iModule

01

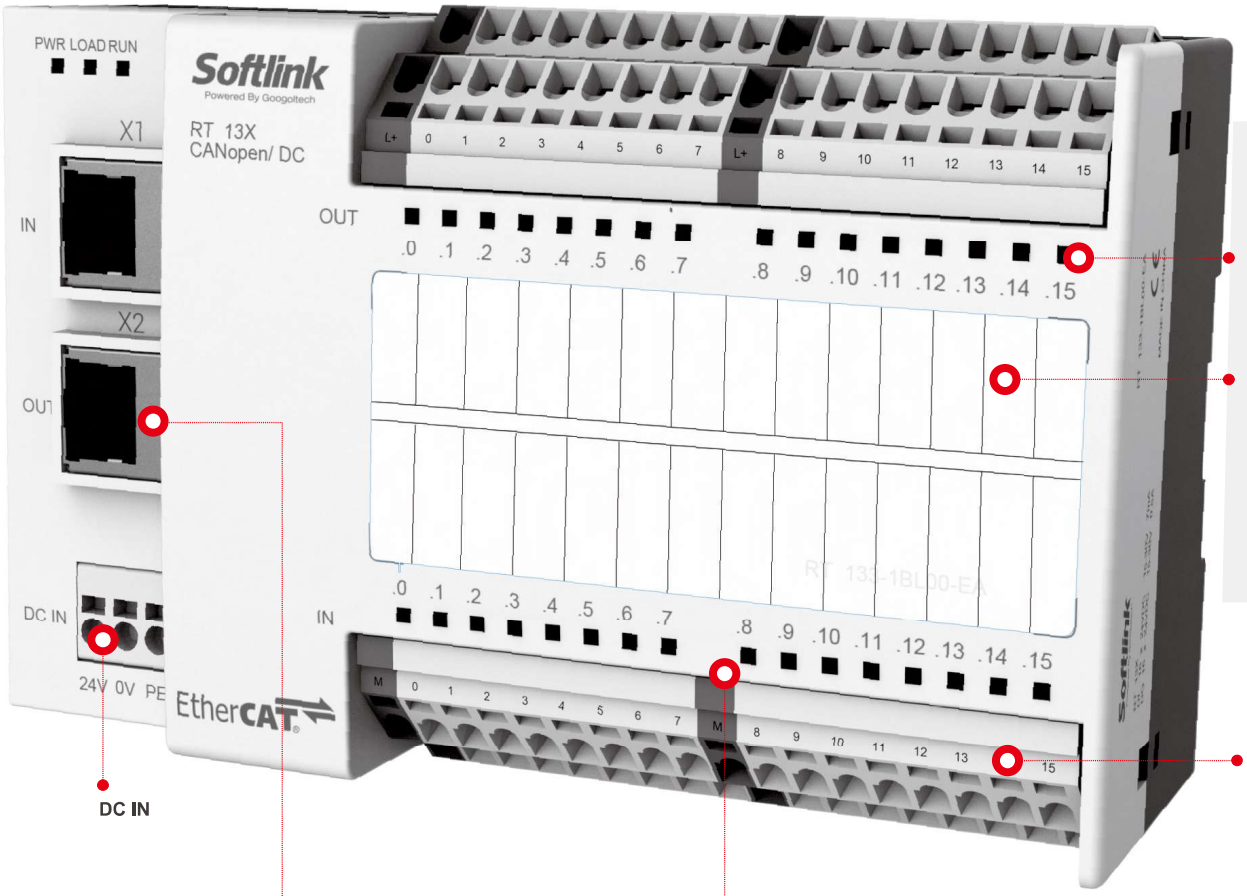
Distributed Fieldbus I/O

- 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

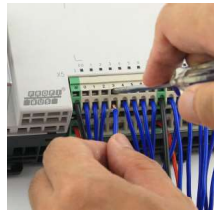
DI modules support PNP and NPN modes

Clear status and diagnosis monitoring

Clever labeling

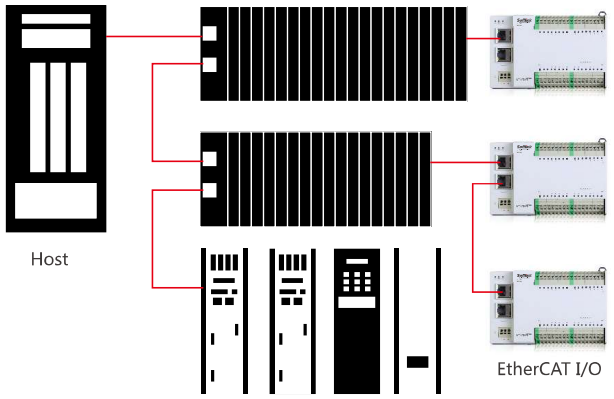
Compact design

Spce-saving compact dimension, two layers of spring terminals





EtherCAT®



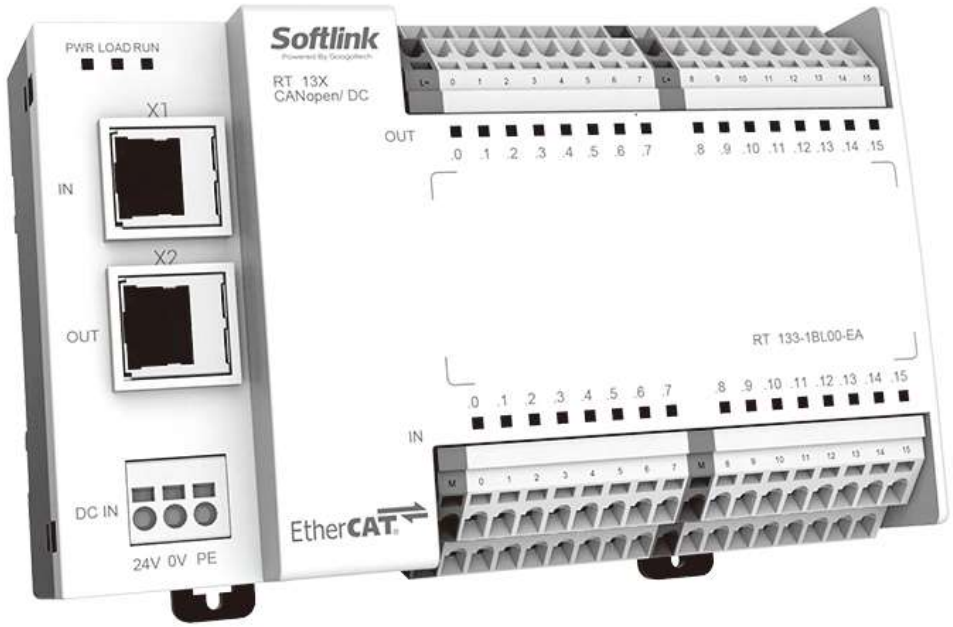
EtherCAT®

The real-time EtherCAT technology, widely used in machines and motion control applications. Outstanding performance, flexible topology and simple configuration characterise EtherCAT , the real-time Ethernet technology, which is the expansion of IEEE 802.3 as part of IEC 61158. EtherCAT sets new standards where conventional fieldbus systems reach their limits: 1,000 distributed I/Os in 30 µs, almost unlimited network size, and optimum vertical integration thanks to Ethernet and internet technologies. With EtherCAT, the costly Ethernet star topology can be replaced with a simple line or tree structure – no expensive infrastructure com ponents are required. All types of Ethernet devices can be integrated via a switch or switch port. Where other real-time Ethernet approaches require special master or scanner cards, EtherCAT manages with very cost-effective standard Ethernet interface cards.

