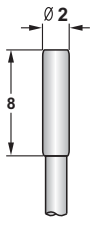
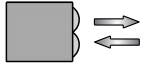
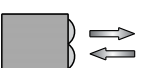
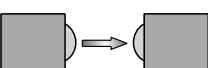
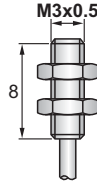
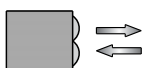
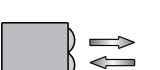
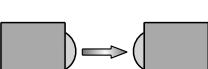


Miniature Separate Sensor Head

O: SEPARATE AMPLIFIER

Type	Sensing Mode	Sensing Distance	Part Number	Light Source	
<p>D02 Series 2mm Smooth Tubular Housing Material: Stainless steel Suitable Amplifier: ASP5 Series</p> 	<p>Diffuse Mode</p> 	12mm	D02S-D0012D-CX9C4U1	Infrared 880nm	
				D02S-D0012D-CX6C4U1	Visible red 660nm
	<p>Retroreflective Mode</p> 	250 mm	D02S-L0250D-CX9C4U1	Infrared 880nm	
				D02S-L0250D-CX6C4U1	Visible red 660nm
	<p>Thru-beam Mode</p> 	200 mm	D02S-T0200D-EX9C4U1 (E*) D02S-T0200D-CX9C4U1 (R*)	Infrared 880nm	
				D02S-T0200D-EX6C4U1 (E*) D02S-T0200D-CX6C4U1 (R*)	Visible red 660nm
			300 mm	D02S-T0300D-EX9C4U1 (E*) D02S-T0300D-CX9C4U1 (R*)	Infrared 880nm
				D02S-T0300D-EX6C4U1 (E*) D02S-T0300D-CX6C4U1 (R*)	Visible red 660nm
			500mm	D02S-T0500D-EX9C4U1 (E*) D02S-T0500D-CX9C4U1 (R*)	Infrared 880nm
				D02S-T0500D-EX6C4U1 (E*) D02S-T0500D-CX6C4U1 (R*)	Visible red 660nm
			800mm	D02S-T0800D-EX9C4U1 (E*) D02S-T0800D-CX9C4U1 (R*)	Infrared 880nm
				D02S-T0800D-EX6C4U1 (E*) D02S-T0800D-CX6C4U1 (R*)	Visible red 645nm
	<p>M03 Series 3mm Threaded Tubular Housing Material: Stainless steel Suitable Amplifier: ASP5 Series</p> 	<p>Diffuse Mode</p> 	12mm	M03S-D0012D-CX9C4U1	Infrared 880nm
					M03S-D0012D-CX6C4U1
<p>Retroreflective Mode</p> 		250 mm	M03S-L0250D-CX9C4U1	Infrared 880nm	
				M03S-L0250D-CX6C4U1	Visible red 660nm
<p>Thru-beam Mode</p> 		200 mm	M03S-T0200D-EX9C4U1 (E*) M03S-T0200D-CX9C4U1 (R*)	Infrared 880nm	
				M03S-T0200D-EX6C4U1 (E*) M03S-T0200D-CX6C4U1 (R*)	Visible red 660nm
			300 mm	M03S-T0300D-EX9C4U1 (E*) M03S-T0300D-CX9C4U1 (R*)	Infrared 880nm
				M03S-T0300D-EX6C4U1 (E*) M03S-T0300D-CX6C4U1 (R*)	Visible red 660nm
			500mm	M03S-T0500D-EX9C4U1 (E*) M03S-T0500D-CX9C4U1 (R*)	Infrared 880nm
				M03S-T0500D-EX6C4U1 (E*) M03S-T0500D-CX6C4U1 (R*)	Visible red 660nm
			800mm	M03S-T0800D-EX9C4U1 (E*) M03S-T0800D-CX9C4U1 (R*)	Infrared 880nm
				M03S-T0800D-EX6C4U1 (E*) M03S-T0800D-CX6C4U1 (R*)	Visible red 645nm

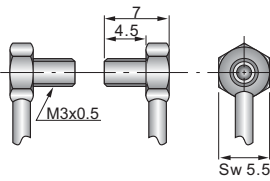
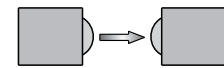
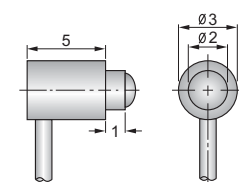
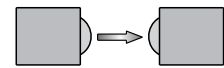
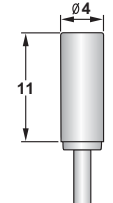
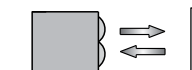

Note: E*: Emitter, R*: Receiver.

In Preparation: Part numbers with a line through the middle

M03 D03 D04 SERIES

Miniature Separate Sensor Head

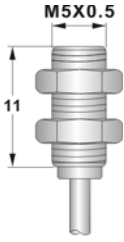
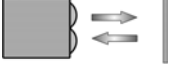
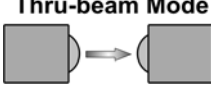
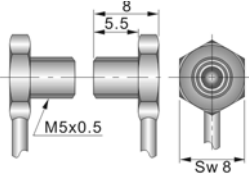

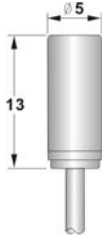
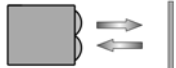
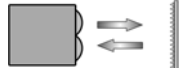
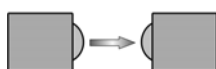
O: SEPARATE
AMPLIFIER

Type	Sensing Mode	Sensing Distance	Part Number	Light Source	
M03 Series (Side sensing) 3mm Threaded Tubular Housing Material: Stainless steel Suitable Amplifier: ASP5 Series 	Thru-beam Mode 	500mm	M03S-T0500D-EY9C4U1 (E*) M03S-T0500D-CY9C4U1 (R*)	Infrared 880nm	
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D03 Series (Side sensing) 3mm Smooth Tubular Housing Material: Stainless steel Suitable Amplifier: ASP5 Series 	Thru-beam Mode 	500mm	D03S-T0500D-EY9C4U1 (E*) D03S-T0500D-CY9C4U1 (R*)	Infrared 880nm	
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		---	---	---	---
D04 Series 4mm Smooth Tubular Housing Material: Stainless steel Suitable Amplifier: ASP5 Series 	Diffuse Mode 	40mm	D04S-D0040D-CX9C4U1	Infrared 880nm	
			D04S-D0040D-CX6C4U1	Visible red 660nm	
	Thru-beam Mode 	800mm	D04S-T0800D-EX9C4U1 (E*) D04S-T0800D-CX9C4U1 (R*)	Infrared 880nm	
			D04S-T0800D-EX6C4U1 (E*) D04S-T0800D-CX6C4U1 (R*)	Visible red 660nm	
		1000mm	D04S-T1000D-EX9C4U1 (E*) D04S-T1000D-CX9C4U1 (R*)	Infrared 880nm	
			D04S-T1000D-EX6C4U1 (E*) D04S-T1000D-CX6C4U1 (R*)	Visible red 660nm	
		1500mm	D04S-T1500D-EX9C4U1 (E*) D04S-T1500D-CX9C4U1 (R*)	Infrared 880nm	
			D04S-T1500D-EX6C4U1 (E*) D04S-T1500D-CX6C4U1 (R*)	Visible red 645nm	
		2000mm	D04S-T2000D-EX9C4U1 (E*) D04S-T2000D-CX9C4U1 (R*)	Infrared 880nm	
			D04S-T2000D-EX6C4U1 (E*) D04S-T2000D-CX6C4U1 (R*)	Visible red 660nm	

Note: E*: Emitter, R*: Receiver.

In Preparation: Part numbers with a line through the middle

Miniature Separate Sensor Head

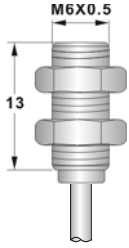
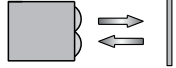
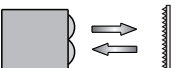
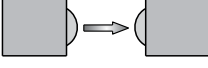
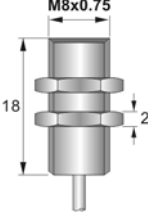
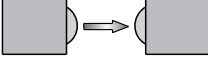
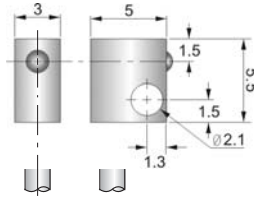
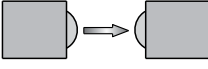
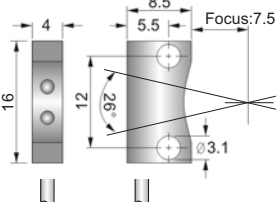
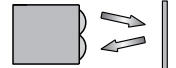
Type	Sensing Mode	Sensing Distance	Part Number	Light Source	
M05 Series 5mm Threaded Tubular Housing Material: Stainless steel Suitable Amplifier: ASP2/3/4, PS900A Series 	Diffuse Mode 	40mm	M05S-D0040D-CX9C4U1	Infrared 880nm	
			M05S-D0040D-CX6C4U1	Visible red 660nm	
	Thru-beam Mode 	800mm	M05S-T0800D-EX9C4U1 (E*) M05S-T0800D-CX9C4U1 (R*)	Infrared 880nm	
			M05S-T0800D-EX6C4U1 (E*) M05S-T0800D-CX6C4U1 (R*)	Visible red 660nm	
		1000mm	M05S-T1000D-EX9C4U1 (E*) M05S-T1000D-CX9C4U1 (R*)	Infrared 880nm	
			M05S-T1000D-EX6C4U1 (E*) M05S-T1000D-CX6C4U1 (R*)	Visible red 660nm	
		1500mm	M05S-T1500D-EX9C4U1 (E*) M05S-T1500D-CX9C4U1 (R*)	Infrared 880nm	
			M05S-T1500D-EX6C4U1 (E*) M05S-T1500D-CX6C4U1 (R*)	Visible red 645nm	
		2000mm	M05S-T2000D-EX9C4U1 (E*) M05S-T2000D-CX9C4U1 (R*)	Infrared 880nm	
			M05S-T2000D-EX6C4U1 (E*) M05S-T2000D-CX6C4U1 (R*)	Visible red 660nm	
M05 Series (Side sensing type) 5mm Threaded Tubular Housing Material: Stainless steel Suitable Amplifier: ASP2/3/4, PS900A Series 	Thru-beam Mode 	1000mm	M05S-T1000D-EY9C4U1 (E*) M05S-T1000D-CY9C4U1 (R*)	Infrared 880nm	
			M05S-T1000D-EY6C4U1 (E*) M05S-T1000D-CY6C4U1 (R*)	Visible red 660nm	
		—	—	—	—
		—	—	—	—
		—	—	—	—
D05 Series 5mm Smooth Tubular Housing Material: Stainless steel Suitable Amplifier: ASP2/3/4, PS900A Series 	Diffuse Mode 	63mm	D05S-D0063D-CX9C4U1	Infrared 880nm	
			D05S-D0063D-CX6C4U1	Visible red 660nm	
	Retroreflective Mode 	800mm	D05S-L0800D-CX9C4U1	Infrared 880nm	
			D05S-L0800D-CX6C4U1	Visible red 660nm	
	Thru-beam Mode 	800mm	D05S-T0800D-EX9C4U1 (E*) D05S-T0800D-CX9C4U1 (R*)	Infrared 880nm	
			D05S-T0800D-EX6C4U1 (E*) D05S-T0800D-CX6C4U1 (R*)	Visible red 660nm	
		4000mm	D05S-T4000D-EX9C4U1 (E*) D05S-T4000D-CX9C4U1 (R*)	Infrared 880nm	
			D05S-T4000D-EX6C4U1 (E*) D05S-T4000D-CX6C4U1 (R*)	Visible red 660nm	

Note: E*: Emitter, R*: Receiver.

