

- Specially developed for detecting transparent packaging such as P.E.T and clear film
- Operation mode selectable by changing power supply polarity
- Diecast housing protection to **IP67**
- **UL** listed
- Supplied with reflector (spare reflectors available)
- 300mm sensing types are ideal for sensing of plastic and other transparent bottles
- Light-on/Dark-on operation selectable

Sensing distance	300mm/1m	Load current	NPN types = 80mA PNP types = 100mA
Supply voltage	12V dc -10% to 24V dc +10% (230V ac using S3 or S3D2 controller)	Response time	1ms max.
Current consumption	40mA	Temperature range	-25°C to +55°C
		Light source	Infra-red

Mfrs. List No. E3S-RS30E4-30 = 177-862, E3S-RS30E42-30 = 177-863, E39-R1 = 177-866,
E3S-R1E4 = 721-3890, E3S-R1B4 = 721-3906, E3S-RS30B4-30 = 722-9290.

SEN82X

Sensing Distance	Output	Order Code	Price Each		
			1+	5+	10+
Horizontal Mounting					
300mm	NPN	.177-862			
300mm	PNP	722-9290			
1m	NPN	.721-3890			
1m	PNP	.721-3906			
Vertical Mounting					
300mm	NPN	177-863			
Spare reflector		177-866.			

Reflex – Transparent Object Sensors – E3S-R



- Ideal for the detection of clear and/or shiny objects
- Plastic bodies, suitable for the food industry
- Light-on, dark-on operation selectable
- Complete with reflector
- Sensors using visible red light ideal for sensing flat/thin objects such as glass, clear film, etc.
- Sensors using infra-red light ideal for sensing plastic and other transparent bottles

H = 21, W = 12, D = 42.3 (721-3505),
D = 40 (721-3517)

Supply voltage	10 – 30Vdc	
Control output	NPN or PNP 30V dc, 100mA max.	
Response time	1ms max	
Operating temperature	0 to 40°C	
Protection	IP67	
Sensor Type	Flat/thin objects	Transparent bottles
Sensing distance	100 to 1000mm	100 to 300m
Light source	Red	Infra-red

SEN261

Sensing Distance	Output	Mfrs. List No.	Order Code	Price Each		
				1+	5+	10+
Flat/Thin Object Sensors						
0.1–1m	NPN	E3S-R11	721-3505			
0.1–1m	PNP	E3S-R31	722-9306			
Transparent Bottle Sensors						
0.1–0.3m	NPN	E3S-R12	721-3517			
0.1–0.3m	PNP	E3S-R32	722-9318			

Clear Glass Sensor – E3S-CR67-C

Metal Housing



- Optimum sensor for detecting transparent glass and plastic bottles
- Retro-reflective sensor gives stable detection of lined-up bottles with 5mm adjacent spaces
- Ensures smooth detection of transparent objects at 1m sensing distance
- Employs visible LED light source producing pin-point 5mm diameter beam
- Easy sensitivity adjustment
- Supplied with mounting bracket
- Plug-in connection (4-pin M12)

Sensor: H = 57 (body),
75 (overall), W = 20.4, D = 23
Reflector: H = 59.9, W = 40.3, D = 7.5

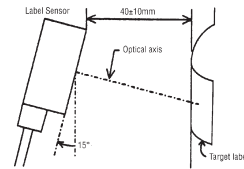
Supply voltage	10 to 30V dc
Sensing distance	0 to 250mm, using E39-R6 reflector 250 to 1000mm, using E39-R1 reflector
Control output	30V dc 100mA max, NPN or PNP (selectable) Open collector, light-ON/dark-ON (selectable)
Indication	Stability (Green), light reception (Red)
Protection	IP67
Ambient temperature	-25°C to +55°C

SEN352

	Mfrs. List No.	Order Code	Price Each		
			1+	5+	10+
Clear glass sensor	E3S-CR67-C	722-6550			
Reflector, 0 to 250mm	E39-R1	177-866			
Reflector, 250 to 1000mm	E39-R6	722-6573			

Label Sensor – E3S-CD63

Metal Housing



H = 57, W = 20.4, D = 23, Cable L = 2m

- Ideal for detecting labels on bottles
- Incorporates fuzzy mutual interference prevention function
- **IP67** protection
- Sensitivity adjustment
- Supplied with mounting bracket

Optical axis adjustment: The sensor should be adjusted to an angle of 15° as shown in the above diagram to give stable label detection unaffected by sensing objects.

Supply voltage	10 to 30V dc	Indication	Stability (Green), Light reception (Red)
Sensing distance	40 ± 10mm	Protection	IP67
Control output	30V dc, 100mA max, light-ON/dark-ON selectable NPN/PNP selectable, open collector	Ambient temperature	-25°C to +55°C

SEN364

Mfrs. List No.	Order Code	Price Each		
		1+	5+	10+
E3S-CD63	722-6585			

Advanced Glossy Object Sensor – E3X-NL



- Detects the subtle glossiness of objects which are notoriously difficult to detect
- Easy to use teach function
- Light-on, Dark-on operation

Applications include:

Transparent labels on webbing
Shrink tubing over/on products
Adhesive, lubricants or grease on product
Coatings on product, e.g. sugar on sweets

Amplifier: H = 33, W = 32.2, D = 59
Sensor: H = 29, W = 10, D = 29, Lead L = 1m

Amplifier	
Supply voltage	12 to 24Vdc
Control output	NPN, 30Vdc, 100mA max.
Response time	1ms max
Enclosure rating	IP50
Operating temperature	-25°C to +55°C

Sensing Heads		
Order Code	721-3487	721-3499
Characteristics	Short range – small spot	Long range
Sensing distance	10 ± 3mm	20 ± 7mm
Minimum detectable object	0.5mm	2mm
Enclosure rating	IP50	IP50
Operating temperature	-25°C to +55°C	-25°C to +55°C
Mfrs. List No.	E32-S15-2	E32-S15L-2

NOTE:- ONE OF EITHER OF THE TWO SENSING HEADS IS NEEDED FOR ONE AMPLIFIER

SEN260

	Mfrs. List No.	Order Code	Price Each		
			1+	5+	10+
Fibre optic amplifier	E3X-NL11	.721-3475			
Sensor, 10mm sensing	E32-S15-2	.721-3487			
Sensor, 20mm sensing	E32-S15L-2	.721-3499			

Diffuse – Background Suppression – E3S-LS



- Detects an object in an area within a fixed distance away from the sensor
- Sensing is largely independent of colour of object
- High setting resolution by multiturn potentiometer
- LED indication of output and stability status
- Stability status output signal can be input to PLC
- ABS plastic housing protected to **IP67**

H = 36.8, W = 13.4, D = 30, Cable L = 2m

Sensing distance	532-332, 532-344	40 to 60mm
	532-356, 532-368	40 to 200mm
Supply voltage	12 to 24V dc ± 10%	
Current consumption	35mA	
Output	Open collector	100mA, 30V dc max. (Alarm 50mA max.)

Operation mode	Light on/Dark on, switch selectable
Response time	532-332, 532-344 1ms 532-356, 532-368 2ms
Temperature range	-25°C to +55°C

Mfrs. List No's. E3S-LS5B4S1 = 532-344, E3S-LS20C4S = 532-356, E3S-LS20B4S1 = 532-368

SEN150X

Sensing distance	Output	Order Code	Price Each		
			1+	5+	10+
40 to 60mm	PNP	532-344			
40 to 200mm	NPN	532-356			
40 to 200mm	PNP	532-368			