

# Ультразвуковые датчики светоотражающая серия UR18

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Ultrasonic sensor **UR18-CC50** series

**Feature Description**

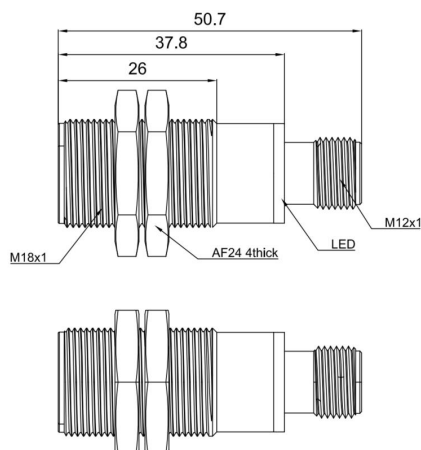
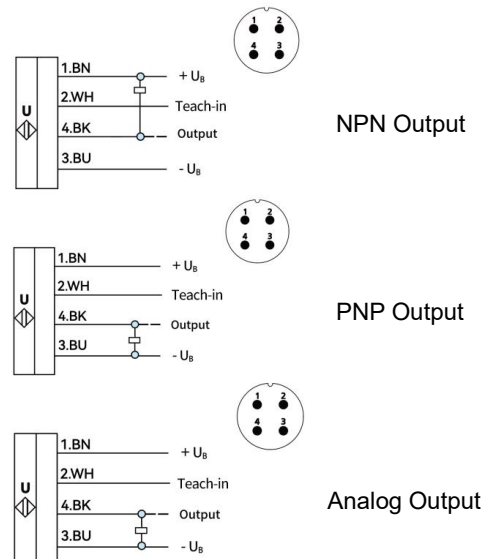
- ◆ M18 installation threaded sleeve, with a minimum length of 40mm
- ◆ Small blind spot and sound cone, suitable for close range fine detection
- ◆ 1 NPN or PNP switch output
- ◆ Analog voltage output 0-5/10V or analog current output 4-20mA
- ◆ Output can be changed through serial port upgrade
- ◆ Setting detection distance through teach-in lines
- ◆ Temperature compensation


**Model specifications**

NPN	NO/NC	UR18-CC50DNB-E2	PNP	NO/NC	UR18-CC50DPB-E2
NPN	Hysteresis mode	UR18-CC50DNH-E2	PNP	Hysteresis mode	UR18-CC50DPH-E2
0-5V	Analog output	UR18-CC50DU5-E2	4-20mA	Analog output	UR18-CC50DI-E2
0-10V	Analog output	UR18-CC50DU10-E2			

**Specifications**

Sensing range	40-500mm	Protection circuit	Reverse connection, digital overvoltage protection
Blind area	0-40mm	Output indication	Red LED: Always on, no target detected Flashing, no target detected in teach-in state
Resolution ratio	0.17mm		Yellow LED: Always on, detected target within A1-A2 range Flashing, target detected in teach-in state
Repeat accuracy	± 0.15% of full scale value	Input type	With teach-in function
Absolute accuracy	± 1% (temperature drift compensation)	Ambient temperature	-25°C...70°C (248-343K)
Response time	50ms	Storage temperature	-40°C...85°C (233-358K)
Switch hysteresis	2mm	Output characteristics	Support serial port upgrade and change the output type
Switching frequency	20Hz	Material	Copper nickel plating, glass bead filled epoxy resin
Power on delay	<500ms	Protection degree	IP67
Working voltage	15...30VDC	Connection	4 pin M12 connector
No-load current	≤25mA		
Load resistance	U/1k Ohm		