In Preparation: Part numbers with a line through the middle

M06 M08 Q3 Q4 SERIES

Miniature Separate Sensor Head

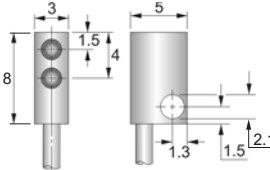
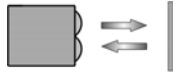
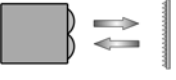
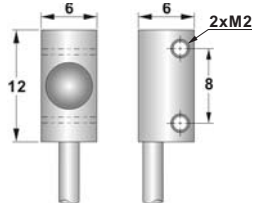
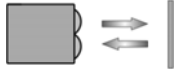
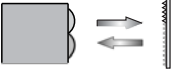
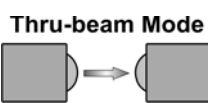
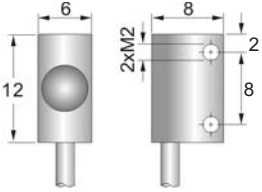
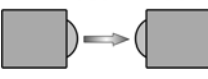
Type	Sensing Mode	Sensing Distance	Part Number	Light Source
M06 Series 6mm Threaded Tubular Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Diffuse Mode 	63mm	M06B-D0063D-CX9C4U1	Infrared 880nm
			M06B-D0063D-CX6C4U1	Visible red 660nm
	Retroreflective Mode 	800mm	M06B-L0800D-CX9C4U1	Infrared 880nm
			M06B-L0800D-CX6C4U1	Visible red 660nm
	Thru-beam Mode 	800mm	M06B-T0800D-EX9C4U1 (E*) M06B-T0800D-CX9C4U1 (R*)	Infrared 880nm
		4000mm	M06B-T0800D-EX6C4U1 (E*) M06B-T0800D-CX6C4U1 (R*)	Visible red 660nm
M08 Series 8mm Threaded Tubular Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Thru-beam Mode 		4000mm	M08B-T4000D-EX9C4U1 (E*) M08B-T4000D-CX9C4U1 (R*)
		_____	M08B-T4000D-EX6C4U1 (E*) M08B-T4000D-CX6C4U1 (R*)	Visible red 660nm
Q3x5x5.5 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Thru-beam Mode 	500 mm	Q03B-T0500D-EY9C4U1 (E*) Q03B-T0500D-CY9C4U1 (R*)	Infrared 880nm
		_____	Q03B-T0500D-EY6C4U1 (E*) Q03B-T0500D-CY6C4U1 (R*)	Visible red 660nm
Q4x8.5x16 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Convergent Mode 	3...15 mm	Q04B-C0015D-CY9C4U1	Infrared 880nm
		_____	Q04B-C0015D-CY6C4U1	Visible red 660nm

Note: E*: Emitter, R*: Receiver.

In Preparation: Part numbers with a line through the middle

Miniature Separate Sensor Head

O: SEPARATE AMPLIFIER

Type	Sensing Mode	Sensing Distance	Part Number	Light Source	
Q3x5x8 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Diffuse Mode 	5...20mm	Q03B-D0020D-CY9C4U1	Infrared 880nm	
			Q03B-D0020D-CY6C4U1	Visible red 660nm	
		70mm	Q03B-D0070D-CY9C4U1	Infrared 880nm	
			Q03B-D0070D-CY6C4U1	Visible red 660nm	
	Retroreflective Mode 	500mm	Q03B-L0500D-CY9C4U1	Infrared 880nm	
			Q03B-L0500D-CY6C4U1	Visible red 660nm	
		800mm	Q03B-L0800D-CY9C4U1	Infrared 880nm	
			Q03B-L0800D-CY6C4U1	Visible red 660nm	
Q6x6x12 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Diffuse Mode 	63mm	Q06B-D0063D-CY9C4U1	Infrared 880nm	
			Q06B-D0063D-CY6C4U1	Visible red 660nm	
	Retroreflective Mode 	800mm	Q06B-L0800D-CY9C4U1	Infrared 880nm	
			<u>Q06B-L0800D-CY6C4U1</u>	Visible red 660nm	
	Thru-beam Mode 	800mm	Q06B-T0800D-EY9C4U1 (E*) Q06B-T0800D-CY9C4U1 (R*)	Infrared 880nm	
			Q06B-T0800D-EY6C4U1 (E*) Q06B-T0800D-CY6C4U1 (R*)	Visible red 660nm	
		1000mm	Q06B-T1000D-EY9C4U1 (E*) Q06B-T1000D-CY9C4U1 (R*)	Infrared 880nm	
			Q06B-T1000D-EY6C4U1 (E*) Q06B-T1000D-CY6C4U1 (R*)	Visible red 660nm	
		2000mm	Q06B-T2000D-EY9C4U1 (E*) Q06B-T2000D-CY9C4U1 (R*)	Infrared 880nm	
			Q06B-T2000D-EY6C4U1 (E*) Q06B-T2000D-CY6C4U1 (R*)	Visible red 660nm	
Q6x8x12 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series 	Thru-beam Mode 	4000mm	Q06B-T4000D-EY9C4U1 (E*) Q06B-T4000D-CY9C4U1 (R*)	Infrared 880nm	
			Q06B-T4000D-EY6C4U1 (E*) Q06B-T4000D-CY6C4U1 (R*)	Visible red 660nm	
	_____	_____	_____	_____	_____
		_____	_____	_____	_____
		_____	_____	_____	_____
		_____	_____	_____	_____

Note: E*: Emitter, R*: Receiver
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle

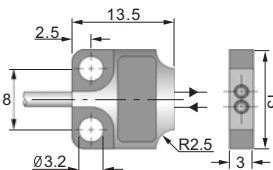
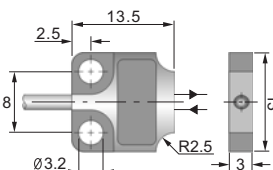

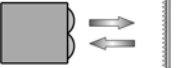
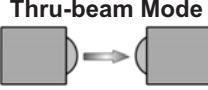
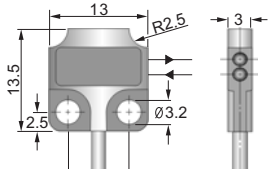
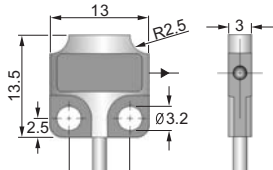
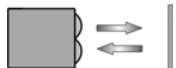
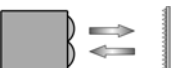

Miniature Separate Sensor Head

Type	Sensing Mode	Sensing Distance	Part Number	Light Source
<p>Q6x8x17 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series</p>	<p>Diffuse Mode</p>	200 mm	<u>Q06B-D0200D-CY9G4U4</u>	Infrared 880nm
			<u>Q06B-D0200D-CY6G4U4</u>	Visible red 660nm
	<p>Retroreflective Mode</p>	3000 mm	<u>Q06B-L3000D-CY9G4U4</u>	Infrared 880nm
			<u>Q06B-L3000D-CY6G4U4</u>	Visible red 660nm
	<p>Retroreflective Mode (with polarizing filter)</p>	1500 mm	<u>Q06B-L1500D-CY6G4U1-PF</u>	Visible red 660nm
			<u>Q06B-L1500D-CY9G4U1-PF</u>	Visible red 660nm
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<p>Q9x18x23 Series Housing Material: Nickel-plated Brass Suitable Amplifier: ASP2/3/4, PS900A Series</p>	<p>Retroreflective Mode</p>	5000mm	<u>Q09B-L5000D-CY9G4U4</u>	Infrared 880nm
			<u>Q09B-L5000D-CY6G4U4</u>	Visible red 660nm
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O: SEPARATE AMPLIFIER

Note: E*: Emitter, R*: Receiver.
Coming Soon : Part numbers with underline
In Preparation: Part numbers with a line through the middle — O-06 —

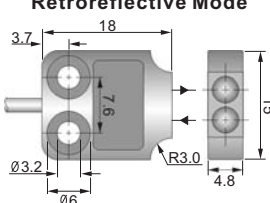
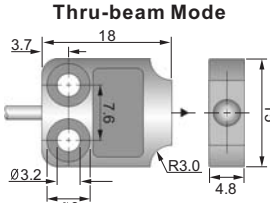
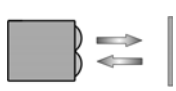
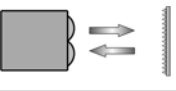
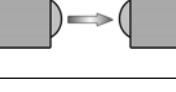
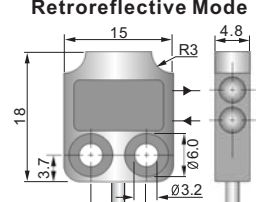
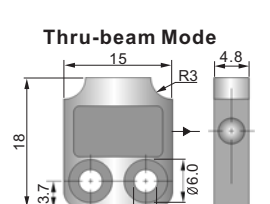
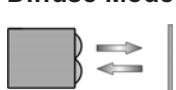
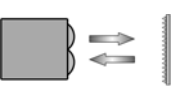
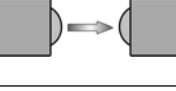
Miniature Separate Sensor Head

