iModule

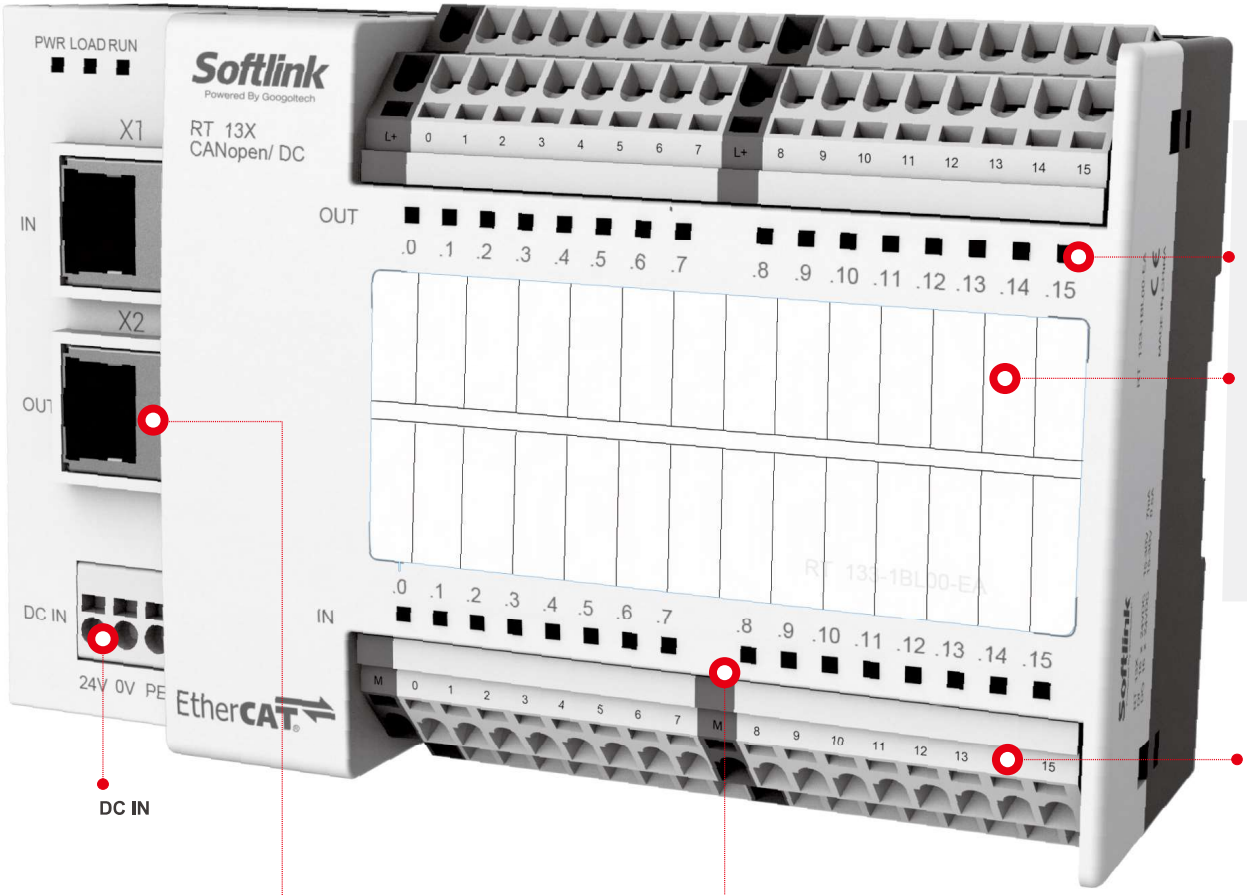
01

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

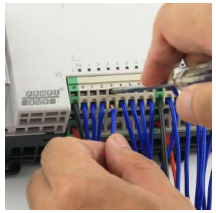
DI modules support PNP and NPN modes

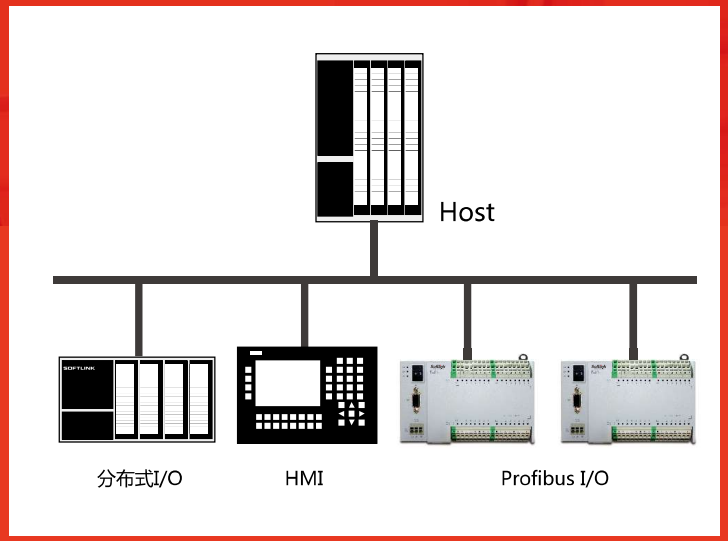
Clear status and diagnosis monitoring

Clever labeling

Compact design

Spce-saving compact dimension, two layers of spring terminals





Profibus is also a popular modern industry Fieldbus developed on RS485, according to the ISO / OSI reference model standard, becoming a German standard when published in DIN19245 in April 1991. With the maximum transfer rate of 12Mbps / 100 meters and the maximum transmission distance of 1200 meters /9.6kbps, the Profibus network's size up to 126 nodes, the network length 100-1200m.

iModule series of Profibus I/O enables fast connection to Profibus bus network, via acquiring signals and communicating with the master station, to complete a reliable control of fieldbus devices.

Order No.	Product Description
RT131-1BL02-DP	Digital 32 Input
RT132-1BL02-DP	Digital 32 Output（Mosfet）