**Dimension**

**Wiring diagram**


Ultrasonic sensor **UR18-CC35** series



**Feature Description**

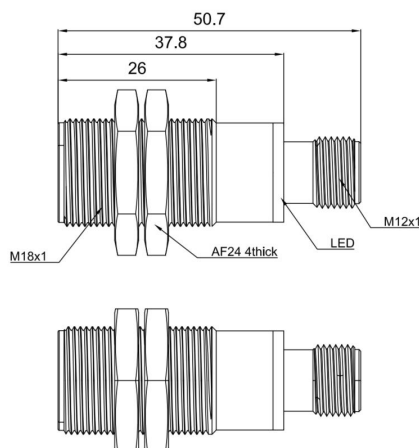
- ◆ M18 installation threaded sleeve, with a minimum length of 40mm
- ◆ Small blind spot and sound cone, suitable for close range fine detection
- ◆ 1 NPN or PNP switch output
- ◆ Analog voltage output 0-5/10V or analog current output 4-20mA
- ◆ Output can be changed through serial port upgrade
- ◆ Setting detection distance through teach-in lines
- ◆ Temperature compensation



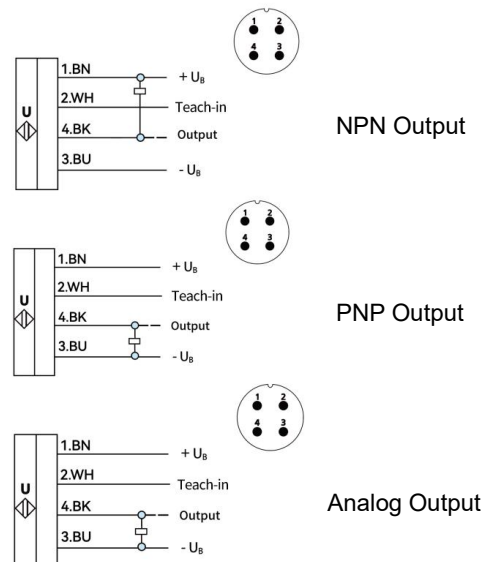
Model specifications					
NPN	NO/NC	UR18-CC35DNB-E2	PNP	NO/NC	UR18-CC35DPB-E2
NPN	Hysteresis mode	UR18-CC35DNH-E2	PNP	Hysteresis mode	UR18-CC35DPH-E2
0-5V	Analog output	UR18-CC35DU5-E2	4-20mA	Analog output	UR18-CC35DI-E2
0-10V	Analog output	UR18-CC35DU10-E2			

Specifications					
Sensing range	30-350mm	Protection circuit	Reverse connection, digital overvoltage protection		
Blind area	0-30mm	Output indication	Red LED: Always on, no target detected		
Resolution ratio	0.17mm		Flashing, no target detected in teach-in state		
Repeat accuracy	± 0.15% of full scale value		Yellow LED: Always on, detected target within A1-A2 range		
Absolute accuracy	± 1% (temperature drift compensation)		Flashing, target detected in teach-in state		
Response time	50ms	Input type	With teach-in function		
Switch hysteresis	2mm	Ambient temperature	-25°C...70°C (248-343K)		
Switching frequency	20Hz	Storage temperature	-40°C...85°C (233-358K)		
Power on delay	<500ms	Output characteristics	Support serial port upgrade and change the output type		
Working voltage	15...30VDC	Material	Copper nickel plating, glass bead filled epoxy resin		
No-load current	≤25mA	Protection degree	IP67		
Load resistance	U/1k Ohm	Connection	4 pin M12 connector		

**Dimension**



**Wiring diagram**



## Ultrasonic sensor UR18-CC15 series



### Feature Description

- ◆ M18 installation threaded sleeve, with a minimum length of 40mm
- ◆ Small blind spot and sound cone, suitable for close range fine detection
- ◆ 1 NPN or PNP switch output
- ◆ Analog voltage output 0-5/10V or analog current output 4-20mA
- ◆ Output can be changed through serial port upgrade
- ◆ Setting detection distance through teach-in lines
- ◆ Temperature compensation