Type	Sensing Mode	Sensing Distance	Part Number	Light Source/ Light Spot Size
<p>R13x13.5x3 Series (Front Sensing type) Housing Material: Die-cast Suitable Amplifier: ASP2/3/4, PS900A Series</p> <p>Diffuse Mode / Retroreflective Mode</p>  <p>Thru-beam Mode</p> 	<p>Diffuse Mode</p> 	<p>2...25 mm (white 90%, 100x100mm)</p>	R13A-D0025D-CX6C4U1	Visible red 645nm/ 1.5mm @ 20mm
		<p>3.5...60 mm (white 90%, 50x50mm)</p>	R13A-D0060D-CX6C4U1	Visible red 645nm/ 10mm @ 100mm
		<p>3.5...24 mm (gray 90%, 50x50mm)</p>	R13A-D0024D-CX6C4U1	Visible red 645nm/ 10mm @ 100mm
	<p>Retroreflective Mode</p> 	<p>600 mm</p>	R13A-L0600D-CX6C4U1	Visible red 645nm/ 1.5mm @ 20mm
		<p>1000 mm</p>	R13A-L1000D-CX6C4U1	Visible red 645nm/ 10mm @ 100mm
	<p>Thru-beam Mode</p> 	<p>500 mm</p>	<p>R13A-T0500D-EX6C4U1 (E*) R13A-T0500D-CX6C4U1 (R*)</p>	Visible red 645nm/ 10mm @ 100mm
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<p>R13x13.5x3 Series (Side Sensing type) Housing Material: Die-cast Suitable Amplifier: ASP2/3/4, PS900A Series</p> <p>Diffuse Mode / Retroreflective Mode</p>  <p>Thru-beam Mode</p> 	<p>Diffuse Mode</p> 	<p>2...25 mm (white 90%, 100x100mm)</p>	R13A-D0025D-CY6C4U1	Visible red 645nm/ 1.5mm @ 20mm
		<p>3.5...60 mm (white 90%, 50x50mm)</p>	R13A-D0060D-CY6C4U1	Visible red 645nm/ 10mm @ 100mm
		<p>3.5...24 mm (gray 90%, 50x50mm)</p>	R13A-D0024D-CY6C4U1	Visible red 645nm/ 10mm @ 100mm
	<p>Retroreflective Mode</p> 	<p>600 mm</p>	R13A-L0600D-CY6C4U1	Visible red 645nm/ 1.5mm @ 20mm
		<p>1000 mm</p>	R13A-L1000D-CY6C4U1	Visible red 645nm/ 10mm @ 100mm
	<p>Thru-beam Mode</p> 	<p>500 mm</p>	<p>R13A-T0500D-EY6C4U1 (E*) R13A-T0500D-CY6C4U1 (R*)</p>	Visible red 645nm/ 10mm @ 100mm
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Note: E*: Emitter, R*: Receiver.
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle — O-07 —

O: SEPARATE AMPLIFIER


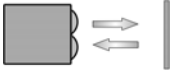

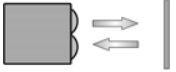

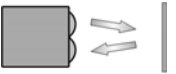

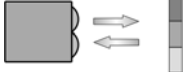




Miniature Separate Sensor Head

Type	Sensing Mode	Sensing Distance	Part Number	Light Source/ Light Spot Size	
<p>R15x18x4.8 Series (Front Sensing type) Housing Material: Die-cast Suitable Amplifier: ASP2/3/4,PS900A Series</p> <p>Diffuse Mode / Retroreflective Mode</p>  <p>Thru-beam Mode</p> 	<p>Diffuse Mode</p> 	<p>1...50 mm (white 90%, 100x100mm)</p>	R15A-D0050D-CX6C4U1	Visible red 645nm/ 1.5mm @ 20mm	
			<p>3.5...100 mm (white 90%, 100x100mm)</p>	R15A-D0100D-CX6C4U1	Visible red 645nm/ 10mm @ 100mm
	<p>Retroreflective Mode</p> 	<p>1000 mm</p>	R15A-L1000D-CX6C4U1	Visible red 645nm/ 1.5mm @ 20mm	
		<p>1200 mm</p>	R15A-L1200D-CX6C4U1	Visible red 645nm/ 10mm @ 100mm	
	<p>Thru-beam Mode</p> 	<p>1500 mm</p>	R15A-T1500D-EX6C4U1 (E*) R15A-T1500D-CX6C4U1 (R*)	Visible red 645nm/ 1.5mm @ 20mm	
		<p>2000 mm</p>	R15A-T2000D-EX6C4U1 (E*) R15A-T2000D-CX6C4U1 (R*)	Visible red 645nm/ 10mm @ 100mm	
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<p>R15x18x4.8 Series (Side Sensing type) Housing Material: Die-cast Suitable Amplifier: ASP2/3/4,PS900A Series</p> <p>Diffuse Mode / Retroreflective Mode</p>  <p>Thru-beam Mode</p> 	<p>Diffuse Mode</p> 	<p>1...50 mm (white 90%, 100x100mm)</p>	R15A-D0050D-CY6C4U1	Visible red 645nm/ 1.5mm @ 20mm	
			<p>3.5...100 mm (white 90%, 100x100mm)</p>	R15A-D0100D-CY6C4U1	Visible red 645nm/ 10mm @ 100mm
	<p>Retroreflective Mode</p> 	<p>1000 mm</p>	R15A-L1000D-CY6C4U1	Visible red 645nm/ 1.5mm @ 20mm	
		<p>1200 mm</p>	R15A-L1200D-CY6C4U1	Visible red 645nm/ 10mm @ 100mm	
	<p>Thru-beam Mode</p> 	<p>1500 mm</p>	R15A-T1500D-EY6C4U1 (E*) R15A-T1500D-CY6C4U1 (R*)	Visible red 645nm/ 1.5mm @ 20mm	
		<p>2000 mm</p>	R15A-T2000D-EY6C4U1 (E*) R15A-T2000D-CY6C4U1 (R*)	Visible red 645nm/ 10mm @ 100mm	
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O: SEPARATE
AMPLIFIER

Note: E*: Emitter, R*: Receiver.
Coming Soon : Part numbers with underline
In Preparation: Part numbers with a line through the middle — O-08 —

Miniature Separate Sensor Head

Appearance	Sensing Mode	Sensing Distance	Part Number	Light Source/ Light Spot Size
2m Cable (Standard shape) 	Diffuse Mode 	200mm	<u>ASP1-D0200D-CY6C4U2</u>	Red Light / 13x13mm @150 mm
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2m Cable (Flat shape) 	Diffuse Mode 	60mm	<u>ASP1-D0060D-CY6C4U2-FL</u>	Red Light / 35 mm @ 150 mm
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2m Cable 	Convergent Mode 	6...35mm (White 90%)	<u>ASP1-C0035D-CY6C4U2-4</u>	Red Light / 1 x 4 mm @ 16 mm
		3...30mm (White 90%)	ASP1-C0030D-CY6C4U2-4	Red Light / 1 x 1 mm @ 16 mm
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2m Cable 	Mark Sensor 	16mm	<u>ASP1-M0016D-CY6C4U2-4</u>	Red Light / 1 x 4 mm @ 16 mm
		16mm	<u>ASP1-M0016D-CY5C4U2-4</u>	Green Light / 1 x 4 mm @ 16 mm
		16mm	<u>ASP1-M0016D-CY6C4U2-1</u>	Red Light / 1 x 1 mm @ 16 mm
		16mm	<u>ASP1-M0016D-CY5C4U2-1</u>	Green Light / 1 x 1 mm @ 16 mm
2m Cable (Standard shape) 	Opposed Mode 	2m	<u>ASP1-T2000D-EY6C2L2 (E*)</u> <u>ASP1-T2000D-CY6C2U2 (R*)</u>	Red Light / 180 mm @ 1.5 m
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2m Cable (Flat shape) 	Opposed Mode 	350mm	<u>ASP1-T0350D-EY6C2L2-FL (E*)</u> <u>ASP1-T0350D-CY6C2U2-FL (R*)</u>	Red Light / 200 mm @ 300 mm
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Note: E*: Emitter, R*: Receiver.

Coming Soon : Part numbers with underline

In Preparation: Part numbers with a line through the middle

ASP2 ASP5 ASP3 ASP4 SERIES

Separate Amplifier Selection Guide

Product Highlights	Connection	Part Number
<ul style="list-style-type: none"> ▶ Rugged plastic housing ▶ Compatible with all miniature Series remote sensing heads ▶ Supports contrast sensing with red or green light sources ▶ Signal strength indicator ▶ Sensitivity adjustment ▶ Outputs short circuit and over current protected ▶ Power supply reverse polarity protected ▶ Light/Dark changeover ▶ Selectable off delay ▶ Cable or M8 quick disconnect versions ▶ Easy DIN rail mounting 	ASP2 / ASP5 (2m Cable) 	NPN: <u>ASP2-A0000N-CX0C3U2</u> <u>ASP5-A0000N-CX0C3U2</u>
		PNP: <u>ASP2-A0000P-CX0C3U2</u> <u>ASP5-A0000P-CX0C3U2</u>
	ASP2 / ASP5 Quick Disconnect (Pico style) 	NPN: <u>ASP2-A0000N-CX0Q4UP</u> <u>ASP5-A0000N-CX0Q4UP</u>
		PNP: <u>ASP2-A0000P-CX0Q4UP</u> <u>ASP5-A0000P-CX0Q4UP</u>
<ul style="list-style-type: none"> ▶ Rugged plastic housing ▶ Compatible with all miniature Series remote sensing heads ▶ Signal strength indicator ▶ Sensitivity adjustment ▶ Outputs short circuit and over current protected ▶ Power supply reverse polarity protected ▶ Easy DIN rail mounting ▶ Warning Output ▶ Light-ON/Dark-ON changeover 	ASP3 (6 terminals) 	NPN: <u>ASP3-A0000N-CX0T6U</u> PNP: <u>ASP3-A0000P-CX0T6U</u>
	ASP4 (8 terminals) 	Relay SPST: <u>ASP4-A0000U-CX0T8U</u>

O : SEPARATE AMPLIFIER

Note:

Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle

D02 M03 D04 D05 M05 M06... SERIES

Miniature Separate Sensor Head Specifications

Series	D02	D03	M03	D04	D05	M05	M06	M08	Q3	Q4	Q6	Q9	R13	R15
Sensing Mode	Diffuse Mode, Thru-beam Mode, Retroreflective Mode (See each series)													
Sensing Distance	See each mode													
Light source	Infrared 880nm, Visible red 660nm, Visible red 645n													
Ambient Operating Temperature	-10°C...+55°C													
Storage Temperature	-30°C...+70°C													
Environmental rating	IP65													
Relative humidity	90% at 20°C													
Connection	1m cable (other length on request) with amplifier connector													
Housing material	See each mode													
Sensing face material	PMMA													
EMC	IEC 60947-5-2, Parts 7.2.6.1. 2. 3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)													
Voltage Withstand Ability	IEC 60947-5-2, Part 8.3.3.4 or 1500VAC for one min, between all supply terminals connected together and enclosure													
Insulation Resistance	>20M Ω, with 1500V AC megger between all supply terminals connected together and enclosure													
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x , y and z directions for 30 min													
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x , y and z directions for six time each													

O: SEPARATE AMPLIFIER

Specifications (Diffuse Mode/Convergent Mode)

Diffuse Mode	ASP1-D0200D-CY6C4U2 (Standard Shape)	ASP1-D0060D-CY6C4U2-FL (Flat Shape)
Sensing Range	200 mm	60 mm
Angle of Divergence	Approx. 5°	Approx. 38°
Light spot size	13x13mm @ 150mm	35mm @ 50mm
Light Source	LED Red	
Connecting Cable	PVC, 2m, pre-stripped, can be shortened to desired length	
Housing	Glass fiber reinforced plastic	
Circuit Protection	Reverse polarity protected	
Ambient Temperature	Operating: -25...55°C (-13...131°F), Storage: -40...70°C (-40...158°F)	
Enclosure Rating	IP 66 / NEMA 4	
Mounting Bracket	Included	—————
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)	
Voltage With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure	
Insulation Resistance	>20M Ω , with 500V DC megger between all supply terminals connected together and enclosure	
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x, y and z directions for 30min	
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Weight	approx. 23g	approx. 20g