EtherCAT

Order No.	Product Description	Order No.	Product Description
RT131-1BL00-EA	Digital 32 Input	RT133-1BL00-EA	Digital 16 Input /16 Output (Mosfet)
RT132-1BL00-EA	Digital 32 Output (Mosfet)	RT133-1PL00-EA	Digital 16 Input /16 Output (Relay)

Order No.	RT131-1BL00-EA	RT132-1BL00-EA	RT133-1BL00-EA	RT133-1PL00-EA
Type	Digital Input Module	Digital Output Module	Digital I/O Module	Digital I/O Module
Digital Input				
Number of inputs	32	0	16	16
Input filter	0.5ms	-	0.5ms	0.5ms
Nominal Input Voltage	24 V DC(-15%/+20%)	-	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
“1" signal voltage	15~30VDC,7mA	-	15~30VDC,7mA	15~30VDC,7mA
"0" signal voltage	0~5VDC	-	0~5VDC	0~5VDC
Port protect	Impact over Voltage protection	-	Impact over Voltage protection	Impact over Voltage protection
Digital Output				
Number of outputs	0	32	16	16
Output type	-	Mosfet	Mosfet	Relay
Nominal output voltage	-	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)	30 V DC/250V AC
“1" signal voltage	-	Open drain output	Open drain output	Dry contact short circuit
"0" signal voltage	-	Max:1.5VDC,10kΩ Load	Max:1.5VDC,10kΩ Load	Dry contact open circuit
Max. output current(per Ch.)	-	0.5A	0.5A	1A
Short circuit current(per Ch.)	-	1A	1A	2A
Max. output current(Total.)	-	8A*2	8A	16A
On-Resistance	-	0.3Ω(Type)/0.6Ω(Max)	0.3Ω(Type)/0.6Ω(Max)	≤50mΩ
Port protect	-	Overvoltage & overcurrent		-
Total error	-	-	-	-
Output settling time	-		-	-
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation (Bus/Field potential)	AC 500V	AC 500V	AC 500V	AC 500V
Protocol	EtherCAT	EtherCAT	EtherCAT	EtherCAT
Connector	2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45
Transmission rate	100 Mbps	100 Mbps	100 Mbps	100 Mbps
Address config	Automatic scanning	Automatic scanning	Automatic scanning	Automatic scanning
Distributed clocks	No	No	No	No
Installation	DIN Rail (TS35)	DIN Rail (TS35)	DIN Rail (TS35)	DIN Rail (TS35)
LED Indicate				
PWR	Green	Green	Green	Green
LOAD	Green	Green	Green	Green



Order No.	RT131-1BL00-EA	RT132-1BL00-EA	RT133-1BL00-EA	RT133-1PL00-EA
RUN	Green	Green	Green	Green
ERR	-	-	-	-
Digital I/O	Green	Green	Green	Green
Dimensions(W/H/D,mm)	155×105×55	155×105×55	155×105×55	155×105×55

Order No.	Product Description
RT133-3FC00-EA	Digital 8 Input/8 Output (Mosfet) , Analog 8 Input/4 Output
RT133-3FC10-EA	Digital 8 Input/8 Output (Mosfet) , Analog 8 Input/4 Output

Order No.	RT133-3FC00-EA	RT133-3FC10-EA
Type	Mixed Signal I/O Module	Mixed Signal I/O Module
Digital Input		
Number of inputs	8	8
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	8	8
Output Type	Mosfet	Mosfet
Nominal input voltage	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
"1" signal voltage	Open drain output	Open drain output
"0" signal voltage	Max:1.5VDC,10kΩ Load	Max:1.5VDC,10kΩ Load
Max. output current(per Ch.)	0.5A	0.5A
Short circuit current(per Ch.)	1A	1A
Max. output current(Total.)	4A	4A
On-Resistance	0.3Ω(Type)/0.6Ω(Max.)	0.3Ω(Type)/0.6Ω(Max.)
Port protect	overvoltage & overcurrent protection	overvoltage & overcurrent protection
Analog Input		
Number of inputs	8	8
Signal Type	Single-ended Voltage	Single-ended Current
Input impedance	＞200kΩ	249Ω
Range	0~5V,0~10V,±1.25V,±2.5V,±5V,±10V	4~20mA,0~20mA,+/-20mA
Resolutions	16bit	16bit
Total error	<±0.1%	<±0.1%
Conversion rate	100kSPS/ch	100kSPS/ch
Analog Output		
Number of inputs	4（Voltage or Current ）	4（Voltage or Current ）
Range	Voltage：0~5V，0~10V，+/−5V，+/−10V Current：4~20mA，0~20mA	Voltage：0~5V，0~10V，+/−5V，+/−10V Current：4~20mA，0~20mA
On load capacity	Voltage： ≥1kΩ ; Current： ≤500Ω	Voltage： ≥1kΩ ; Current： ≤500Ω