Order No.	Product Description
RT133-1BH02-DP	Digital 8 Input/8 Output（Mosfet）
RT133-1BL02-DP	Digital 16 Input/16 Output（Mosfet）

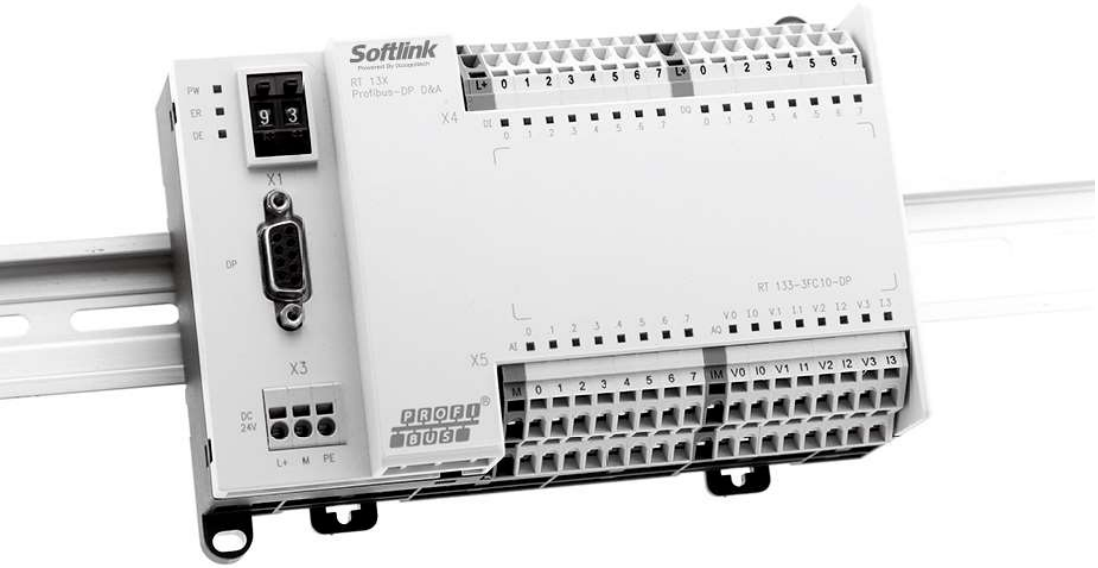
Order No.	RT131-1BL02-DP	RT132-1BL02-DP
Type	Digital Input Module	Digital Output Module
Digital Input		
Number of inputs	32	0
Input filter	0.5ms	-
Nominal input voltage	24 V DC(-15%/+20%)	-
"1 " signal voltage	15~30VDC,7mA	-
"0 " signal voltage	0~5VDC	-
Port protect	Impact over voltage protection	
Digital Output		
Number of inputs	0	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
Port protect	-	Overvoltage & overcurrent protection
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.)
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Profibus DP V0	Profibus DP V0
Connector	DB9Female	DB9Female
Transmission rate	9.6kbps~12Mbps, adaptive	-
Address config	00~99(config by 2-bit dial switch)	
Installation	DIN Rail(TS35)	DIN Rail(TS35)
LED Indicate		
PWR	Green	Green
ERR	Red	Red
RUN	Orange	Orange
Digital I/O	Green	Green
Dimensions(W/H/D,mm)	105×55×155	105×55×155

