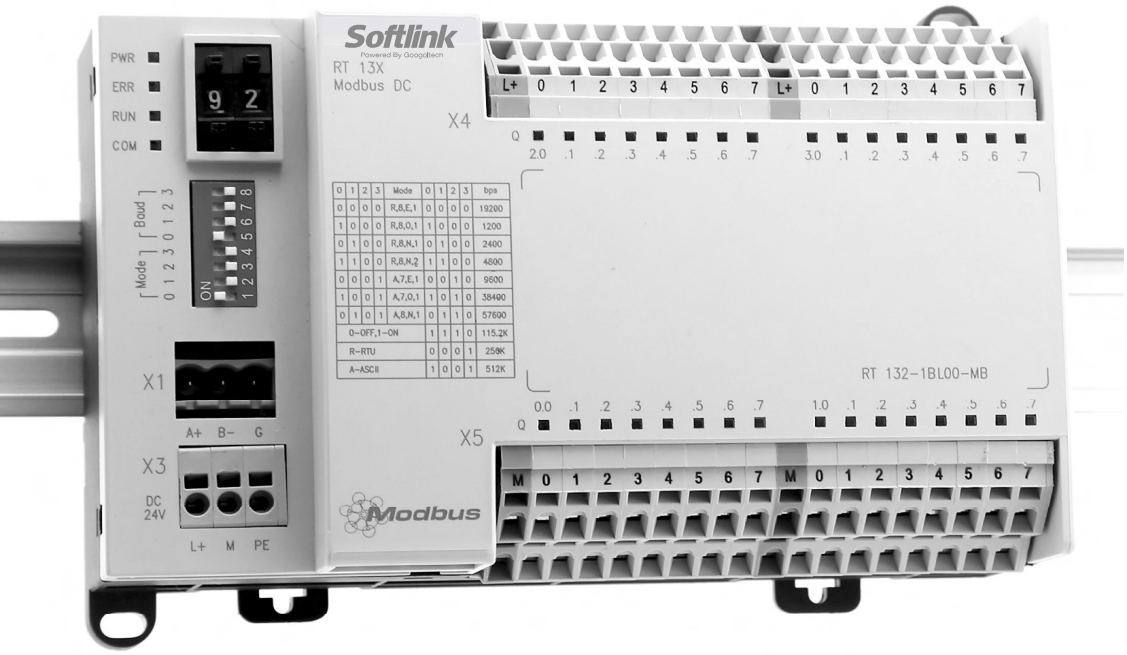
Clear status and diagnosis monitoring

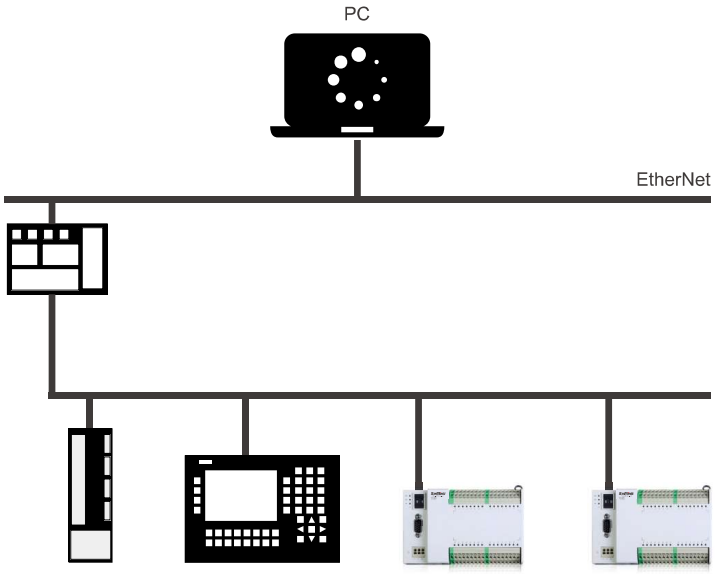
Clever labeling

Compact design

Spce-saving compact dimension, two layers of spring terminals







Modbus is one of the industrial field bus protocols. ModBus network has only one host. All communications issued by the host, this protocol supports traditional RS-232, RS-422, RS-485 and Ethernet devices. There are two kinds of transmission modes to choose from the ModBus system, a model to ASCII, another mode is RTU, the network can support as many as 247 remote slave controllers, but the actual number of slaves depend on the used communication equipment.