Order No.	RT133-3FC00-EA	RT133-3FC10-EA
Resolutions	16bit	16bit
Output error	<0.1 %	<0.1%
Output settling time	~ 100μs	~ 100 μs
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	EtherCAT	EtherCAT
Connector	2 x RJ45	2 x RJ45
Transmission rate	100 Mbps	100 Mbps
Address config	Automatic scanning	Automatic scanning
Distributed clocks	T.B.D.	T.B.D.
Installation	DIN Rail(TS35)	DIN Rail(TS35)
LED Indicate		
PWR	Green	Green
LOAD	Green	Green
RUN	-	-
ERR	Red	Red
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

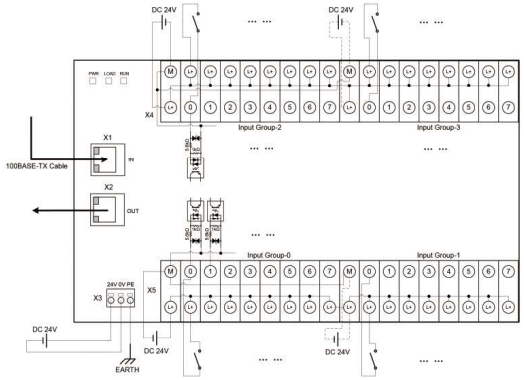
Fieldbus Connector

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

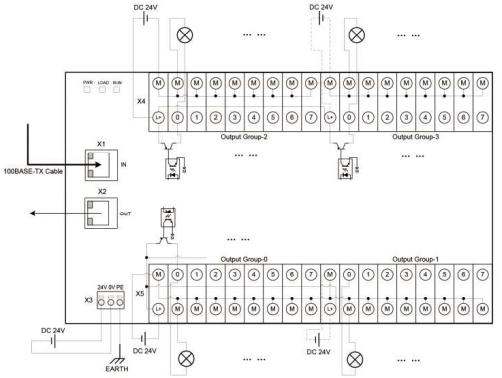
Fieldbus Cable

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

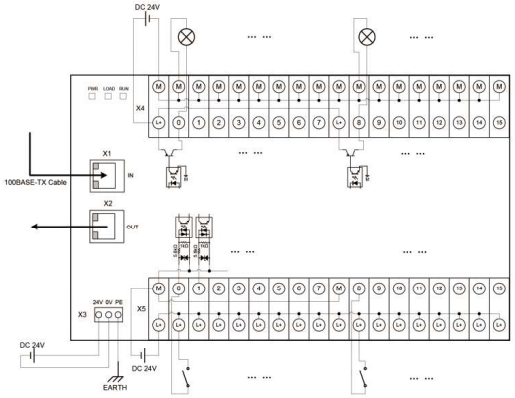
Wiring Diagram of EtherCAT Remote I/O



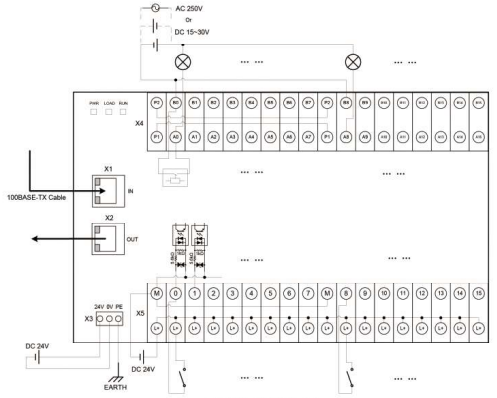
RT131-1BL00-EA



RT132-1BL00-EA



RT133-1BL00-EA



RT133-1PL00-EA