

Area Sensors

Area sensors

The area sensor is composed by optical emitter and receiver, all of emitters are in a housing(High quality aluminum alloy as the basic framework, the colors of housing could customized), all of receivers are in the other housing. The object will block a part of light what from the emitters to the receivers when it was to be placed between emitters and receivers. Area sensor can identify the area where to be blocked by synchronous scanning. At first, a emitter tub send a light plus, and the corresponding receiver look for this plus in the same time. It' s finished a scan for a passage when the receiver found this plus, than to the next passage till it finished all of scan.

Detection area

The means of detection area is the area covered by optical network what composed by receiver and emitter.

LE20 Series



Features

- Long distance detection, the longest is 5m.
- Serialized, various of type, detection height from 140mm to 940mm.
- High-brightness LED indicator, work status show more easier.
- High protection degree, apply in widely environment(IP65).

Apply in the industrial, assembly line control and civilian equipment field, play the role of area protection, security protection, size detection, high degree detection.

Note: Don't using this production in the personal security protection

Parameters

Axes Qua.	8Axes	16Axes	24Axes	32Axes	40Axes	48Axes
Emitter	LE20-T0805T-F2	LE20-T1605T-F2	LE20-T2405T-F2	LE20-T3205T-F2	LE20-T4005T-F2	LE20-T4805T-F2
NPN NC	LE20-T0805TNC-F2	LE20-T1605TNC-F2	LE20-T2405TNC-F2	LE20-T3205TNC-F2	LE20-T4005TNC-F2	LE20-T4805TNC-F2
Detection height	140mm	300mm	460mm	620mm	780 mm	940 mm
Detection width	0.1~5m					
Beam distance	20mm					
Sensing object	>φ 35mm opaque object					
Power voltage	12~24V DC±10%					
Current consumption	Lower than 120mA					
Responses time(ms)	12ms					
Light sources	Infrared LED (modulate)					
Circuit protection	Reverse polarity, short-circuit protection, overload protection					
Ambient temperature	- 10 ~ + 55°C(forbidden dewed or iced), storage : - 10 ~ + 60°C					
Ambient humidity	35 ~ 85%RH , storage : 35 ~ 85%RH					
Intensity of illumination	Incandescent lamp : intensity of illumination 3,000lx					
Anti-vibration	10 ~ 55Hz , double-amplitude; 1.2mm, in each of x, y and z direction for 2 hours					
Anti-concussion	Acceleration : 500m/s2(approx:50G) , for 3 times, in each of x,y and z direction					
Protection degree	IP65					
Housing material	Housing : AL ; Light cover : polyester ; End cover : strengthen nylon					
Connection	0.2m cable with M12 connector					
Accessory	5m Connection cable(E12-N4F5)(Customized available)					

Datasheets

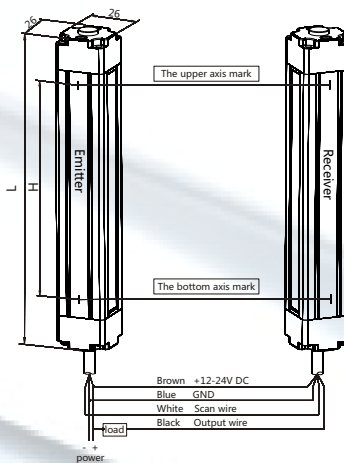
Item code	A	B	H	L
LE20-T0805TNC-F2	20	37	140	194
LE20-T1605TNC-F2	20	37	300	354
LE20-T2405TNC-F2	20	37	460	514
LE20-T3205TNC-F2	20	37	620	674
LE20-T4005TNC-F2	20	37	780	834
LE20-T4805TNC-F2	20	37	940	994

H: Protection height, $H=20* (N-1)$ L: Total length of the production $L=H+54mm$ N: The number of Axes