Convergent Mode	ASP1-C0035D-CY6C4U2-4	ASP1-C0030D-CY6C4U2-1
Focus	16 mm	
Light spot size	1x4 mm @ 16 mm	1x1 mm @ 16 mm
Sensing Range	6...35 mm(White 90%) 12...19 mm(Black 6%)	3...30 mm (White 90%) 13...22 mm (Black 6%)
Light Source	LED Red	
Connecting Cable	PVC, 2m, pre-stripped, can be shortened to desired length	
Housing	Glass fiber reinforced plastic	
Circuit Protection	Reverse polarity protected	
Ambient Temperature	Operating: -25...55°C (-13...131°F), Storage: -40...70°C (-40...158°F)	
Enclosure Rating	IP 66 / NEMA 4	
Mounting Bracket	Included	
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)	
Voltage With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure	
Insulation Resistance	>20M Ω , with 500V DC megger between all supply terminals connected together and enclosure	
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x, y and z directions for 30min	
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Weight	approx. 20g	

O: SEPARATE
AMPLIFIER

Specifications (Mark Sensor/Thru-beam Mode)

Mark Sensor Mode	ASP1-M0016D-CY6C4U2-4	ASP1-M0016D-CY5C4U2-4	ASP1-M0016D-CY6C4U2-1	ASP1-M0016D-CY5C4U2-1
Focus	16 mm			
Light spot size	1x4 mm @ 16 mm		1x1 mm @ 16 mm	
Light Source	LED Red	LED Green	LED Red	LED Green
Sensing Range	16mm 2mm			
Connecting Cable	PVC, 2m, pre-stripped, can be shortened to desired length			
Housing	Glass fiber reinforced plastic			
Circuit Protection	Reverse polarity protected			
Ambient Temperature	Operating: -25...55°C (-13...131°F), Storage: -40...70°C (-40...158°F)			
Enclosure Rating	IP 66 / NEMA 4			
Mounting Bracket	Included			
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)			
Voltage With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure			
Insulation Resistance	>20M Ω , with 500V DC megger between all supply terminals connected together and enclosure			
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x, y and z directions for 30min			
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each			
Weight	approx. 20g			

Thru-beam Mode	ASP1-T2000D-EY6C2L2 (Emitter) ASP1-T2000D-CY6C2U2 (Receiver)	ASP1-T0350D-EY6C2L2-FL (Emitter) ASP1-T0350D-CY6C2U2-FL (Receiver)
Sensing Range	2m (Standard shape)	350mm (Flat shape)
Light spot size	approx. 180mm@ 1.5m	approx. 200mm@300mm
Angle of Divergence	approx. 7° (SS) 18° (SE)	approx. 36° (SS) 20° (SE)
Light Source	LED Red	
Connecting Cable	PVC, 2m, pre-stripped, can be shortened to desired length	
Housing	Glass fiber reinforced plastic	
Circuit Protection	Reverse polarity protected	
Ambient Temperature	Operating: -25...55°C (-13...131°F), Storage: -40...70°C (-40...158°F)	
Enclosure Rating	IP 66 / NEMA 4	
Mounting Bracket	Included	————
EMC	IEC 60947-5-2, Parts 7.2.6.1.2.3 or RFI>3V/m(in 30-1000MHZ), EFT>1KV, ESD>4KV(contact)	
Voltage With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure	
Insulation Resistance	>20M Ω , with 500V DC megger between all supply terminals connected together and enclosure	
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x, y and z directions for 30min	
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x, y and z directions for six time each	
Weight	approx. 11g each.	

O: SEPARATE AMPLIFIER

ASP2 ASP5 ASP3 ASP4 SERIES

Amplifier's Specifications

ASP2/ASP5 Series

Part Number	ASP2(5)-A0000P-CX0C3U2	ASP2(5)-A0000P-CX0Q4UP	ASP2(5)-A0000N-CX0C3U2	ASP2(5)-A0000N-CX0Q4UP
Response Time/Frequency	<= 500 us / 1.0 kHz (standard mode); 200 us / 2.5 kHz (mark mode)			
Supply Voltage	10...30V DC (Ripple<=10%)			
Current Consumption (no load)	<=35 mA			
Output Current Max.	100 mA			
Output Type	PNP		NPN	
Output Voltage High/Low	Vs - (<=1.5V) / approx. 0V		approx. Vs. / <=1.5V.	
Operation Mode	Light-ON / Dark-ON switching selectable via switch			
Connection	Cable	M8 4-pin connector	Cable	M8 4-pin connector
Connecting Cable	PVC,2m,3 x 24AWG	see accessories	PVC,2m,3 x 24AWG	see accessories
Housing	Glass fiber reinforced plastic			
Enclosure Rating	IP 50			
Circuit Protection	Outputs short circuit and over current protected, inputs, outputs, and Vs reverse polarity protected			
Time Settings	40 ms (fixed)			
Ambient Temperature	Operating:-25°C...55°C, Storage: -40°C...70°C			
EMC	IEC 801			
Voltage With Stand Ability	IEC 60947-5-2, Part 8.3.3.4 or 500VDC for one min, between all supply terminals connected together and enclosure			
Insulation Resistance	>20M Ω , with 500V DC megger between all supply terminals connected together and enclosure			
Vibration Resistance	IEC 60947-5-2, Part 7.4.2 or 10-55HZ, 1.0mm amplitude in x , y and z directions for 30 min			
Shock Resistance	IEC 60947-5-2, Part 7.4.1 or 30g, 11ms in x , y and z directions for six time each			
Mounting Bracket	Included			
Weight	approx. 30 g for plug versions, 70 g for cable versions			

O: SEPARATE
AMPLIFIER

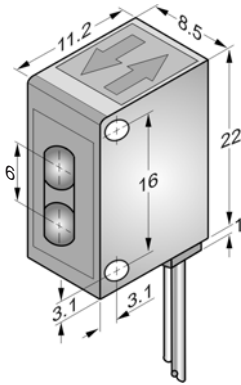
ASP3 ASP4 Series

Type	ASP3 Series ASP3-A0000N-CX0T6U / ASP3-A0000P-CX0T6U	ASP4 Series ASP4-A0000U-CX0T8U
Power supply	10 to 30VDC	12 to 240VDC/24 to 240VAC
Current/Power consumption	45mA max	1.5VA max
Response time	1 ms	12ms
Sensitivity adjustment	By 1-turn trimmer(240°)	
Operation mode	Light-ON/Dark-ON (switch selectable)	
Indicator	Output: Red LED, Stable operation: Green LED	
Control output	NPN open-collector:200mA(40V)max Residual voltage:1V max.	SPST-NO Relay contact 250 VAC 2A (1a;resistive load)
Stability/disconnection alarm output	NPN open-collector:200 mA(40V)max Residual voltage:1V max	_____
Operating Environment	Temperature: -10°C ... +50°C (No freezing), Humidity: 35% ... 85% RH	
Weight (approx.)	50g	120g

Miniature Sensor Head Dimensions (Unit: mm)

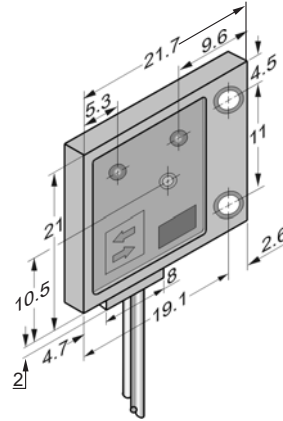
Diffuse Mode (Standard shape)

ASP1-D0200D-CY6C4U2



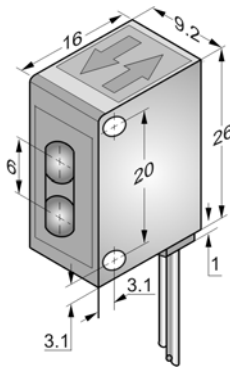
Diffuse Mode (Flat shape)

ASP1-D0060D-CY6C4U2-FL



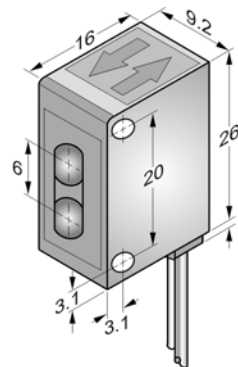
Convergent Mode

ASP1-C0035D-CY6C4U2-4 ASP1-C0035D-CY5C4U2-4
 ASP1-C0030D-CY6C4U2-1 ASP1-C0030D-CY5C4U2-1



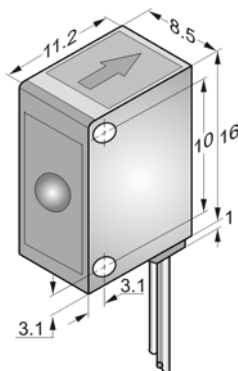
Mark Sensor

ASP1-M0016D-CY6C4U2-4 ASP1-M0016D-CY5C4U2-4
 ASP1-M0016D-CY6C4U2-1 ASP1-M0016D-CY5C4U2-1



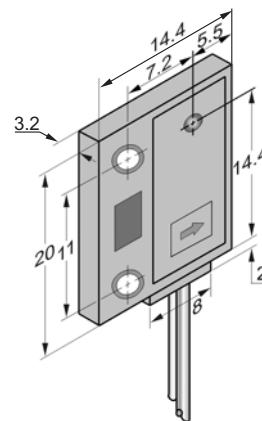
Thru-beam Mode (Standard shape)

ASP1-T2000D-EY6C2L2 (Emitter)
 ASP1-T2000D-CY6C2U2 (Receiver)



Thru-beam Mode (Flat shape)

ASP1-T0350D-EY6C2L2-FL (Emitter)
 ASP1-T0350D-CY6C2U2-FL (Receiver)



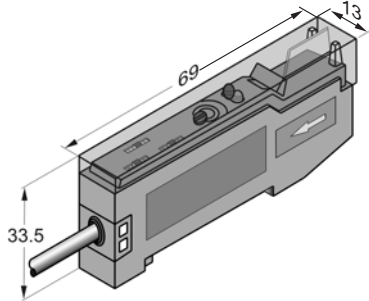
O: SEPARATE AMPLIFIER

ASP2 ASP5 ASP3 ASP4 SERIES

Separate Amplifier & Mounting Bracket Dimensions (Unit: mm)

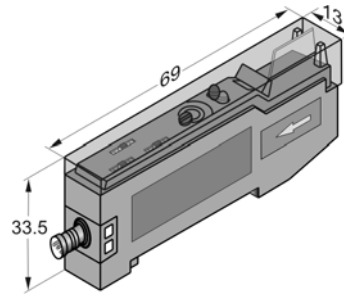
ASP2/ASP5 Series (Cable type)

ASP2(5)-A0000N-CX0C3U2
ASP2(5)-A0000P-CX0C3U2



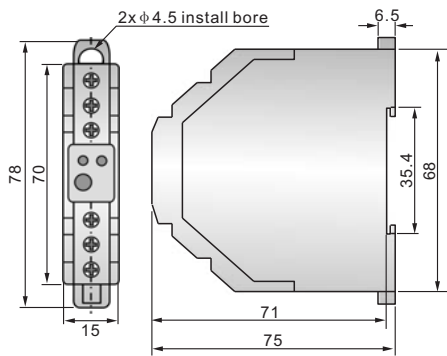
ASP2/ASP5 Series (Pico-style connector)