Module series Modbus-RTU remote I / O can be connected into a network with programmable logic controllers, RTU, SCADA systems, third-party devices defined by DCS Modbus protocol, to build a variety of complex monitoring systems, and to facilitate maintenance and extension of the system.

Order No.	Product Description
RT131-1BL00-MB	Digital32 Input
RT132-1BL00-MB	Digital32 Output (Mosfet)
RT133-1BL00-MB	Digital16 Input , 16 Output (Mosfet)

Order No.	RT131-1BL00-MB	RT132-1BL00-MB
Type	DigitalInput Module	DigitalOutput Module
Digital Input		
Number of Inputs	32	-
Input filter	0.5ms	-
Nominal input voltage	24 V DC(-15%/+20%)	-
"1" signal voltage	15~30VDC,7mA	-
"0" signal voltage	0~5VDC	-
Port protect	Impact over voltage protection	-
Digital Output		
Number of Inputs	-	32
Output Type	-	Mosfet
Nominal input voltage	-	24 V DC(-15%/+20%)
"1" signal voltage	-	Open drain output
"0" signal voltage	-	Max:1.5VDC,10kΩ Load
Max. output current(per Ch.)		0.5A
Short circuit current(per Ch.)		1A
Max. output current(Total.)	-	8A
On-Resistance	-	0.3Ω(type)/0.6Ω(Max.)
Port protect	-	Over voltage & overcurrent protection
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Modbus RTU/ASCII	Modbus RTU/ASCII
Physical layer	RS-485	RS-485
Connector	Pluggable connector(3Pin,A/B/GND)	Pluggable connector(3Pin,A/B/GND)
Communication Rate	1200bps~512kbps(config by 8-bit dial switch)	1200bps~512kbps(config by 8-bit dial switch)
Address config	00~99(config by 2-bit dial switch)	00~99(config by 2-bit dial switch)
LED Indicate		
PWR	Green	Green
ERR	Red	Red
RUN	Orange	Orange
Digital I/O	Green	Green
Dimensions(W/H/D,m m)	155×105×55	155×105×55

Order No.	Product Description
RT131-1BL00-MB	Digital32 Input
RT132-1BL00-MB	Digital32 Output (Mosfet)
RT133-1BL00-MB	Digital16 Input , 16 Output (Mosfet)

Order No.	RT133-1BL00-MB	RT133-1PL00-MB
Type	DigitalI/O Module	DigitalI/O Module
Digital Input		
Number of Inputs	16	16
Input filter	0.5ms	0.5ms
Nominal input voltage	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
"1" signal voltage	15~30VDC,7mA	15~30VDC,7mA
"0" signal voltage	0~5VDC	0~5VDC
Port protect	Impact over voltage protection	Impact over voltage protection
Digital Output		
Number of Inputs	16	16
Output Type	Mosfet	Relay
Nominal input voltage	24 V DC(-15%/+20%)	30 V DC/250V AC
"1" signal voltage	Open drain output	Relay Dry contact short circuit
"0" signal voltage	Max:1.5VDC,10kΩ Load	Relay Dry contact short circuit
Max. output current(per Ch.)	0.5A	1A
Short circuit current(per Ch.)	1A	2A
Max. output current(Total.)	8A	16A
On-Resistance	0.3Ω(type)/0.6Ω(Max.)	≤50mΩ
Port protect	Over voltage & overcurrent protection	-
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Modbus RTU/ASCII	Modbus RTU/ASCII
Physical layer	RS-485	RS-485
Connector	Pluggable connector(3Pin,A/B/GND)	Pluggable connector(3Pin,A/B/GND)
Communication Rate	1200bps~512kbps(config by 8-bit dial switch)	
Address config	00~99(config by 2-bit dial switch)	00~99(config by 2-bit dial switch)
LED Indicate		
PWR	Green	Green
ERR	Red	Red
RUN	Orange	Orange
Digital I/O	Green	Green
Dimensions(W/H/D,mm)	155×105×55	155×105×55