Order No.	RT133-1BH02-DP	RT133-1BL02-DP
Type	Digital I/O Module	Digital I/O Module
Digital Input		
Number of inputs	8	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		
Digital Output		
Number of inputs	8	16
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
Port protect		
Max. output current(per Ch.)	0.5A	0.5A
Short circuit current(per Ch.)	1A	1A
Max. output current(Total.)	8A	8A
On-Resistance	0.3Ω(Type)/0.6Ω(Max.)	0.3Ω(Type)/0.6Ω(Max.)
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Profibus DP V0	Profibus DP V0
Connector	DB9Female	DB9Female
Transmission rate	9.6kbps~12Mbps, adaptive	
Address config	00~99(config by 2-bit dial switch)	
Installation	DIN Rail(TS35)	DIN Rail(TS35)
LED Indicate		
PWR	Green	Green
ERR	Red	Red
RUN	Orange	Orange
Digital I/O	Green	Green
Dimensions(W/H/D,mm)	105×55×155	105×55×155

Order No.	Product Description
RT133-1PL02-DP	Digital 16 Input/ 16 Output（Relay）
RT133-3FC00-DP	Digital 8 Input/ 8 Output（Mosfet），Analog 8 Input/ 4 Output
RT133-3FC10-DP	Digital 8 Input/ 8 Output（Mosfet），Analog 8 Input/ 4 Output
RT133-3KB00-DP	Digital 16 Input/ 8 Output（Mosfet），Analog 4 Input

Order No.	RT133-1PL02-DP	RT133-3FC00-DP
Type	Digital I/O Module	Mixed Signal I/O Module
Digital Input		
Number of inputs	16	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	-
"0" signal voltage	0~5VDC	-
Port protect	Impact over voltage protection	Impact over voltage protection
Digital Output		
Number of inputs	16	8
Output Type	Relay	Mosfet
Nominal input voltage	30 V DC/250V AC	24 V DC(-15%/+20%)
"1" signal voltage	Dry contact short circuit	Open drain output
"0" signal voltage	Dry contact open circuit	Max:1.5VDC,10kΩ Load
Max. output current(per Ch.)	-	Overvoltage & overcurrent protection
Short circuit current(per Ch.)	1A	0.5A
Max. output current(Total.)	2A	1A
On-Resistance	16A	8A
Port protect	≤50mΩ	0.3Ω(Type)/0.6Ω(Max.)
Analog Input		
Number of inputs	-	8
Signal Type	-	Single-ended voltage
Input impedance	-	＞200kΩ
Range	-	0~5V,0~10V,±1.25V,±2.5V,±5V,±10V
Resolutions	-	16bit
Total error	-	＜±0.1%
Conversion rate	-	100kSPS/ch
Software filter	-	No
Analog Output		
Number of inputs	-	4
Output Range	-	0~10V or 0~20mA
Load	-	＞5kΩ