ASP2(5)-A0000N-CX0Q4UP
ASP2(5)-A0000P-CX0Q4UP



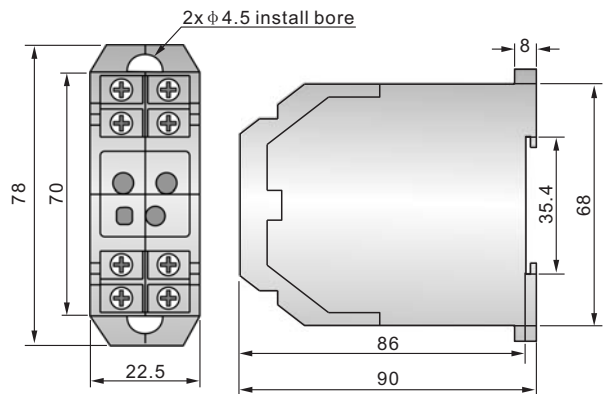
ASP3 Series

ASP3-A0000N-CX0T6U / ASP3-A0000P-CX0T6U



ASP4 Series

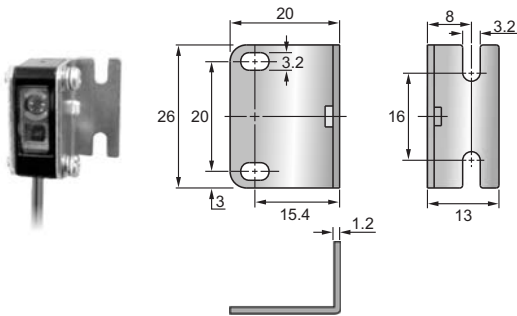
ASP4-A0000U-CX0T6U



O: SEPARATE AMPLIFIER

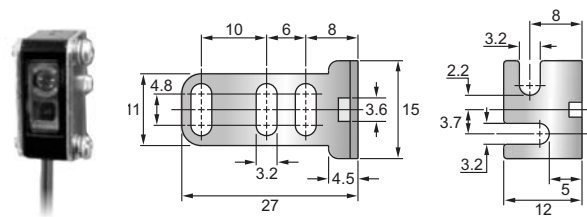
ASP1-A1 (ASP1 Series mounting bracket-optional)

For Convergent Mode & Mark Sensor type sensor



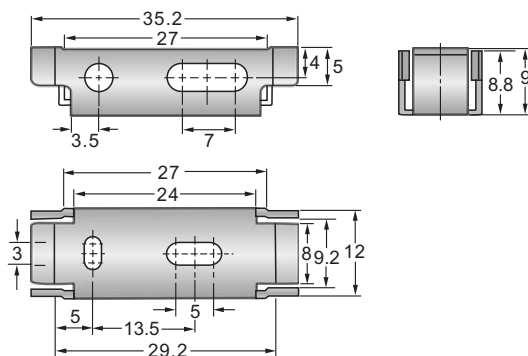
ASP1-A2 (ASP1 Series mounting bracket-optional)

For ASP1-T2000.../ASP1-D0200... type sensor



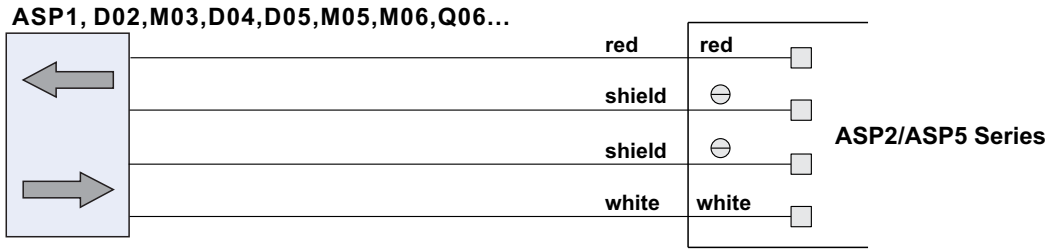
MB-3512 (Amplifier Mounting Bracket-optional)

For ASP2 / ASP5 Series Amplifier

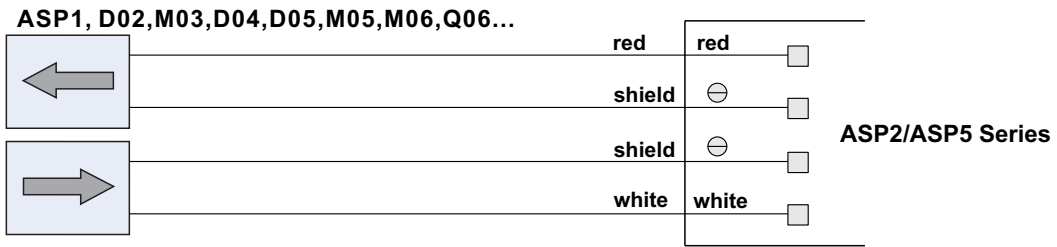


Sensor Head with Amplifier Connection Diagrams

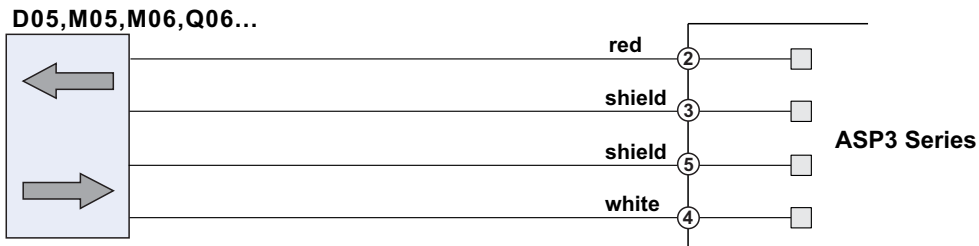
Diffuse & Retroreflective Type Sensor Head for ASP2/ASP5



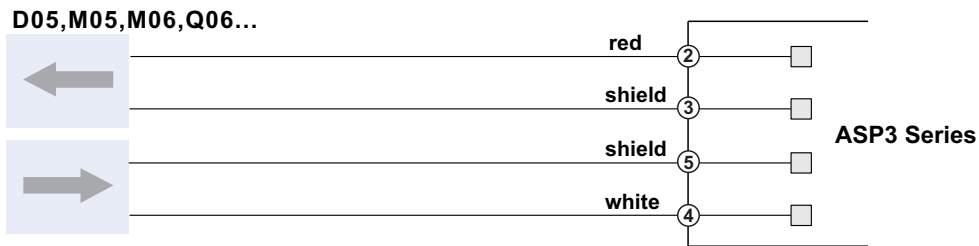
Thru-beam Type Sensor Head for ASP2/ASP5



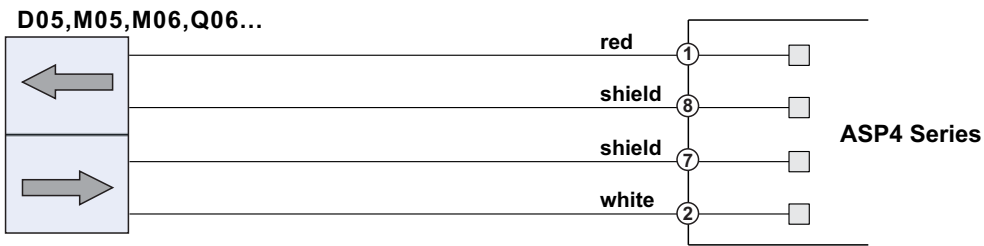
Diffuse & Retroreflective Type Sensor Head for ASP3