Remote I/O

EtherCAT

Order No.	Product Description
RT131-1BL00-EA	Digital32 Input
RT132-1BL00-EA	Digital32 Output (Mosfet)
RT133-1BL00-EA	Digital16 Input/16 Output (Mosfet)
RT133-1PL00-EA	Digital16 Input/16 Output (Relay)
RT133-3FC00-EA	Digital8 Input/8 Output (Mosfet) , Analog8 InputVoltage/4 Output
RT133-3FC10-EA	Digital8 Input/8 Output (Mosfet) , Analog8 InputCurrent/4 Output

CANopen

Order No.	Product Description
RT131-1BL00-CAN	Digital32 Input
RT132-1BL00-CAN	Digital32 Output (Mosfet)
RT133-1BL00-CAN	Digital16 Input/16 Output (Mosfet)
RT133-1PL02-CAN	Digital16 Input/16 Output (Relay)
RT133-3HF01-CAN	Digital8 Input/8 Output (Mosfet) , Analog12 Input/2 Output
RT133-3RJ00-CAN	Digital8 Input/8 Output (Mosfet) , 4Thermal Resistance
RT133-4TJ00-CAN	Digital8 Input/8 Output (Mosfet) , 4 Thermocouple
RT131-4RH00-CAN	16Thermal Resistance
RT131-4TH00-CAN	16 Thermocouple

PROFIBUS

Order No.	Product Description
RT131-1BL02-DP	Digital32 Input
RT132-1BL02-DP	Digital32 Output (Mosfet)
RT133-1BH02-DP	Digital8 Input/8 Output (Mosfet)
RT133-1BL02-DP	Digital16 Input/16 Output (Mosfet)
RT133-1PL02-DP	Digital16 Input/16 Output (Relay)
RT133-3FC00-DP	Digital8 Input/8 Output (Mosfet) , Analog8 InputVoltage/4 Output
RT133-3FC10-DP	Digital8 Input/8 Output (Mosfet) , Analog8 InputCurrent/4 Output
RT133-3KB00-DP	Digital16 Input/8 Output (Mosfet) , Analog4 Input(Voltage/Current)
RT133-3HC10-DP	Digital8 Input/8 Output (Mosfet) , Analog8 InputVoltage/4 Output
RT133-3RJ00-DP	Digital8 Input/8 Output (Mosfet) , 4Thermal Resistance
RT133-4TJ00-DP	Digital8 Input/8 Output (Mosfet) , 4 Thermocouple
RT131-4RH00-DP	16Thermal Resistance
RT131-4TH00-DP	16 Thermocouple

Modbus

Order No.	Product Description
RT131-1BL00-MB	Digital32 Input
RT132-1BL00-MB	Digital32 Output (Mosfet)
RT133-1BL00-MB	Digital16 Input , 16 Output (Mosfet)
RT133-1PL00-MB	Digital16 Input , 16 Output (Relay)

PROFINET

Order No.	Product Description
RT131-1BL00-PN	Digital32 Input
RT132-1BL00-PN	Digital32 Output (Mosfet)
RT133-1BL00-PN	Digital16 Input/16 Output (Mosfet)
RT133-1PL00-PN	Digital16 Input/16 Output (Relay)
RT133-3FC00-PN	Digital8 Input/8 Output (Mosfet) , Analog8 InputVoltage/4 Output
RT133-3FC10-PN	Digital8 Input/8 Output (Mosfet) , Analog8 InputCurrent/4 Output

