

ESCH series

Correction & Centering light curtain

Correction & Centering light curtain is an advanced infrared sensor for deviation correction and center detection of coiled material, which is mainly used for effective deviation correction of various material like corrugated paper, fabric, steel etc. It solves the problem that due to the uneven force on the strip or defect of the conveyor itself, the transmission of material deviates from the center line or limited position, the conveyor runs off track, the edge of the strip is not neat when the strip is coiled. Which may be resulted in much material waste, increase the subsequent process work, affect the quality of strips, and need to increase production and maintenance labor for supervision, resulting in low production efficiency.

Product feature

- Option: Unilateral deviation correction, bilateral combined deviation correction, and center deviation can be selected according to actual needs.
- High detection accuracy: highest accuracy is 1.25mm
- Scanning modes: parallel scanning and cross scanning
- Diverse output options: voltage output, current output, Rs485
- Great ability to resist electromagnetic interference and can effectively resist influence by electromagnetic of various equipment motors.

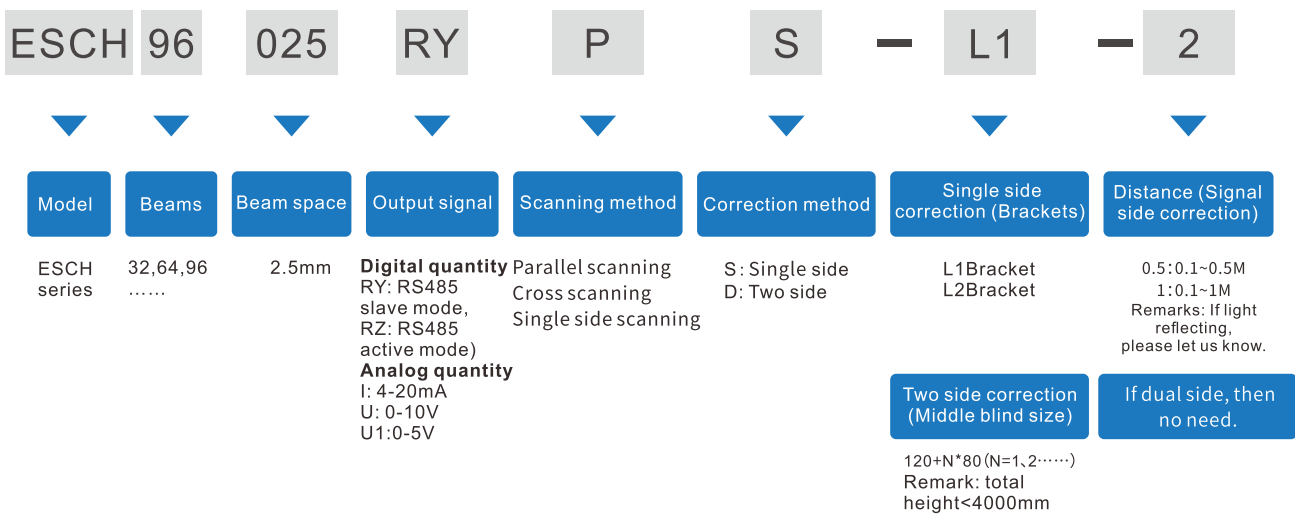


Technical parameter

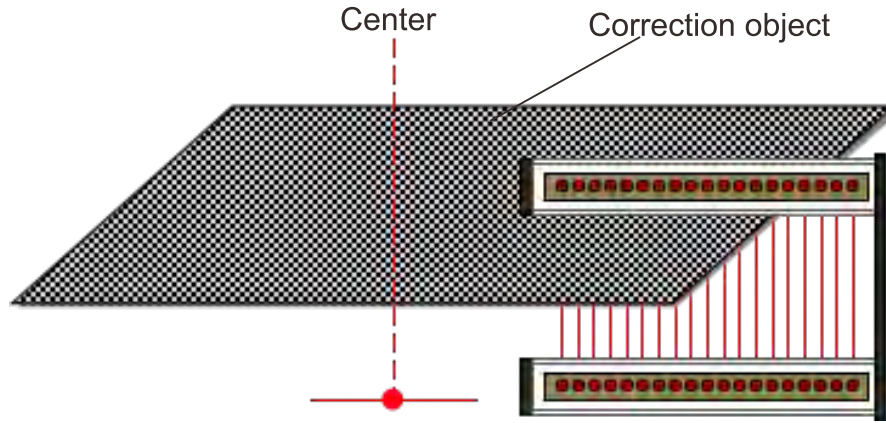
Electrical Parameter	
Power supply	DC12V~30V
Capacity	<5W
Beam space	2.5mm
Accuracy	1.25mm (cross scanning based on 2.5mm), 2.5mm
Detection height	Detection height= (N-1)* beam space, N is beam quantity