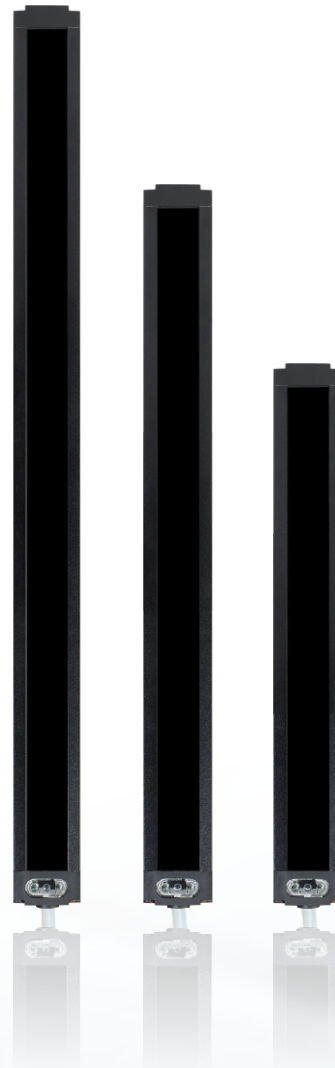
Dimensions



Electrical wiring diagram



LC Series



Features

- Apply in synchronous scanning technology, strong interference prevention function.
- Various of protection height.
- Axes distance: 20mm, 40mm.
- With special controller, strong output control function.
- Widely using in food, packing, logistics and automation assembly field.

Parameters

Axes Qua.	8Axes	12Axes	16Axes	20Axes	24Axes	28Axes	32Axes
Emitter	LC20-T0805T-F2	LC20-T1205TNC-F2	LC20-T1605T-F2	LC20-T2005T-F2	LC20-T2405T-F2	LC20-T2805T-F2	LC20-T3205T-F2
NPN NC	LC20-T0805TNC-F2	LC20-T1205TNC-F2	LC20-T1605TNC-F2	LC20-T2005TNC-F2	LC20-T2405TNC-F2	LC20-T2805TNC-F2	LC20-T3205TNC-F2
PNP NC	LC20-T0805TPC-F2	LC20-T1205TPC-F2	LC20-T1605TPC-F2	LC20-T2005TPC-F2	LC20-T2405TPC-F2	LC20-T2805TPC-F2	LC20-T3205TPC-F2
Detection height	140mm	220mm	300mm	380mm	460mm	540mm	620mm
Detection width	>5mm						
Beam distance	20mm						
Sensing object	>φ 30mm opaque object						
Power voltage	12 ~ 24V DC±10%						
Current consumption	Lower than 150mA						
Response time	Within 12ms						
Light sources	Infrared LED (modulate)						
Circuit protection	Reverse polarity, short-circuit protection, overload protection						
Ambient temperature	- 10 ~ + 55°C(forbidden dewed or iced), storage : - 10 ~ + 60°C						
Ambient humidity	35 ~ 85%RH , storage : 35 ~ 85%RH						
Intensity of illumination	Incandescent lamp : intensity of illumination 3,000lx						
Withstanding voltage	AC1,000V 1min						
Insulation resistance	Above 50MΩ , base on DC 500V Megger						
Anti-vibration	10 ~ 150Hz , double-amplitude; 1.5mm, in each of x, y and z direction for 2 hours						
Anti-concussion	Acceleration : 500m/s ² (approx:50G) , for 3 times, in each of x,y and z direction						
Protection degree	IP65						
Housing material	Housing : AL ; Light cover : polyester ; End cover : strengthen nylon						
Connection	0.2m cable with M12 connector						
Accessory	5m Connection cable(E12-N4F5)(Customized available)						