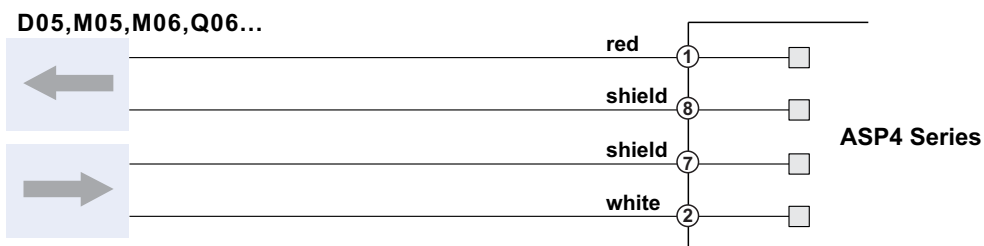
Thru-beam Type Sensor Head for ASP3



Diffuse & Retroreflective Type Sensor Head for ASP4



Thru-beam Type Sensor Head for ASP4



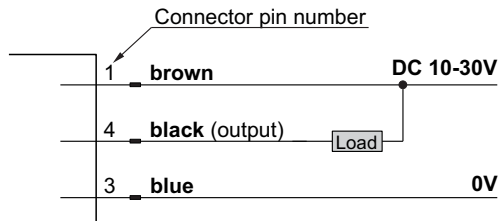
O: SEPARATE AMPLIFIER

ASP2 ASP5 ASP3 ASP4 SERIES

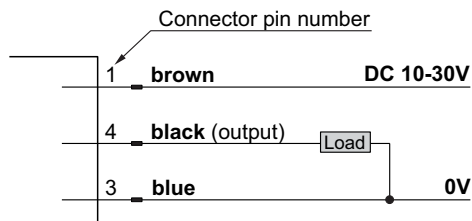
Amplifier Output Connection Diagrams

ASP2/ASP5 Series Connection diagram

NPN Output

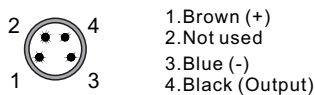


PNP Output



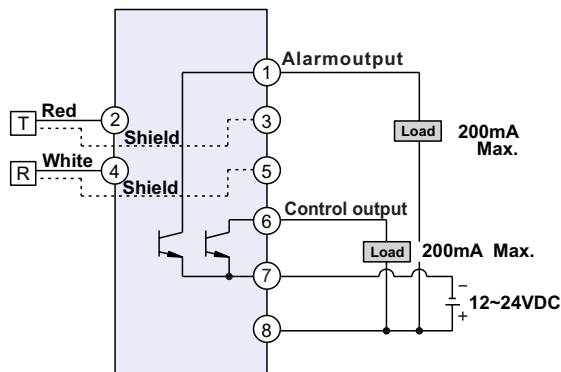
Connector face view

Pico-Style

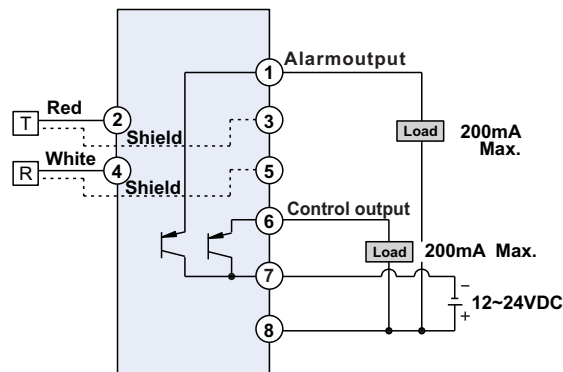


ASP3, ASP4 Series Connection Diagram

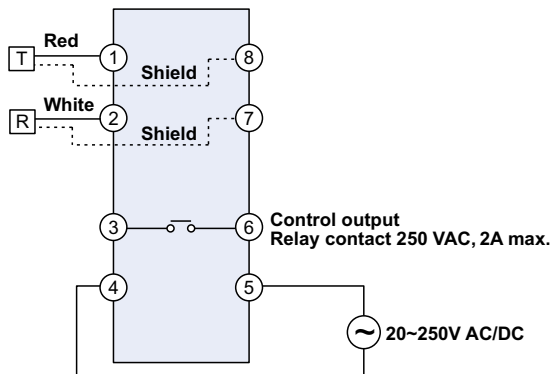
ASP3-A0000N-CX0T6U



ASP3-A0000P-CX0T6U



ASP4-A0000U-CX0T8U

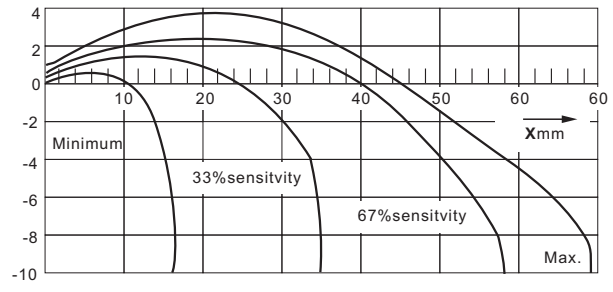


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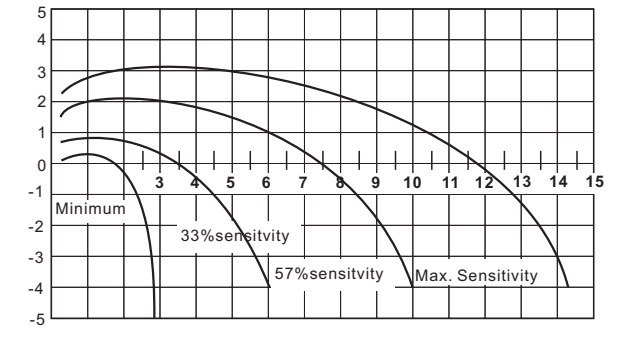
D02 M03 D04 D05 M05 M06 Q06 SERIES

Sensor Head Sensing Characteristics (Typical)

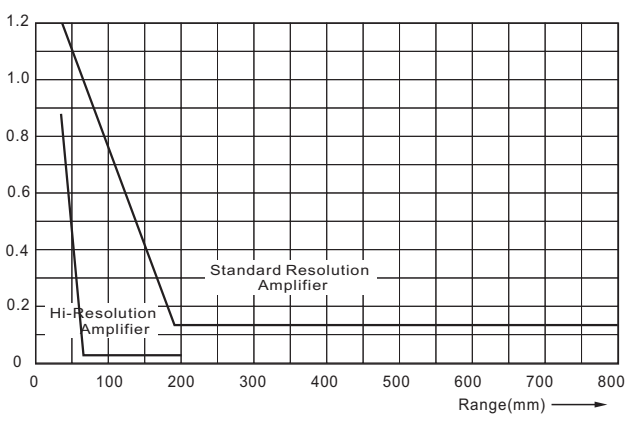
Diffuse Mode (D05, M06, Q06) Sensing Range=63mm



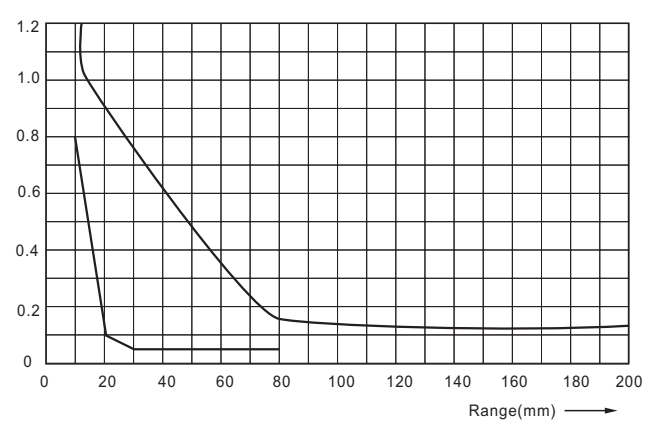
Diffuse Mode (D02, M03) Sensing Range=12mm



Opposed Mode (D04, D05, M05, Q06) Sn=800mm



Opposed Mode (D02, M03) Sn=200mm

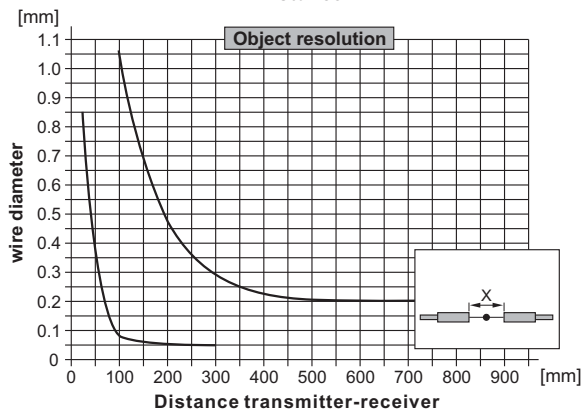
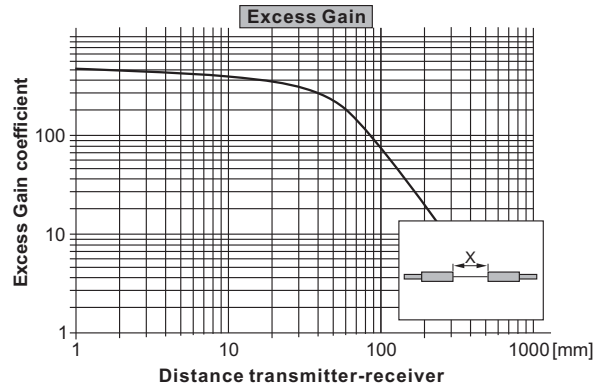
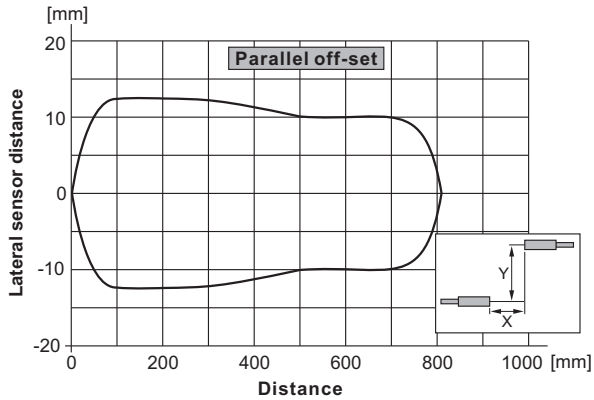


O: SEPARATE AMPLIFIER

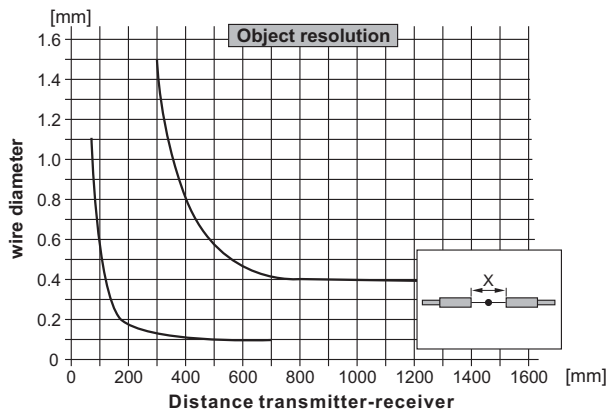
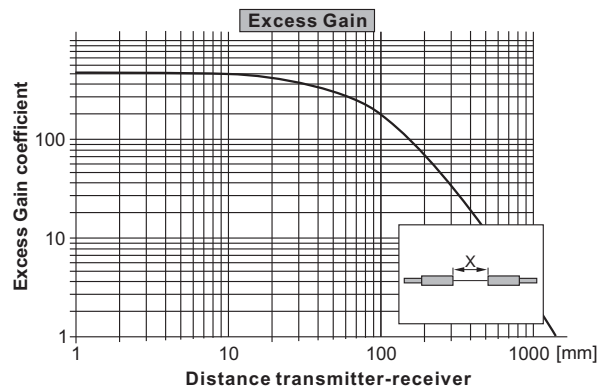
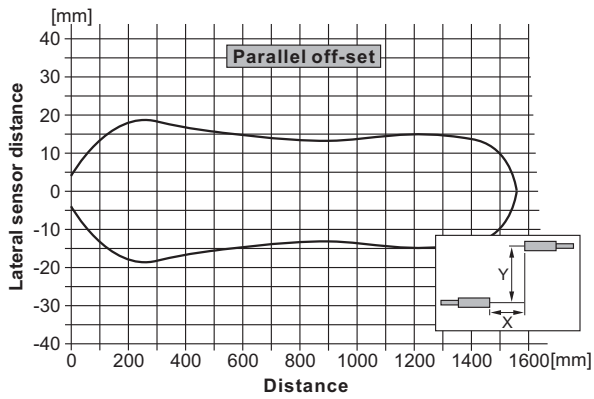
D02 M03 D04 M05 SERIES

Sensor Head Sensing Characteristics (Typical)

D02, M03 Series (Thru-beam Mode, sensing distance=800mm)



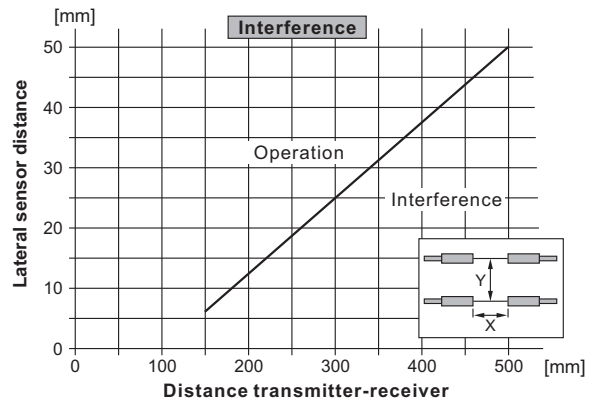
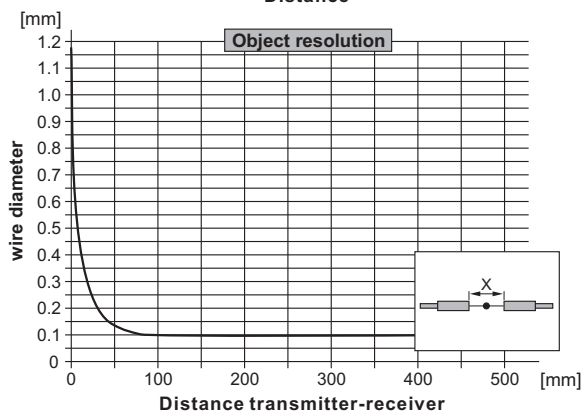
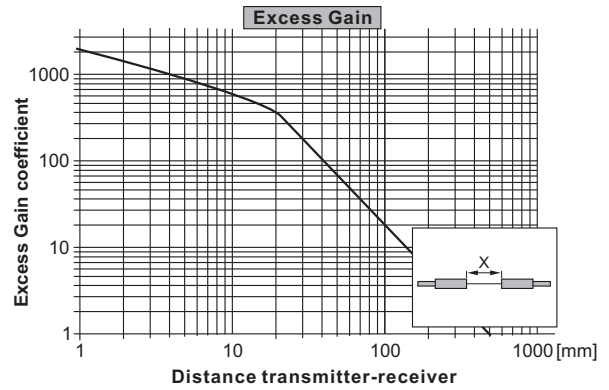
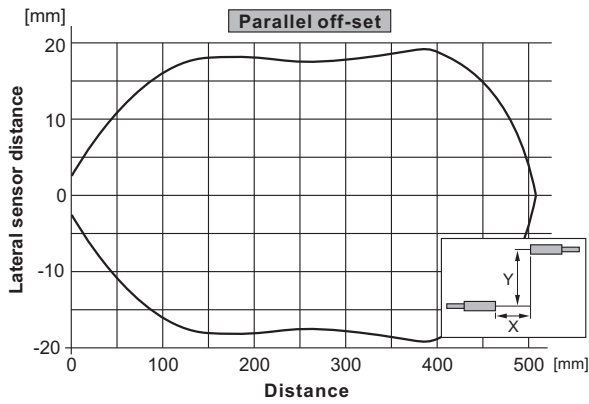
D04, M05 Series (Thru-beam Mode, sensing distance=1500mm)



