

Accessories



Switching Test Box

- Short circuit protection, sleeping mode, silent mode
- 2500mAH battery capacity with mobile power function

P.N-02



Analog Test Box

- Analog current, voltage and switching modes selectable
- Measurement accuracy up to 0.4%
- 4000mAH high-capacity battery, long battery life, can be used as a rechargeable battery

P.N-03



Connecting Cable

- The fastened mechanical connection guarantees the product's seismic performance
- Part of the products support IO-Link/Ethercat/Profibus standard
- Can be customized to anti-slag, oil-proof, IP69K, with LED lights, shielding etc.

P.N-05



NPN-PNP Signal Conversion Cable

- Small size, easy wiring
- NPN to PNP, PNP to NPN are available
- Support NO and NC output

P.N-12

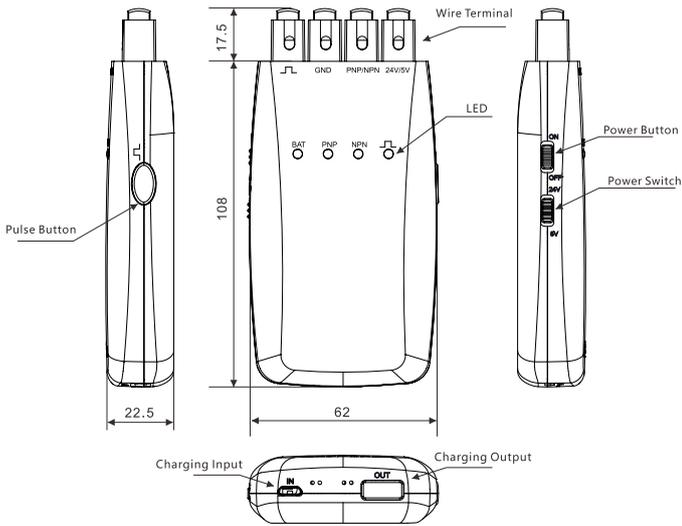


Appearance		
Detection type	NPN/PNP	Auto recognition
Output voltage	4.8~5.2V	5V Output
	19.0~24.0V	24V Output
Output current	≤0.4A	5V Output
	≤0.15A	24V Output
Battery capacity	2500mAh	
Theoretical working time	10h	24V Output 15mA
Charging time	6h	
Output voltage for charging external device	4.8~5.2V	Portable Power Bank
Operating temperature	-10°C~+45°C	
Weight	145g	
Size	125*62*23mm	
Other functions	Mute Mode, Sleep Mode, Output Short-circuit Protection	
Model No.	WT-2	

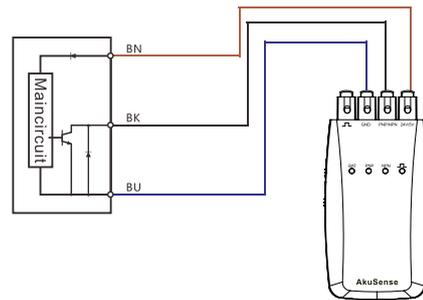
Dimensions

Circuit diagram

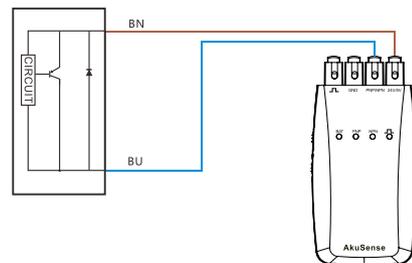
Unit: mm



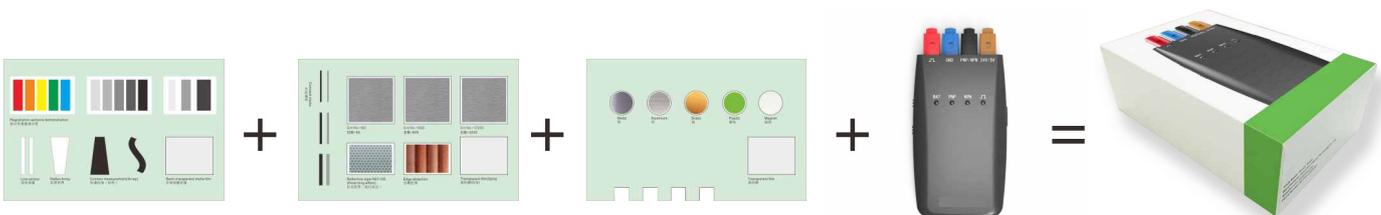
3-wire:



2-wire:



Accessories



- Fiber Optic
- Slot Sensors
- Photoelectric
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Accessories**

Guidance

- Sensor tester kit
- Switch Type**
- Sensor tester kit

Connecting Cable

- M8
- M12
- Other

Signal conversion Cable

Signal conversion Cable

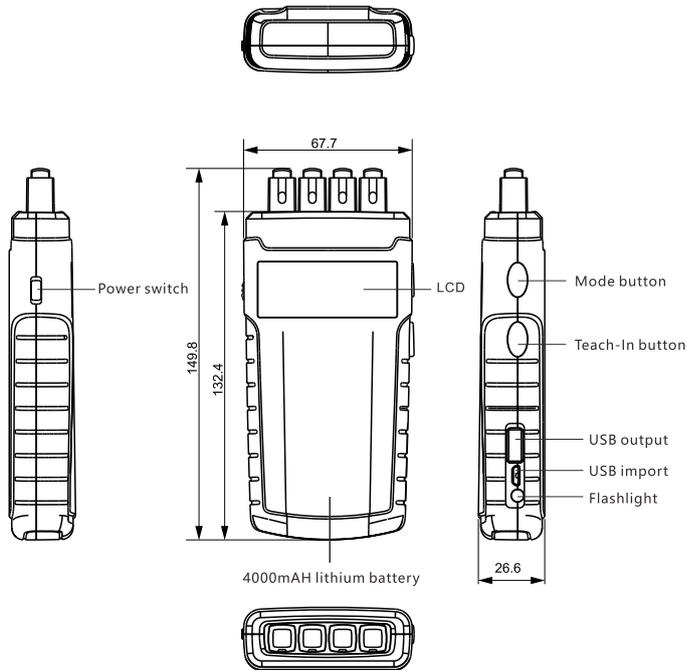
Analog Type



Appearance		
Detection type	NPN/PNP	Auto recognition
Measuring range	0~10V	Voltage mode
	0~20mA	Current mode
Measurement accuracy	≤0.04V (Full range)	Voltage mode
	≤0.04mA (Full range)	Current mode
Scan cycle	22ms	Digital mode
	140ms	Current mode
Output voltage	19V~24V	Brown Terminal Output
	4.8V~5V	USB Output
Output current	≤160mA	Brown Terminal Output
	≤500mA	USB Output
ADC accuracy	15-bit	
Battery capacity	4000mAh	
Charging time	9h	
Other functions	Power over current protection, sleep function, mute function, flashlight	
Working temperature	-10°C~+45°C	
Weight	200g	
Model No.	WD-1	

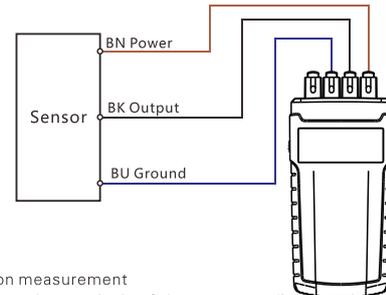
Dimensions

Unit: mm



Circuit diagram

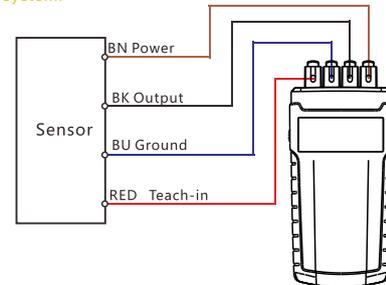
3-wire system:



Common measurement

- 1 Connect the terminals of the corresponding functions and turn on the power.
2. Select the corresponding measurement mode (voltage, current, digital).
3. The measurement results are displayed on the screen.

4-wire system:



Teach-in button

- 1 Connect the corresponding function terminals and turn on the power
- 2 Press the Teach-in button, the screen Teach-in area displays ON, then the red terminal will output high level, release the Teach-in button, the screen Teach-in area displays OFF, then the red terminal will output low level
- 3 Select the corresponding measurement mode (voltage V, current I, switch D)
- 4 The measurement result is displayed on the screen

1.Mode switching

Press the MODE button shortly to switch the test box in three modes: current (I), voltage (V), and switch (D). Customer can select the correct mode and connection according to the sensor type,the test result will be displayed on the screen, and the test box will store the current test mode, and will restore the previous state when it is restarted.