Order No.	RT133-3FC10-DP	RT133-3KB00-DP
Type	Mixed Signal I/OModule	Mixed Signal I/O Module
Digital Input		
Number of inputs	8	16
Input filter	0.5ms	0.5ms
Nominal input voltage	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
"1" signal voltage	-	-
"0" signal voltage	-	-
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.)	8A	8A
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	4
Signal Type	Current	Single-ended voltage
Input impedance	＞200kΩ	＞200kΩ
Range	0~20mA,±20mA	0~5V,0~10V,±5V,±10V,
Resolutions	16bit	12bit
Total error	＜±0.1%	＜±0.5%
Conversion rate	100kSPS/ch	100kSPS/ch
Software filter	No	No
Analog Output		
Number of inputs	4	-
Output Range	0~10V or 0~20mA	-
Load	＞5kΩ	-



Order No.	RT133-1PL02-DP	RT133-3FC00-DP
Resolutions	-	16bit
Output error	-	<0.1%
Output settling time	-	~100 μs
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Profibus DP V0	Profibus DP V0
Connector	DB9Female	DB9Female
Transmission rate	9.6kbps~12Mbps, adaptive	9.6kbps~12Mbps, adaptive
Address config	00~99(config by 2-bit dial switch)	00~99(config by 2-bit dial switch)
Installation	DIN Rail(TS35)	DIN Rail(TS35)
LED Indicate		
PWR	Green	Green
ERR	Red	Red
RUN	Orange	Orange
Digital I/O	Green	Green
Dimensions(W/H/D,mm)	105×55×155	155×105×55

Order No.	RT133-3FC10-DP	RT133-3KB00-DP
Resolutions	16bit	-
Output error	<0.1%	-
Output settling time	~100μs	-
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Profibus DP V0	Profibus DP V0
Connector	DB9Female	DB9Female
Transmission rate	9.6kbps~12Mbps, adaptive	9.6kbps~12Mbps, adaptive
Address config	00~99(config by 2-bit dial switch)	00~99(config by 2-bit dial switch)
Installation	DIN Rail(TS35)	DIN Rail(TS35)
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

Order No.	Product Description
RT133-3HC10-DP	Digital 8 Input/ 8 Output （Mosfet）, Analog 8 Input/ 4 Output
RT133-3RJ00-DP	Digital 8 Input/ 8 Output （Mosfet）, 4 Thermal Resistance

Order No.	RT133-3HC10-DP	RT133-3RJ00-DP
Type	Mixed Signal I/O Module	Temperature 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	-	-
"0" signal voltage	-	-
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.)	8A	8A
On-Resistance	0.3Ω(Type)/0.6Ω(Max.)	0.3Ω(Type)/0.6Ω(Max.)
Port protect	Overvoltage & overcurrent protection	
Analog Input		
Number of inputs	8	4
SignalType	Current	Thermal resistance,PT100,PT200,PT500,PT1000,Ni100,Ni120,Ni1000
Input impedance	＞200kΩ	-
Range	0~20mA,±20mA	100Ω...200kΩ
Resolutions	12bit	24bit,0.001℃
Total error	＜±0.5%	＜±0.05%Full scale
Conversion rate	100kSPS/ch	250mS/4ch
Software filter	No	0x,1x,2x,3x,4xYes
Others	-	50/60Hz filter, breakwire instructions
Analog Output		
Number of inputs	4	-
Output Range	0~10V or 0~20mA	-