Datasheets

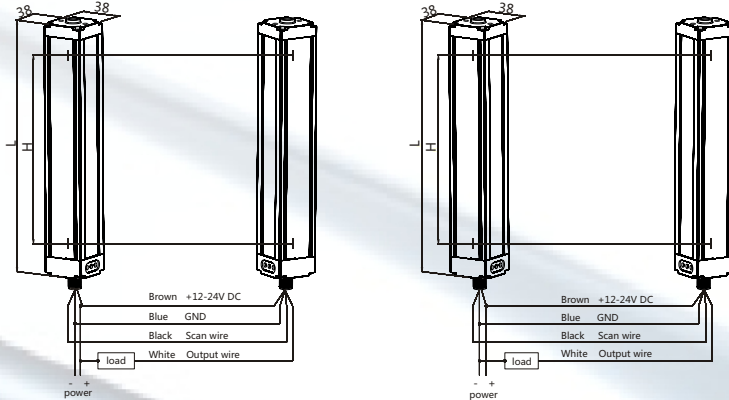
Item code	A	B	H	L
LC20-T0805TxC-F2	20	37	140	198
LC20-T1205TxC-F2	20	37	220	278
LC20-T1605TxC-F2	20	37	300	358
LC20-T2005TxC-F2	20	37	380	438
LC20-T2405TxC-F2	20	37	460	518
LC20-T2805TxC-F2	20	37	540	598
LC20-T3205TxC-F2	20	37	620	678

H: Protection height, H=A* (N-1) L means of the total height L=H+58mm A is the Axes distance, 20mm or 40mm, N is the quantity of axes.

Dimensions



Electrical wiring diagram



Area Sensors

LC40 Series



Parameters

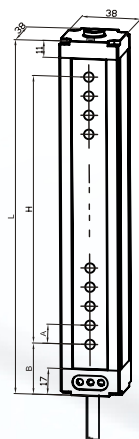
Axes Qua.	4Axes	6Axes	8Axes	10Axes	12Axes	14Axes	16Axes
Emitter	LC40-T040ST-E2 LC40-T040ST-F2	LC40-T060ST-E2 LC40-T060ST-F2	LC40-T080ST-E2 LC40-T080ST-F2	LC40-T100ST-E2 LC40-T100ST-F2	LC40-T120ST-E2 LC40-T120ST-F2	LC40-T140ST-E2 LC40-T140ST-F2	LC40-T160ST-E2 LC40-T160ST-F2
NPN NC	LC40-T040STNC-E2 LC40-T040STNC-F2	LC40-T060STNC-E2 LC40-T060STNC-F2	LC40-T080STNC-E2 LC40-T080STNC-F2	LC40-T100STNC-E2 LC40-T100STNC-F2	LC40-T120STNC-E2 LC40-T120STNC-F2	LC40-T140STNC-E2 LC40-T140STNC-F2	LC40-T160STNC-E2 LC40-T160STNC-F2
PNP NC	LC40-T040STPC-E2 LC40-T040STPC-F2	LC40-T060STPC-E2 LC40-T060STPC-F2	LC40-T080STPC-E2 LC40-T080STPC-F2	LC40-T100STPC-E2 LC40-T100STPC-F2	LC40-T120STPC-E2 LC40-T120STPC-F2	LC40-T140STPC-E2 LC40-T140STPC-F2	LC40-T160STPC-E2 LC40-T160STPC-F2
Detection height	120mm	200mm	280mm	360mm	440mm	520mm	600mm
Axes Qua.	18Axes	20Axes	22Axes	24Axes	26Axes	28Axes	
Emitter	LC40-T180ST-E2 LC40-T180ST-F2	LC40-T200ST-E2 LC40-T200ST-F2	LC40-T220ST-E2 LC40-T220ST-F2	LC40-T240ST-E2 LC40-T240ST-F2	LC40-T260ST-E2 LC40-T260ST-F2	LC40-T280ST-E2 LC40-T280ST-F2	
NPN NC	LC40-T180STNC-E2 LC40-T180STNC-F2	LC40-T200STNC-E2 LC40-T200STNC-F2	LC40-T220STNC-E2 LC40-T220STNC-F2	LC40-T240STNC-E2 LC40-T240STNC-F2	LC40-T260STNC-E2 LC40-T260STNC-F2	LC40-T280STNC-E2 LC40-T280STNC-F2	
PNP NC	LC40-T180STPC-E2 LC40-T180STPC-F2	LC40-T200STPC-E2 LC40-T200STPC-F2	LC40-T220STPC-E2 LC40-T220STPC-F2	LC40-T240STPC-E2 LC40-T240STPC-F2	LC40-T260STPC-E2 LC40-T260STPC-F2	LC40-T280STPC-E2 LC40-T280STPC-F2	
Detection height	680mm	760mm	840mm	920mm	1000mm	1080mm	
Detection width	> 5m						
Beam distance	40mm						
Sensing object	> φ 60mm Opaque object						
Power voltage	12 ~ 24V DC±10%						
Current consumption	Lower than 150mA						
Response time	Within 12ms						
Light sources	Infrared LED (modulate)						
Circuit protection	Reverse polarity, short-circuit protection, overload protection						
Ambient temperature	- 10 ~ + 55°C(forbidden dewed or iced), storage : - 10 ~ + 60°C						
Ambient humidity	35 ~ 85%RH , storage : 35 ~ 85%RH						
Intensity of illumination	Incandescent lamp : intensity of illumination 3,000lx						
Withstanding voltage	AC1,000V 1min						
Insulation resistance	Above 50MΩ , base on DC 500V Megger						
Anti-vibration	10 ~ 150Hz , double-amplitude; 1.5mm, in each of x, y and z direction for 2 hours						
Anti-concussion	Acceleration : 500m/s ² (approx:50G) , for 3 times, in each of x,y and z direction						
Protection degree	IP65						
Housing material	Housing : AL ; Light cover : polyester ; End cover : strengthen nylon						
Connection	0.2m cable with M12 connector						
Accessory	5m Connection cable(E12-N4F5)(Customized available)						