2.Battery

Battery status will be displayed on the upper right corner. The number of grids represents the remaining power. Grids flashing indicates that the power is insufficient and needs to be charged. The flashing during charging indicates the charging progress, when the charging is done, the whole grids will flash.

3.Sleeping mode

If the test box does not operate for more than 10 minutes, the test box automatically enters the sleeping state, the 24V power supply and the screen will be turned off, press the Mode button or the Teach-IN button, and the test box returns to the operable state.

4.Powerbank mode

Press the mode button in the off state, turn on the power button, the buzzer will sound twice, the sleep of the test box function will be invalid, the function has no memory, and the sleep function is enabled by default when it is turned on again.

5.Mute mode

Press and hold Teach-in for more than 6s, the buzzer will sound once, and the test box has entered silent mode. In the same operation, the buzzer will sound twice to indicate that the mute mode has been excited, and the test box will store the state, and will remain in the last state when it is turned on again.

6. Teach-in function

Press the teach button, the Teach-in (red) terminal will output a high level voltage, and the voltage logic will match the brown terminal voltage. When the button is released, the Teach-in (red) terminal will output a low level voltage, and the LCD will display the current Teach-in logic state.

7.Flashlight function

Press and hold the mode button for more than 2s, the light will be on, and the same operation can turn off the light.

8.Short circuit protection

When the output current is too high, short circuit protection will be inspired, and the screen will display 'SCP' during short circuit protection. After the short circuit condition is withdrawn, the test box will automatically return to normal state.

Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
Vision
Code Readers
Vibration
Temperature

Accessories**Guidance****Sensor tester kit****Switch Type**

Sensor tester kit

Connecting Cable

M8

M12

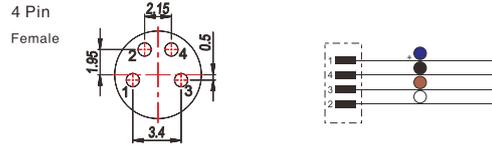
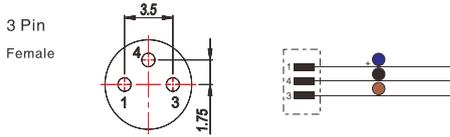
Other

Signal conversion Cable

Signal conversion Cable

Signal conversion Cable

M8 Cables



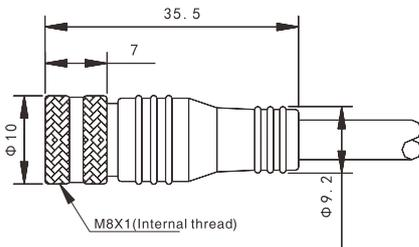
Type

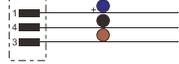
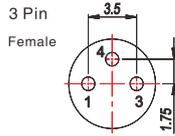
Female, straight	3 Pin		4 Pin	
	2m cable	5m cable	2m cable	5m cable
PVC	CA08-S3F2C	CA08-S3F5C	CA08-S4F2C	CA08-S4F5C
PUR	CA08-S3F2R	CA08-S3F5R	CA08-S4F2R	CA08-S4F5R

Specifications

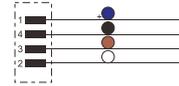
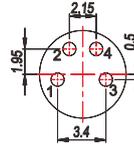
Type	M8 straight cable	Insulation resistance	≥100MΩ
Coding type	A coding	Cable Material	PVC/PUR
Rated voltage	60V(3Pin)/30V(4Pin)	Cable length	Standard 2 or 5 m, customizable
Rated current	3A	Cores	0.25mm ²
Pin Material	Gold-plated phosphor copper	Degree of protection	IP67/68
Coupling screw	Nickel plated brass	Operating temperature	-25~+ 85°C

Dimensions(Unit:mm)





4 Pin Female



Type

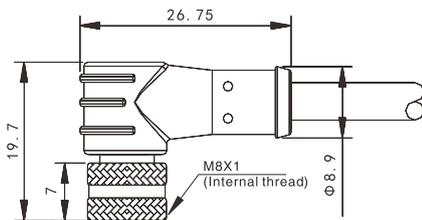
Type	3 Pin		4 Pin	
	2m cable	5m cable	2m cable	5m cable
Female , Right angle				
PVC	CA08-R3F2C	CA08-R3F5C	CA08-R4F2C	CA08-R4F5C
PUR	CA08-R3F2R	CA08-R3F5R	CA08-R4F2R	CA08-R4F5R