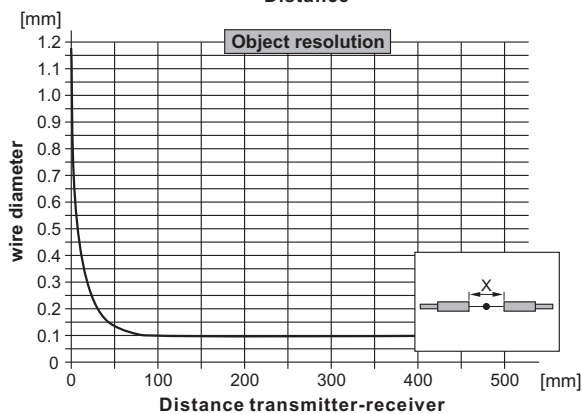
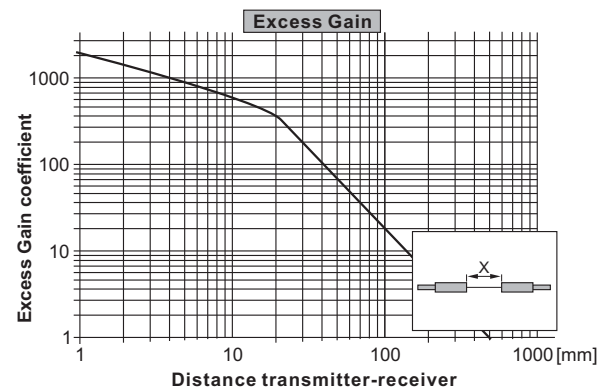
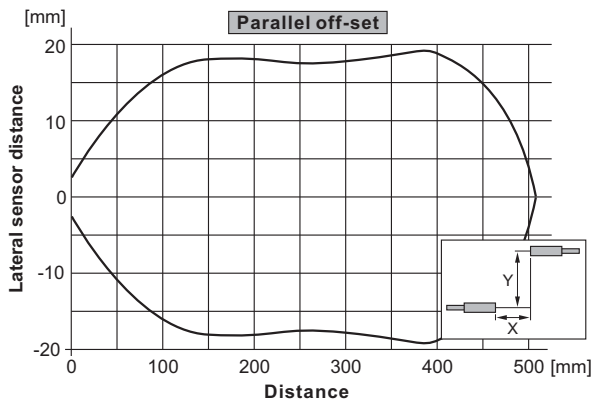
O: SEPARATE
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Sensor Head Sensing Characteristics (Typical)

D03 Series (Side sensing type:D03S-T0500D-EY6C4U1, D03S-T0500D-CY6C4U1)



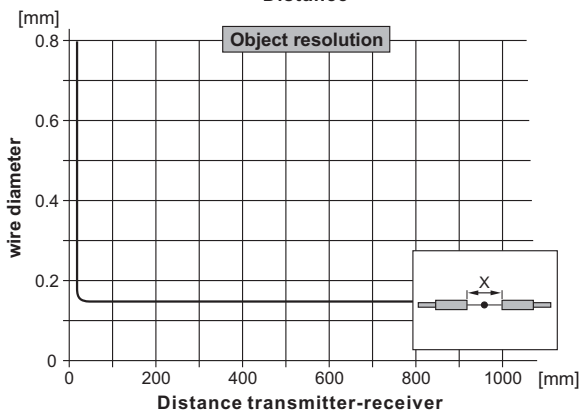
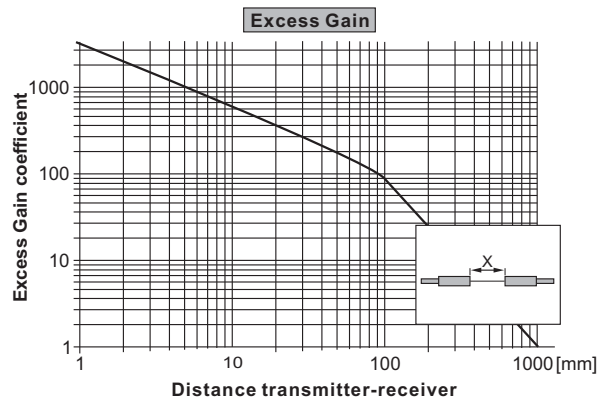
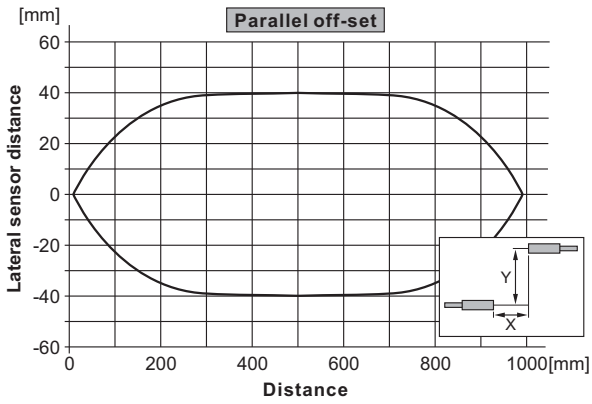
M03 Series (Side sensing type:M03S-T0500D-EY6C4U1, M03S-T0500D-CY6C4U1)



O: SEPARATE AMPLIFIER

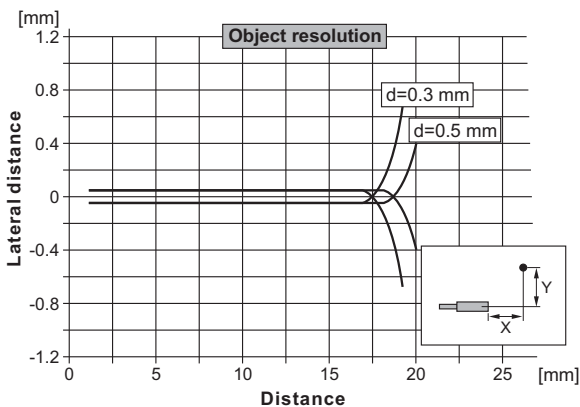
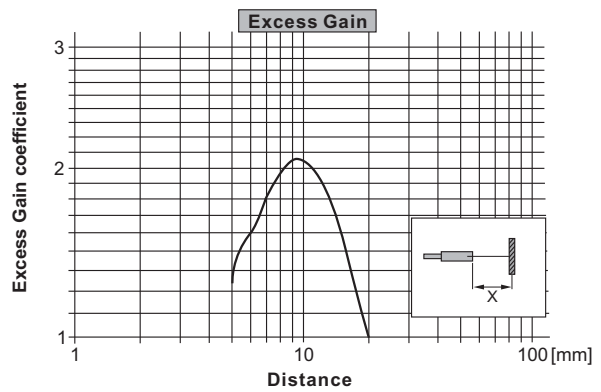
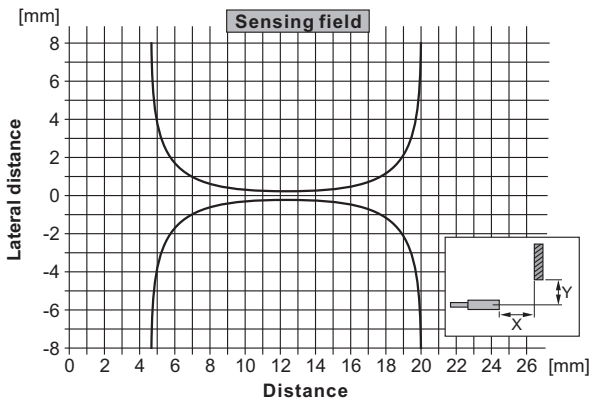
Sensor Head Sensing Characteristics (Typical)

M05 Series (Side sensing type:M05S-T1000D-EY6C4U1, M05S-T1000D-CY6C4U1)



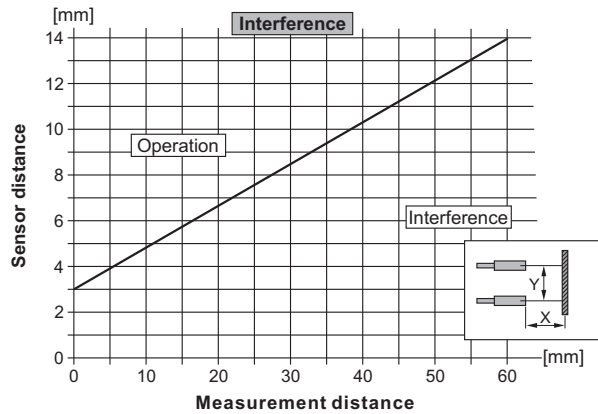
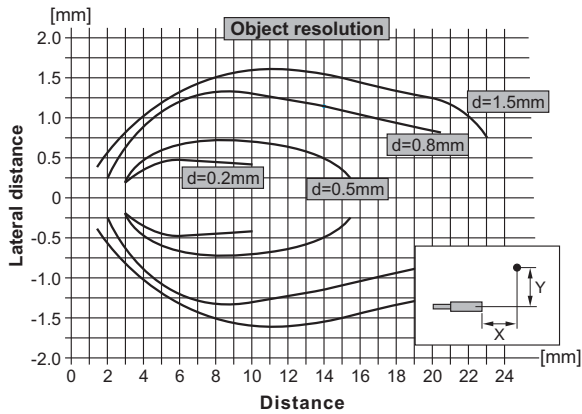
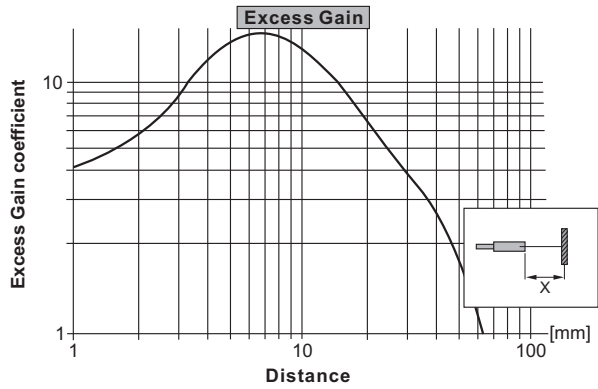
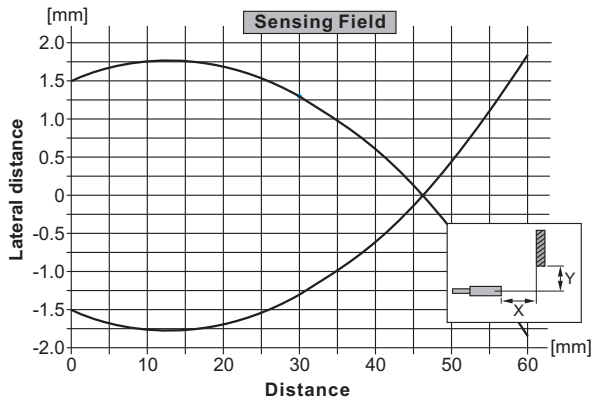
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Q03 Series (Q03B-D0020D-CY6C4U1), Diffuse Mode, Sensing distance=20mm