Beams	32-544 beams (Other can be customized)
Detection width	80-4000mm (standard)
Wave length	940nm
Detection distance	0-200mm (with protective tube & bracket), 0-1000mm (Remark: If any light reflection, please let us know in advanced.)
Anti-optical interference	10000Lux (angle>5°)
Output Method	Analog voltage 0-5V, 0-10V;
	Analog current 4mA-20mA
	RS485 communication: Modbus protocol, customized protocol
Sensing method	Through-beam type
Communication	Communication method: RS485, RS232
	Baud Rate: 9600bps,19200bps,38400bps,57600bps,115200bps
	Protocol: Modbus-RTU, customized protocol
Synchronization	Data mode: active mode, passive mode
	Wire synchronization
Enclosure material	Aluminum alloy, PC tube
Protection rating	IP65
Ambient operating temperature	-10°C~55°C(without frozen)
Storage temperature	-30°C~70°C(without frozen)
Ambient operating humidity	When temperature is 20°C, humidity max <85%

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- ESE Series
- ESN Series
- ESQC Series
- ELG Series
- EB13 Series
- EB15 Series
- ESA Series
- ESP Series
- EFB Series
- ESF Series
- ESCL Series
- ESCF Series
- ESCH Series**
- ESCC Series
- ESR Series
- EDL-R1 Series
- EPL Series
- EPS Series
- EPC Series
- EPM Series
- EPK Series
- EDS-R Series
- EDS-L Series
- EMB-M01
- F27X Series

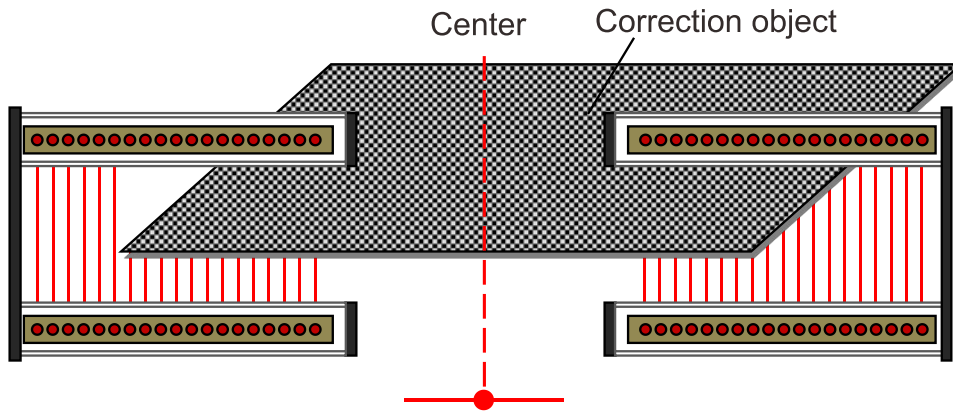
Explanation of model number (For example: ESCH96025RYPS-L1-2)



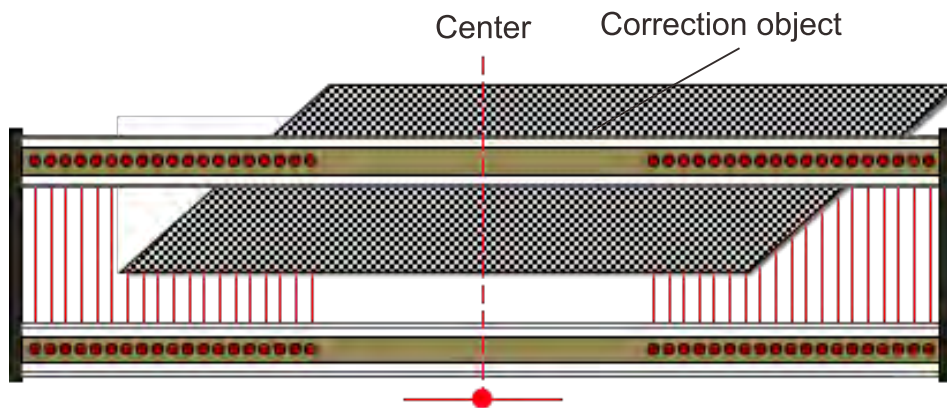
Correction method



Signal side: 1 set light curtain detect and output a group of signals, without protecting tube.