Specifications

Type	M8 Right angle Cable
Coding type	A coding
Rated voltage	60V(3Pin)/30V(4Pin)
Rated current	3A
Pin Material	Gold-plated phosphor copper
Coupling screw	Nickel plated brass

Insulation resistance	≥100MΩ
Cable Material	PVC/PUR
Cable length	Standard 2 or 5 m, customizable
Cores	0.25mm ²
Degree of protection	IP67/68
Operating temperature	-25~+ 85°C

Dimensions(Unit:mm)



- Fiber Optic
- Slot Sensors
- Photoelectric
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature

Accessories

Guidance

Sensor tester kit

- Switch Type
- Sensor tester kit

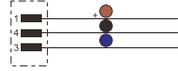
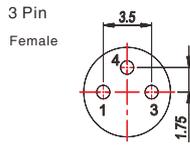
Connecting Cable

- M8
- M12
- Other

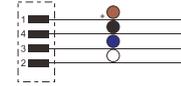
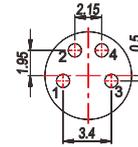
Signal conversion Cable

- Signal conversion Cable

M8 Cables



4 Pin Female



Type

Female , Right angle, LED, PNP

3 Pin

2m cable

5m cable

4 Pin

2m cable

5m cable

PVC	CA08-R3F2C-LP	CA08-R3F5C-LP	CA08-R4F2C-LP	CA08-R4F5C-LP
PUR	CA08-R3F2R-LP	CA08-R3F5R-LP	CA08-R4F2R-LP	CA08-R4F5R-LP

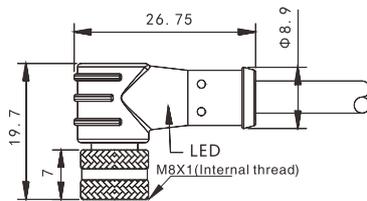
Specifications

Type	Cable with LED
Coding type	A coding
Rated voltage	60V(3Pin)/30V(4Pin)
Rated current	3A
Pin Material	Gold-plated phosphor copper
Coupling screw	Nickel plated brass

Insulation resistance	≥100MΩ
Cable Material	PVC/PUR
Cable length	Standard 2 or 5 m, customizable
Cores	0.25mm ²
Degree of protection	IP67/68
Operating temperature	-25~+ 85°C

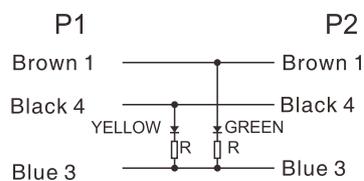
Dimensions(Unit:mm)