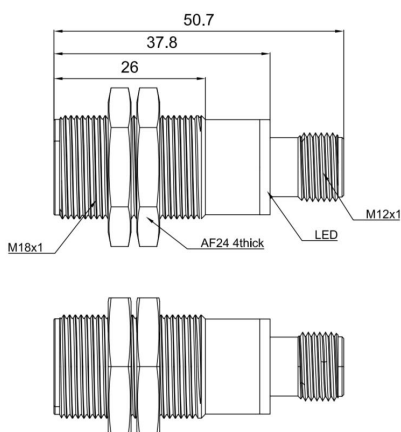
### Model specifications

NPN	NO/NC	UR18-CC15DNB-E2	PNP	NO/NC	UR18-CC15DPB-E2
NPN	Hysteresis mode	UR18-CC15DNH-E2	PNP	Hysteresis mode	UR18-CC15DPH-E2
0-5V	Analog output	UR18-CC15DU5-E2	4-20mA	Analog output	UR18-CC15DI-E2
0-10V	Analog output	UR18-CC15DU10-E2			

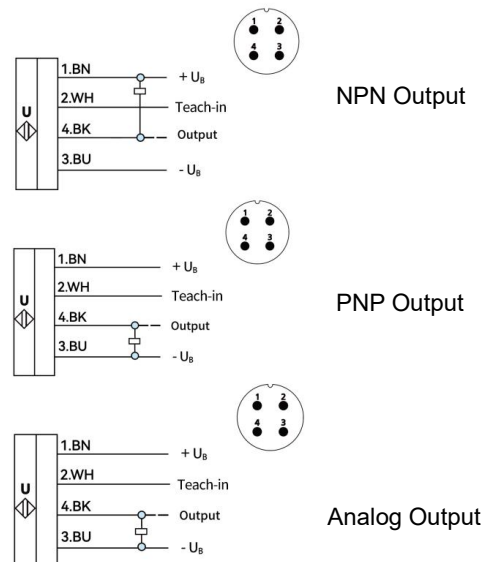
### Specifications

Sensing range	20-150mm	Protection circuit	Reverse connection, digital overvoltage protection
Blind area	0-20mm	Output indication	Red LED: Always on, no target detected Flashing, no target detected in teach-in state
Resolution ratio	0.17mm		Yellow LED: Always on, detected target within A1-A2 range Flashing, target detected in teach-in state
Repeat accuracy	± 0.15% of full scale value	Input type	With teach-in function
Absolute accuracy	± 1% (temperature drift compensation)	Ambient temperature	-25°C...70°C (248-343K)
Response time	50ms	Storage temperature	-40°C...85°C (233-358K)
Switch hysteresis	2mm	Output characteristics	Support serial port upgrade and change the output type
Switching frequency	20Hz	Material	Copper nickel plating, glass bead filled epoxy resin
Power on delay	<500ms	Protection degree	IP67
Working voltage	15...30VDC	Connection	4 pin M12 connector
No-load current	≤25mA		
Load resistance	U/1k Ohm		

### Dimension



### Wiring diagram



Ultrasonic sensor **UR18-CM1** series



**Feature Description**

- ◆ M18 threaded sleeve for easy installation
- ◆ 1 NPN or PNP switch output
- ◆ Support RS 485
- ◆ Temperature compensation