Order No.	RT133-3HC10-DP	RT133-3RJ00-DP
Load	＞5kΩ	-
Resolutions	12bit	-
Output error	<0.5%	-
Output settling time	~100μs	-
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Profibus DP V0	Profibus DP V0
Connector	DB9Female	DB9Female
Transmission rate	9.6kbps~12Mbps, adaptive	9.6kbps~12Mbps, adaptive
Address config	00~99(config by 2-bit dial switch)	00~99(config by 2-bit dial switch)
Installation	DIN Rail(TS35)	DIN Rail(TS35)
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

Order No.	Product Description
RT133-4TJ00-DP	Digital8 Input/8 Output (Mosfet) , 4 Thermocouple
RT131-4RH00-DP	16Thermal Resistance
RT131-4TH00-DP	16 Thermocouple

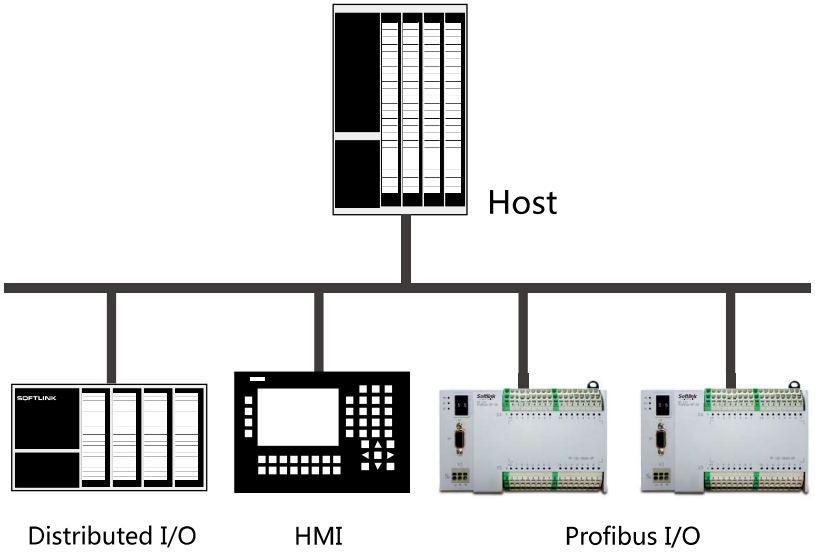
Order No.	RT133-4TJ00-DP	RT131-4RH00-DP
Type	Temperature module	Temperature module
Digital Input		
Number of Inputs	8	-
Input filter	0.5ms	-
Nominal input voltage	24 V DC(-15%/+20%)	-
"1" signal voltage		-
"0" signal voltage		-
Port protect	Impact over voltage protection	-
Digital Output		
Number of Inputs	8	-
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	overvoltage & overcurrent protection	-
Analog Input		
Number of Inputs	4	16
Signal Type	All type of thermocouple sensor	RTD,PT100,PT200,PT500,PT1000,Ni100,Ni120,Ni1000
Input impedance	＞100kΩ	-
Range	±100mV	100Ω...200kΩ
Resolutions	24bit,0.001℃	24bit, 0.001℃
Total error	＜±0.05%Full scale	＜±0.05%Full scale
Conversion rate	250mS/4ch	1000mS/8ch
Software filter	0x,1x,2x,3x,4xadjustable	0x,1x,2x,3x,4xadjustable
Others	50/60Hz filter,cold junction compensation	50/60Hz filter
Voltage supply	24 V DC(-15%/+20%)	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V	AC 500V
Protocol	Profibus DP V0	Profibus DP V0

Order No.	Product Description
RT133-4TJ00-DP	Digital8 Input/8 Output (Mosfet) , 4 Thermocouple
RT131-4RH00-DP	16Thermal Resistance
RT131-4TH00-DP	16 Thermocouple