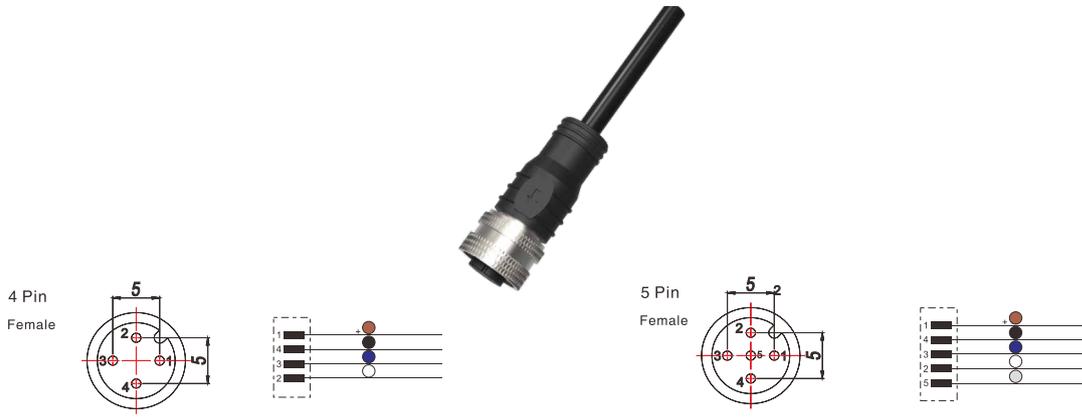
Female , Right angle, LED, PNP



PNP

WIRE LIST





Type

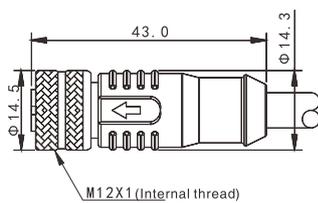
	4 Pin		5 Pin	
	2m cable	5m cable	2m cable	5m cable
Female, Straight, Shielded				
PVC	CA12-S4F2C-S	CA12-S4F5C-S	CA12-S5F2C-5-S	CA12-S5F5C-5-S
PUR	CA12-S4F2R-S	CA12-S4F5R-S	CA12-S5F2R-5-S	CA12-S5F5R-5-S
Female, Straight				
PVC	CA12-S4F2C	CA12-S4F5C	CA12-S5F2C-5	CA12-S5F5C-5
PUR	CA12-S4F2R	CA12-S4F5R	CA12-S5F2R-5	CA12-S5F5R-5

Specifications

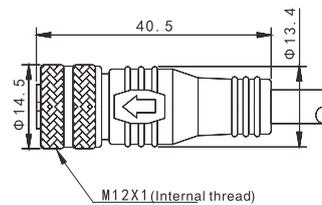
Type	M12 Straight Cable	Insulation resistance	≥100MΩ
Coding type	A coding	Cable Material	PVC/PUR
Rated voltage	250V	Cable length	Standard 2 or 5 m, customizable
Rated current	4A	Cores	0.34mm ²
Pin Material	Gold-plated phosphor copper	Degree of protection	IP67/68
Coupling screw	Nickel plated brass	Operating temperature	-25~+85°C

Dimensions(Unit:mm)

M12 Female, Straight, Shielded



M12 Female, Straight



- Fiber Optic
- Slot Sensors
- Photoelectric
- Laser
- Proximity
- Displacement
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- Vision
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- Vibration
- Temperature
- Accessories**

Guidance

- Sensor tester kit
- Switch Type
- Sensor tester kit

Connecting Cable

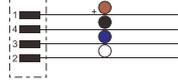
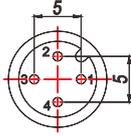
- M8
- M12**
- Other

- Signal conversion Cable
- Signal conversion Cable

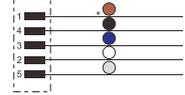
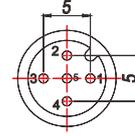
M12 Cables



4 Pin
Female



5 Pin
Female



Type

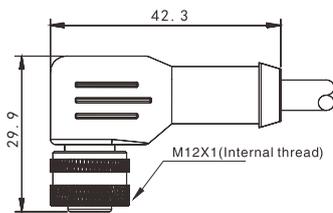
Type	4 Pin		5 Pin		
	Female, Right angle	2m cable	5m cable	2m cable	5m cable
PVC		CA12-R4F2C	CA12-R4F5C	CA12-R5F2C-5	CA12-R5F5C-5
PUR		CA12-R4F2R	CA12-R4F5R	CA12-R5F2R-5	CA12-R5F5R-5

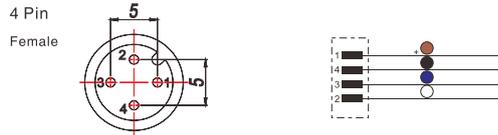
Specifications

Type	M12 Straight, Shielded	Insulation resistance	≥100MΩ
Coding type	A coding	Cable Material	PVC/PUR
Rated voltage	250V	Cable length	Standard 2 or 5 m, customizable
Rated current	4A	Cores	0.34mm ²
Pin Material	Gold-plated phosphor copper	Degree of protection	IP67/68
Coupling screw	Nickel plated brass	Operating temperature	-25~+85°C

Dimensions(Unit:mm)

M12 Female, Right angle





Type

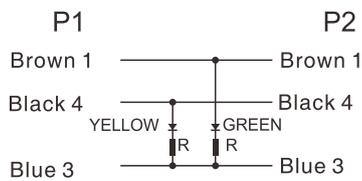
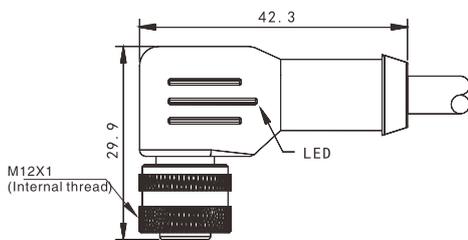
Female, Right angle, LED	4 Pin	
	2m cable	5m cable
PNP	CA12-R4F2C-LP	CA12-R4F5C-LP
NPN	CA12-R4F2C-LN	CA12-R4F5C-LN