Two side: 2 set light curtain detect and output two groups of independent signals, without protecting tube.

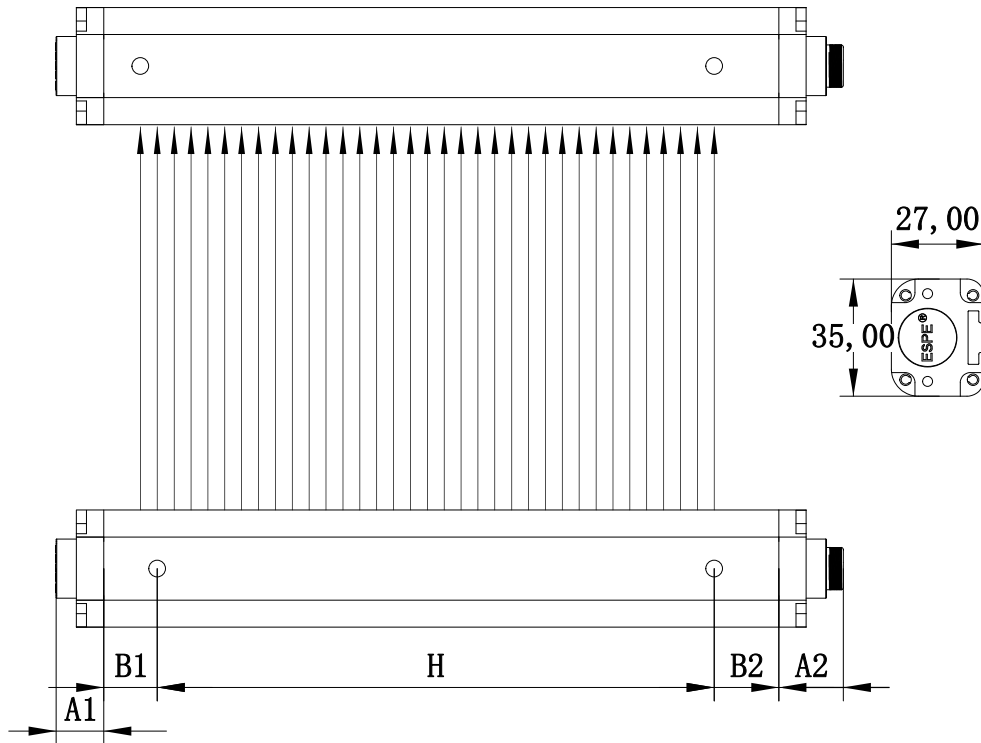


Two side: whole set light curtain detects on two side, the signal or dual data can be output after internal comparison, with protection tube and special mounting brackets.

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Product picture

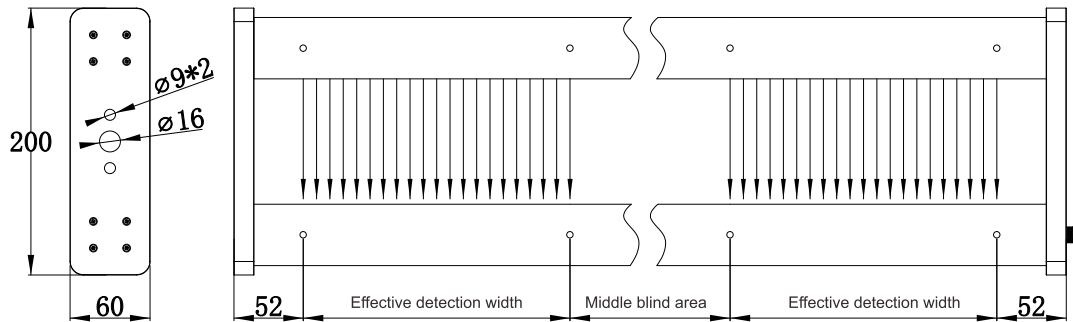
Signal correction/ dual side correction (without tube)