Order No.	RT131-4TH00-DP
Type	Temperature module
Digital Input	
Number of Inputs	-
Input filter	-
Nominal input voltage	-
"1" signal voltage	-
"0" signal voltage	-
Port protect	-
DigitalOutput	
Number of Inputs	-
Output Type	-
Nominal input voltage	-
"1" signal voltage	-
"0" signal voltage	-
Max. output current(per Ch.)	-
Short circuit current(per Ch.)	-
Max. output current(Total.)	-
On-Resistance	-
Port protect	-
Analog Input	
Number of Inputs	16
Signal Type	All type of thermocouple sensor
Input impedance	＞100kΩ
Range	±100mV
Resolutions	24bit, 0.001℃
Total error	＜±0.05%Full scale
Conversion rate	1000mS/8ch
Software filter	0x,1x,2x,3x,4xadjustable
Others	50/60Hz filter,cold junction compensation
Voltage supply	24 V DC(-15%/+20%)
Electrical isolation(Bus/Field potential)	AC 500V
Protocol	Profibus DP V0

Order No.	RT133-4TJ00-DP	RT131-4RH00-DP
Connector	DB9Female	DB9Female
Communication Rate	9.6kbps~12Mbps, adaptive	9.6kbps~12Mbps, adaptive
Address config	00~99(config by 2-bit dial switch)	00~99(config by 2-bit dial switch)
Fixed method	DIN Rail(TS35)	DIN Rail(TS35)
LED Indicate		
PWR	Green	Green
ERR	Red	Red
DE Data exchage	Orange	Orange
Digital I/O	Green	Green
Dimensions(W/H/D,mm)	155×105×55	155×105×55

Order No.	RT131-4TH00-DP
Connector	DB9Female
Communication Rate	9.6kbps~12Mbps, adaptive
Address config	00~99(config by 2-bit dial switch)
Fixed method	DIN Rail(TS35)
PWR	Green
ERR	Red
DE Data exchage	Orange
Digital I/O	Green
Dimensions(W/H/D,mm)	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

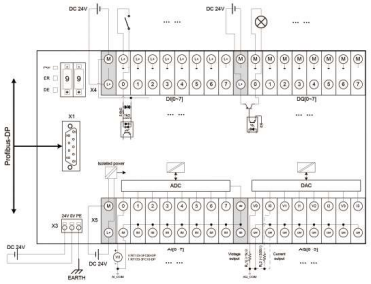
Fieldbus Connector

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

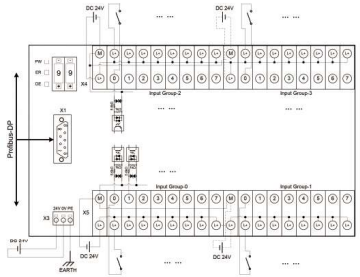
Fieldbus Cable

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 PROFIBUS Remote I/O



RT133-3FC00_10-DP



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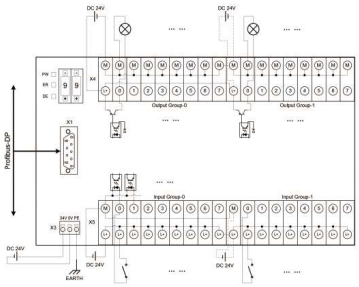

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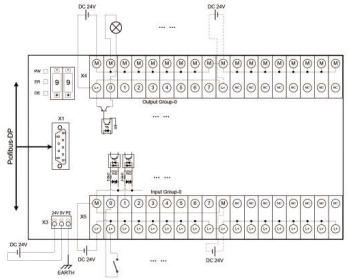

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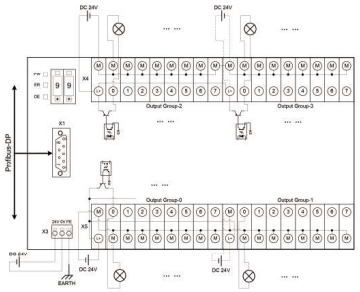
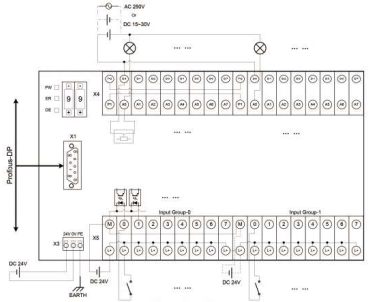


RT132-1BL02-DP



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