**Model specifications**

NPN+RS 485

UR18-CM1DNR4B-E5

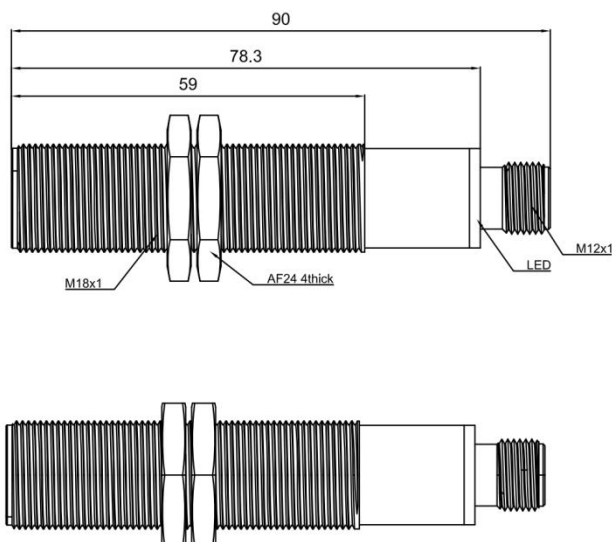
PNP+RS 485

UR18-CM1DPR4B-E5

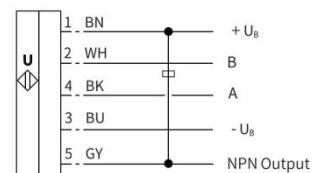
**Specifications**

Sensing range	60-1000mm	No-load current	≤25mA
Blind area	0-60mm	Output indication	LED red light: working status: errors
Resolution ratio	0.5mm		LED blue light: RS 485 command received
Repeat accuracy	±0.15% full scale value		LED yellow light: light on: target detected
Temperature drift	≤2% full scale(temperature drift compensation)		LED green light: light on: power on
Linearity	< 1%	Ambient temperature	-25°C...70°C(253-343K)
Response time	100ms	Storage temperature	-40°C...85°C(233-358K)
Standard test board	100×100mm	Material	Copper nickel plating, glass bead filled epoxy resin
Rated working current	≤200mA	Protection degree	IP67
Oscillator frequency	About 200KHz	Connection	5 pin M12 connector
Operating voltage	10...30VDC		

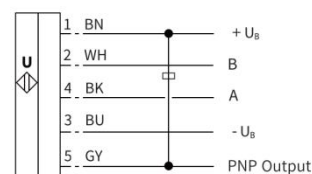
**Dimension**



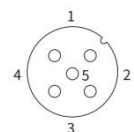
**Wiring diagram**



**NPN Output**



**PNP Output**



Ultrasonic sensor **UR18-CM1** series



**Feature Description**

- ◆ M18 threaded sleeve for easy installation
- ◆ 1 NPN or PNP switch output
- ◆ Analog voltage output 0-5/10V or analog current output 4-20mA
- ◆ Digital TTL output
- ◆ Output can be changed through serial port upgrade
- ◆ Setting detection distance through teach-in lines
- ◆ Temperature compensation



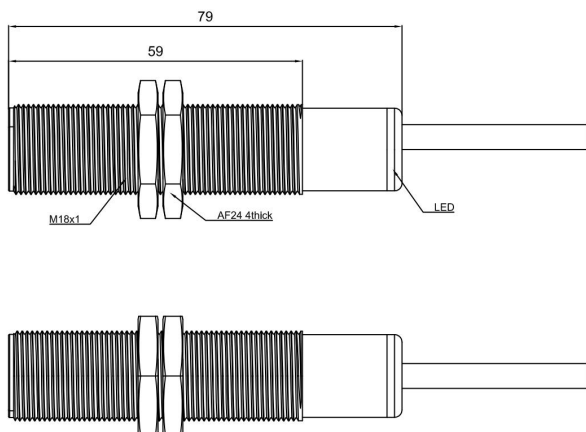
**Model specifications**

NPN	NO/NC	UR18-CM1DNB	PNP	NO/NC	UR18-CM1DPB
NPN	Hysteresis mode	UR18-CM1DNH	PNP	Hysteresis mode	UR18-CM1DPH
0-5V	Analog output	UR18-CM1DU5	4-20mA	Analog output	UR18-CM1DI
0-10V	Analog output	UR18-CM1DU10	Com	TTL232	UR18-CM1DT

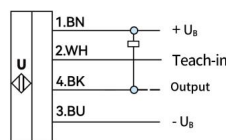
**Specifications**

Sensing range	60-1000mm	Output indication	Red LED: No target detected in teach-in state, always on
Blind area	0-60mm		Yellow LED: In normal working mode, the switch status
Resolution ratio	0.5mm		Blue LED: Target detected in teach-in state, flashing
Repeat accuracy	±0.15% of full scale value		Green LED: Power indicator light, always on
Absolute accuracy	±1% (temperature drift compensation)	Input type	With teach-in function
Response time	100ms	Ambient temperature	-25°C...70°C(248-343K)
Switch hysteresis	2mm	Storage temperature	-40°C...85°C(233-358K)
Switching frequency	10Hz	Output characteristics	Support serial port upgrade and change the output type
Power on delay	<500ms	Material	Copper nickel plating, glass bead filled epoxy resin
Working voltage	15...30VDC	Protection degree	IP67
No-load current	≤25mA	Connection	2m PVC cable