Datasheets

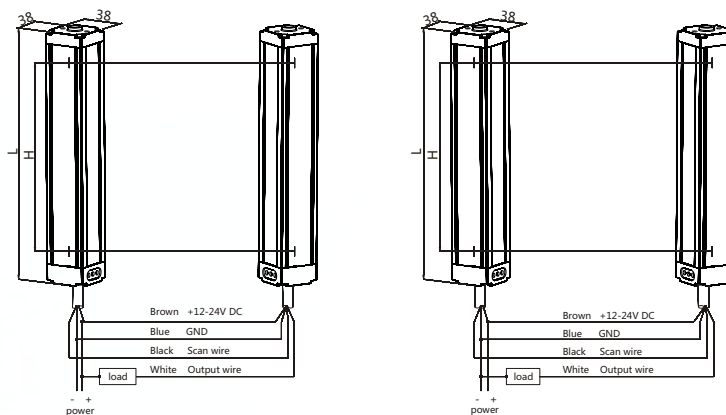
Item code	A	B	H	L
LC40-T0405Tx-C-E2/-F2	40	37	120	178
LC40-T0605Tx-C-E2/-F2	40	37	200	258
LC40-T0805Tx-C-E2/-F2	40	37	280	338
LC40-T1005Tx-C-E2/-F2	40	37	360	418
LC40-T1205Tx-C-E2/-F2	40	37	440	498
LC40-T1405Tx-C-E2/-F2	40	37	520	578
LC40-T1605Tx-C-E2/-F2	40	37	600	658
LC40-T1805Tx-C-E2/-F2	40	37	680	738
LC40-T2005Tx-C-E2/-F2	40	37	760	818
LC40-T2205Tx-C-E2/-F2	40	37	840	898
LC40-T2405Tx-C-E2/-F2	40	37	920	978
LC40-T2605Tx-C-E2/-F2	40	37	1000	1058
LC40-T2805Tx-C-E2/-F2	40	37	1080	1138

H: Protection height, $H=A * (N-1)$ L means of the total height $L=H+58\text{mm}$ A is the Axes distance, 20mm or 40mm, N is the quantity of axes.

Dimensions



Electrical wiring diagram



Area Sensors

Controller of Area Sensor LC Series



Parameters

Item code	LG-01
Power voltage	220V AC 50/60HZ
Output control	Lower than 5A/250VAC
Responses time	Within 20ms
Current consumption	Lower than 100mA
Self-locking function	Provide
Protection degree	IP54
Material	ABS

Controller electrical wiring diagram