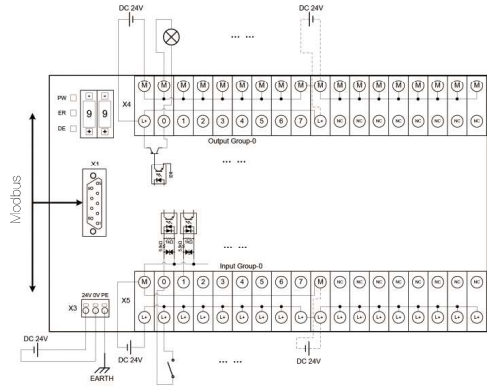
Fieldbus Connector

Order No.	Product Description
300 972-BA1000	35° outlet, without programming port
300 972-BB1000	35° outlet, with programming port
300 972-BA2000	90° outlet, without programming port, fast-wiring
300 972-BB2000	90° outlet, with programming port, fast-wiring
300 972-BA3000	180° outlet, without programming port
300 972-BA1200	90° outlet, without programming port
300 972-BB1200	90° outlet, with programming port
300 972-BA6000	Self-diagnosis 90° outlet, without programming port
300 972-BB6000	Self-diagnosis 90° outlet, with programming port
300 972-BA5000	90° outlet, without programming port, optical isolation
300 972-BA8000	Multi-Angle, without programming port
300 972-BB8000	Multi-Angle, with programming port
300 901-1BG10	90°Field-bus connector
300 901-1BB10	180°Field-bus connector
300 972-CA01	90°Outlet

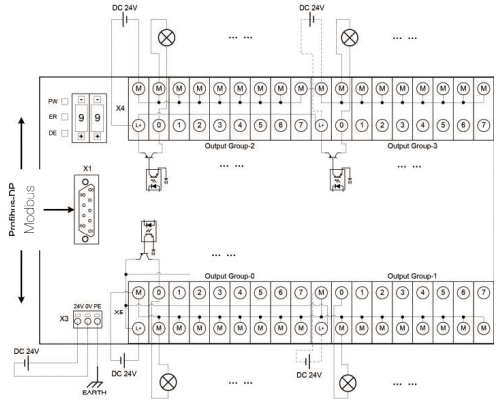
Fieldbus Cable

Order No.	Product Description
830-0EH10	Profibus DP Cable
830-3EH10	Profibus DP Flexible Cable
830-CA02	CANopen Cable
840-2AH10	EtherCAT/Profinet Cable

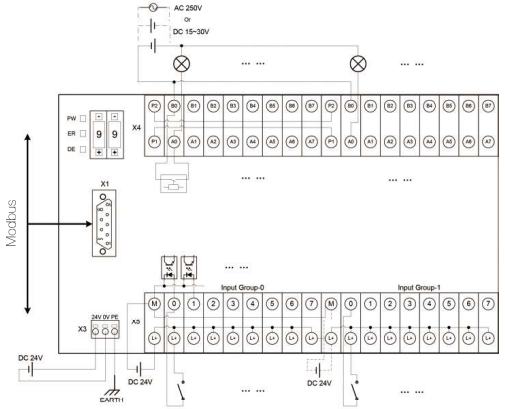
Wiring Diagram of Modbus Remote I/O



RT133-1BH02-MB



RT132-1BL02-DP



RT133-1PL02-MB

To the automation equipment away from the main control cabinet, signal transmission in long distance causes the signal attenuation and signal attenuation. However, it will not occur in the distributed Fieldbus I/O control system.

- Center process units in the main control room
- I/O distributed in every controlled devices
- **RT13X remote I/Os exchanging data with CPU**

Shell Specification
Unified shell dimension:155*105*55 (W/H/D,mm) ,IP20

Installation
Standard Din rail mounting, specification is TS35/7.5.