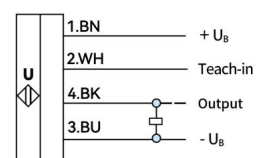
**Dimension**



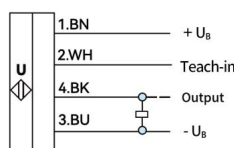
**Wiring diagram**



NPN Output



Analog Output



PNP Output



TTL232

Ultrasonic sensor **UR18-CM1** double output series



**Feature Description**

- ◆ M18 threaded sleeve for easy installation
- ◆ 2 NPN or 2 PNP switch output
- ◆ Output can be changed through serial port upgrade
- ◆ Setting detection distance through teach-in lines
- ◆ Temperature compensation



**Model specifications**

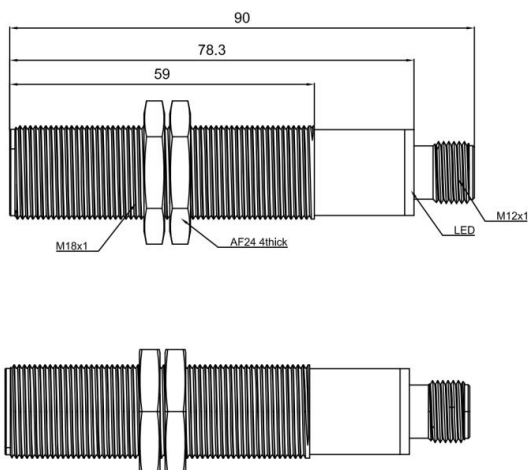
2 NPN NO/NC UR18-CM1D2NB-E5

2 PNP NO/NC UR18-CM1D2PB-E5

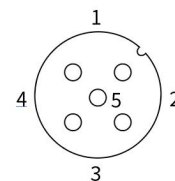
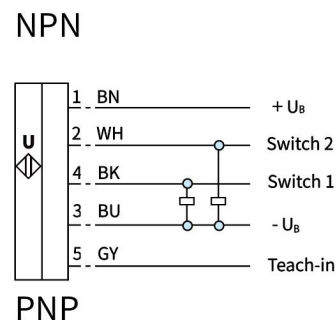
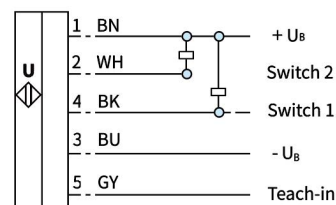
**Specifications**

Sensing range	60-1000mm	Rated working current	2*100mA, Short circuit protection/overload protection
Blind area	0-60mm	Output indication	Red LED: Working status: error; Teach-in state: flashing, no target detected
Resolution ratio	0.5mm		Yellow LED: Switch 1 status indicator, learn A1: flashing, no target detected
Repeat accuracy	±0.15% of full scale value		Blue LED: Switch 2 status indicator, learn A2: flashing, target detected
Absolute accuracy	±1% (temperature drift compensation)		Green LED: Power indicator light, always on
Response time	100ms		With teach-in function
Hysteresis range	1% of the switching distance	Input type	-25°C...70°C(248-343K)
Working voltage	9...30VDC	Ambient temperature	-40°C...85°C(233-358K)
No-load current	≤25mA	Storage temperature	Support serial port upgrade and change the output type
Circuit protection	Overload protection, reverse polarity protection	Output characteristics	Copper nickel plating, glass bead filled epoxy resin
Standard test board	100X100mm	Material	IP67
angle	±7°	Protection degree	5 pin M12 connector
Sensor frequency	About 200KHZ	Connection	