B1: Upper blind area
 B2: Bottom blind area
 D: Beam space
 H: Protection height
 L: Total Height

A1=14mm; A2=20mm
 When D=2.5, B1=6.25mm, B2=81.25mm
 H is protective height: $H = (\text{beam space}-1) * \text{beam space}$
 L is total height: $L = A1+A2+B1+B2+H$

Dual side correction (with protection tube)



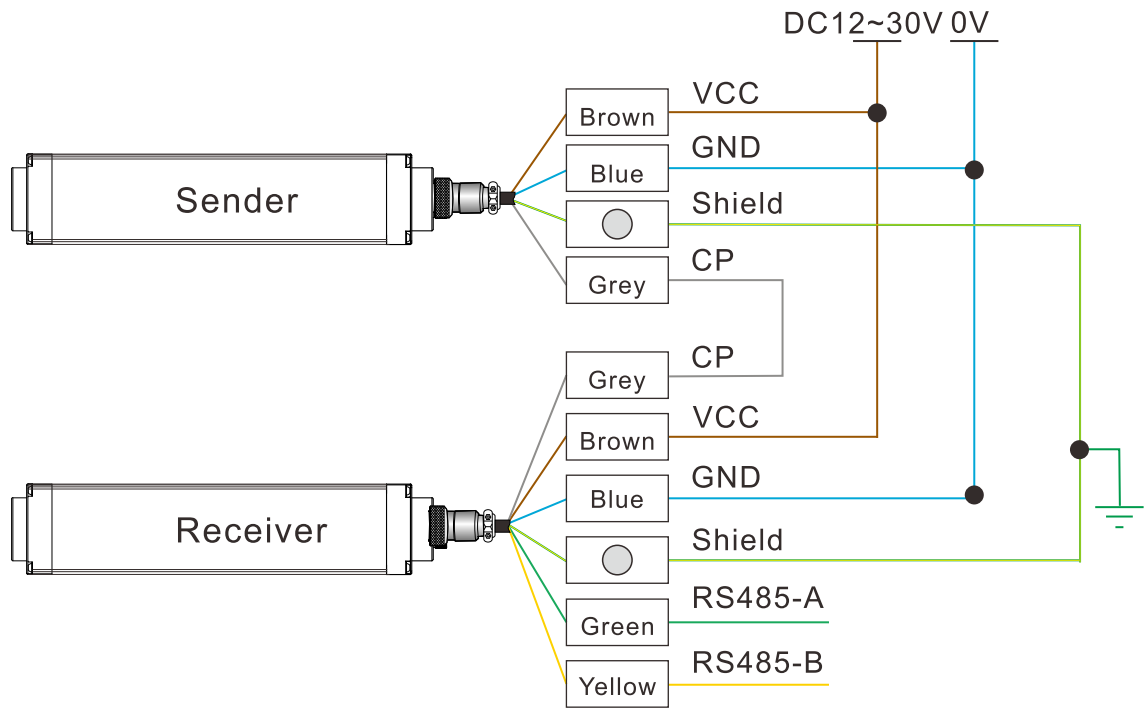
Middle correction

Middle blind area: $W = 120\text{mm} + (80\text{mm} * N)'$, $N=1, 2, 3 \dots$ (Total height < 4000mm)
 Effective detection width H: $(\text{beam space}-1) * \text{beam space}$