Specifications

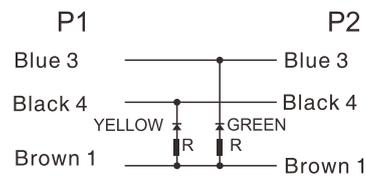
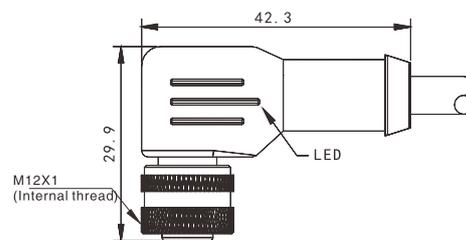
Type	M12 Female, Right angle, LED	Insulation resistance	≥100MΩ
Coding type	A coding	Cable Material	PVC/PUR
Rated voltage	250V	Cable length	Standard 2 or 5 m, customizable
Rated current	4A	Cores	0.34mm ²
Pin Material	Gold-plated phosphor copper	Degree of protection	IP67/68
Coupling screw	Nickel plated brass	Operating temperature	-25°C~+85°C

Dimensions (Unit: mm)

M12 Female, Right angle, LED, PNP



M12 Female, Right angle, LED, NPN



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Guidance

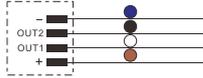
- Sensor tester kit
- Switch Type
- Sensor tester kit

Connecting Cable

- M8
- M12**
- Other

- Signal conversion Cable
- Signal conversion Cable

Other



Type

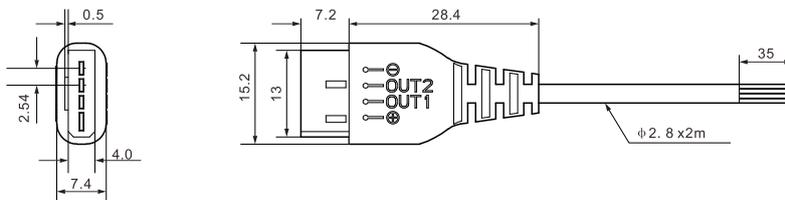
ME-1007

Specifications

Insertion force	<18N
Pull-out force(cover retention)	25N
Cover material	PVC
Contact point	Phosphor bronze

Dimensions(Unit:mm)

ME-1007



Fiber Optic

Slot Sensors

Photoelectric

Laser

Proximity

Displacement

Magnetic

Contact

Area

Ultrasonic

Vision

Code Readers

Vibration

Temperature

Accessories

Guidance

Sensor tester kit

Switch Type

Sensor tester kit

Connecting Cable

M8

M12

Other

Signal conversion Cable

Signal conversion Cable



Type

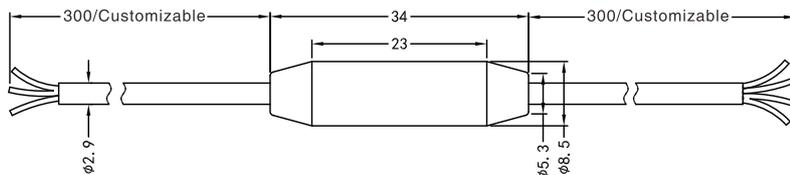
NPN converting to PNP	CTC-N2P
PNP converting to NPN	CTC-P2N

Specifications

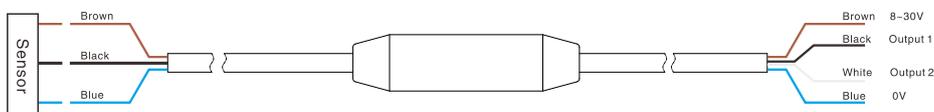
Protective circuit	Reverse polarity protection
Operating temperature	-20°C~+60°C
Storage temperature	-40°C~+85°C
Input voltage	8~30V

Load current	≤150mA
Voltage drop	≤1V
Switch output	≤5KHz

Dimensions(Unit:mm)



Wiring diagram



Sensor's output state before converting	Corresponding output state after converting
NO	Black: NO White: NC
NC	Black: NC White: NO

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