**Dimension**



**Wiring diagram**



Ultrasonic sensor **UR18-CM1** series

**Feature Description**

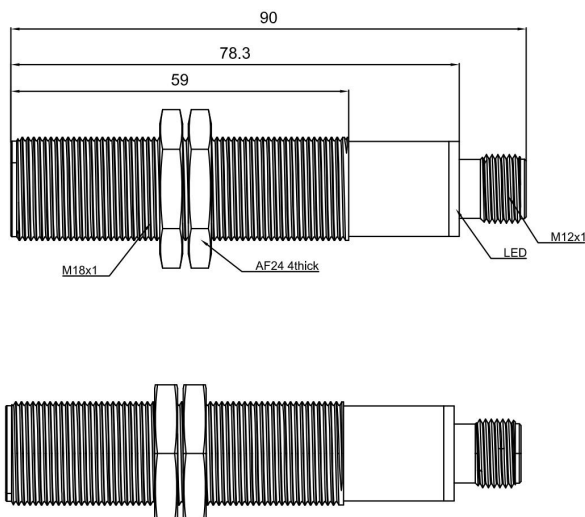
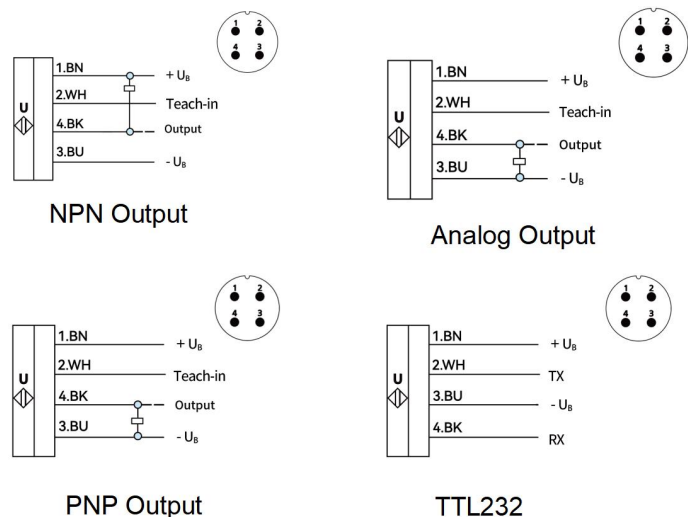
- ◆ M18 threaded sleeve for easy installation
- ◆ 1 NPN or PNP switch output
- ◆ Analog voltage output 0-5/10V or analog current output 4-20mA
- ◆ Digital TTL output
- ◆ Output can be changed through serial port upgrade
- ◆ Setting detection distance through teach-in lines
- ◆ Temperature compensation


**Model specifications**

NPN	NO/NC	UR18-CM1DNB-E2	PNP	NO/NC	UR18-CM1DPB-E2
NPN	Hysteresis mode	UR18-CM1DNH-E2	PNP	Hysteresis mode	UR18-CM1DPH-E2
0-5V	Analog output	UR18-CM1DU5-E2	4-20mA	Analog output	UR18-CM1DI-E2
0-10V	Analog output	UR18-CM1DU10-E2	Com	TTL232	UR18-CM1DT-E2

**Specifications**

Sensing range	60-1000mm	Output indication	Red LED: No target detected in teach-in state, always on
Blind area	0-60mm		Yellow LED: In normal working mode, the switch status
Resolution ratio	0.5mm		Blue LED: Target detected in teach-in state, flashing
Repeat accuracy	±0.15% of full scale value		Green LED: Power indicator light, always on
Absolute accuracy	±1% (temperature drift compensation)	Input type	With teach-in function
Response time	100ms	Ambient temperature	-25°C...70°C(248-343K)
Switch hysteresis	2mm	Storage temperature	-40°C...85°C(233-358K)
Switching frequency	10Hz	Output characteristics	Support serial port upgrade and change the output type
Power on delay	<500ms	Material	Copper nickel plating, glass bead filled epoxy resin
Working voltage	15...30VDC	Protection degree	IP67
No-load current	≤25mA	Connection	4 pin M12 connector

**Dimension**

**Wiring diagram**


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