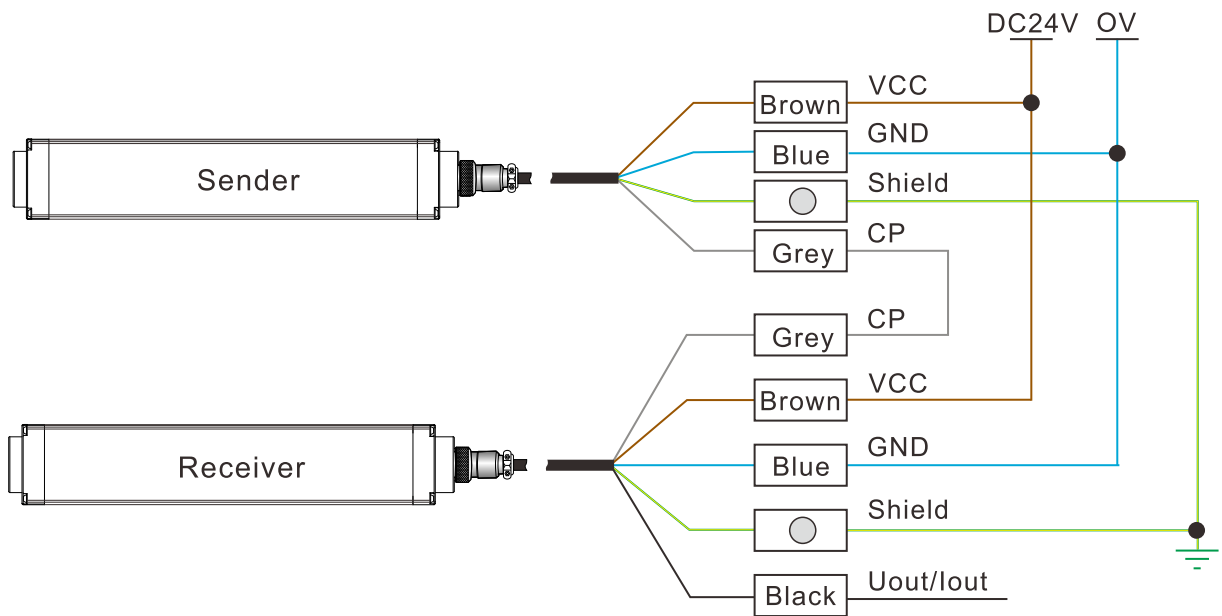
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Wire connection

RS485 connection




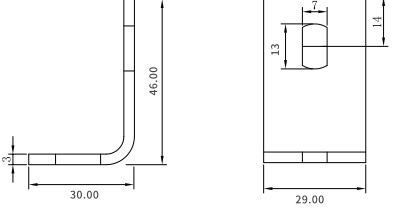

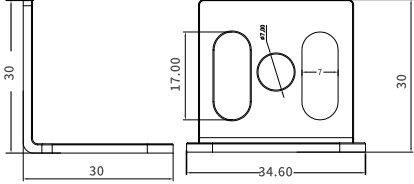
Analog connection




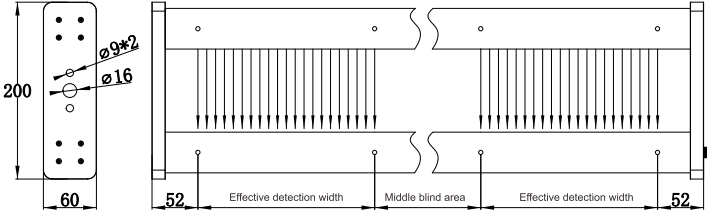
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Installation brackets for dual side

Picture	Bracket Name	Accessories	Bracket Size
	L1 back/ side mounting	<ol style="list-style-type: none"> 1. L brackets(4 pcs) 2. Sliding blocks (4pcs) 3. M6 grommet (4 pcs) 4. M6 pad(4 pcs) 5. M6*16 screw(4 pcs) 6. M6*8 screw(4 pcs) 	
	L2 upper & bottom mounting	<ol style="list-style-type: none"> 1. Brackets (4pcs) 2. M3*6 screw (8pcs) 	

Installation brackets for dual side

Picture	
Name	protecting tube
Size of brackets	

ESCH selection sheet

• 2.5mm Beam space

Beams	Detection Height(mm)	Model
32	77.5	ESCH32025
64	157.5	ESCH64025
96	237.5	ESCH96025
128	317.5	ESCH128025
160	397.5	ESCH160025
192	477.5	ESCH192025
224	557.5	ESCH224025
256	637.5	ESCH256025
288	717.5	ESCH288025
320	797.5	ESCH320025
352	877.5	ESCH352025
384	957.5	ESCH384025
416	1037.5	ESCH416025
448	1117.5	ESCH448025
480	1197.5	ESCH480025
512	1277.5	ESCH512025
544	1357.5	ESCH544025

Remark: Size can be customized according to real application.