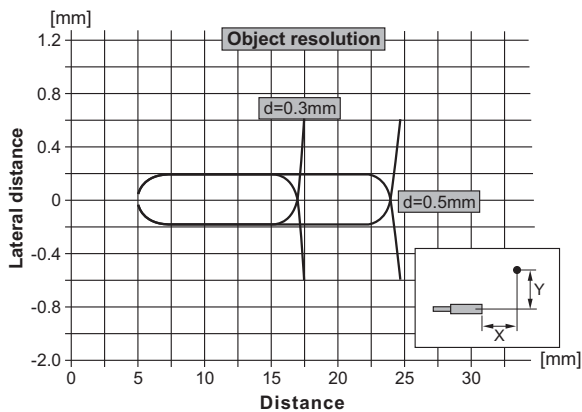
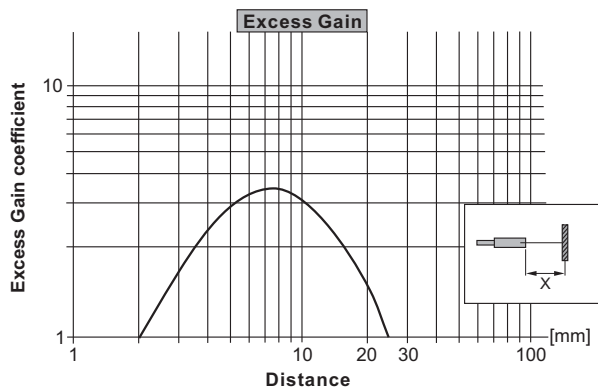
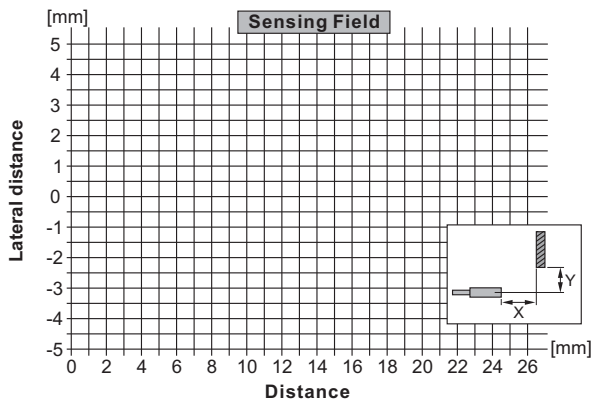


Sensor Head Sensing Characteristics (Typical)

R13 Series (R13A-D0060D-CX6C4U1, R13A-D0060D-CY6C4U1), Diffuse Mode, Sn=3.5...60 mm



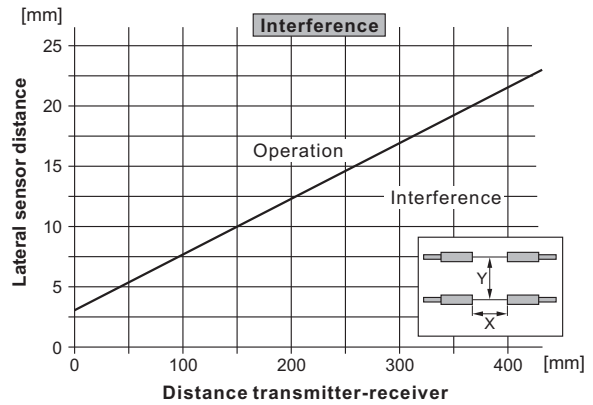
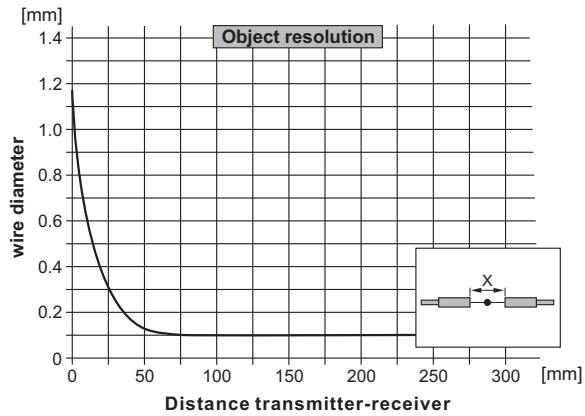
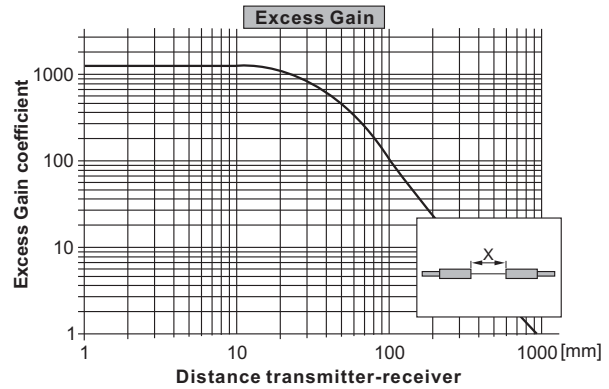
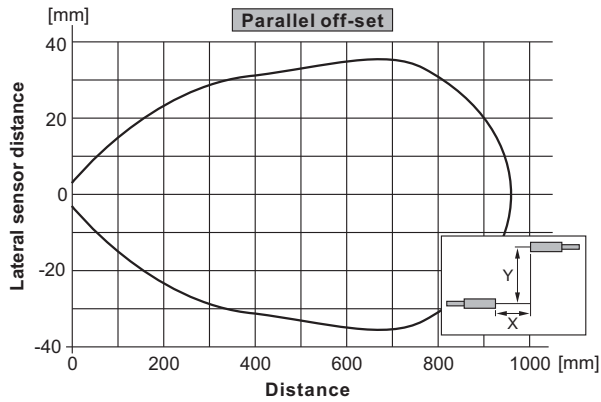
R13 Series (R13A-D0025D-CX6C4U1, R13A-D0025D-CY6C4U1), Diffuse Mode, Sn=2...25 mm



O: SEPARATE AMPLIFIER

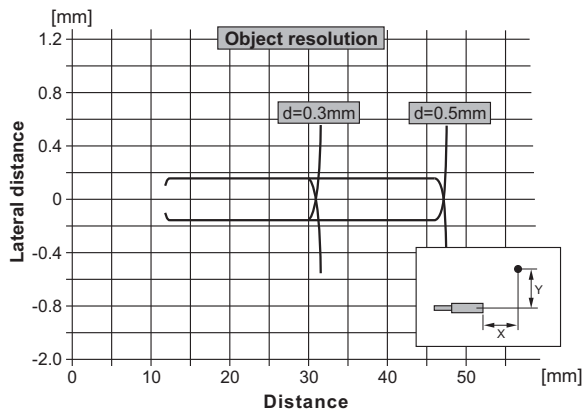
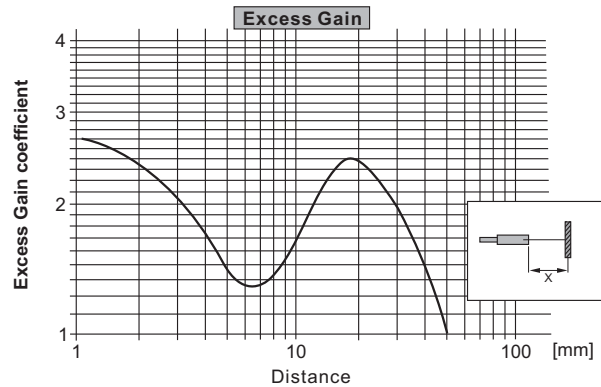
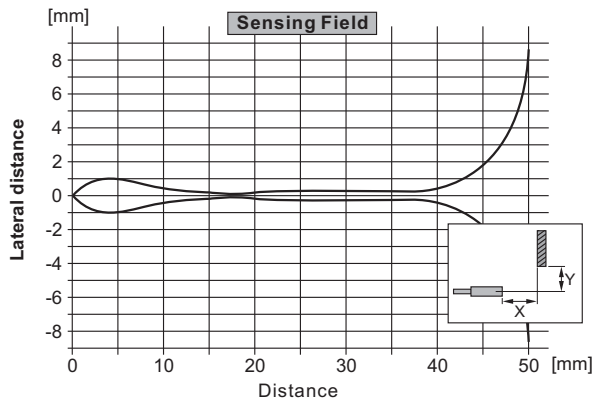
Sensor Head's Sensing Characteristics (Typical)

R13 Series (Thru-beam Mode, Sensing distance=500 mm)



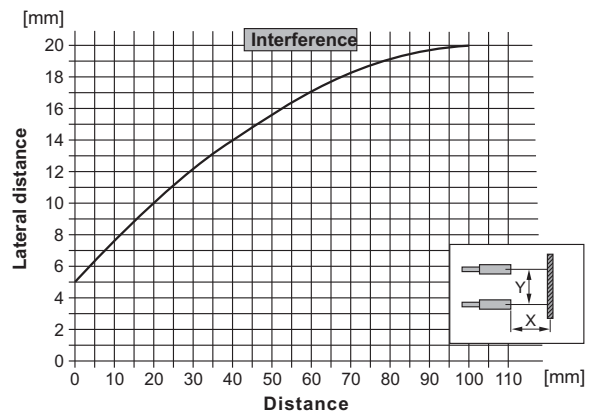
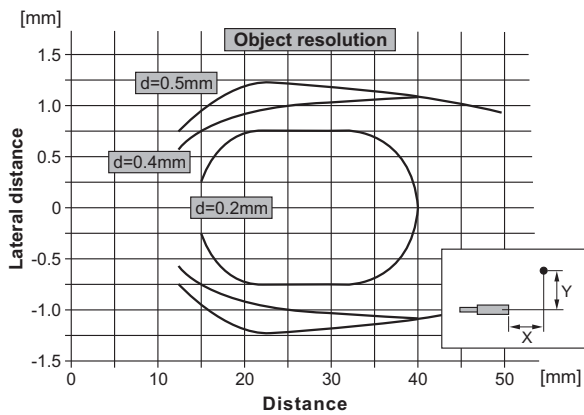
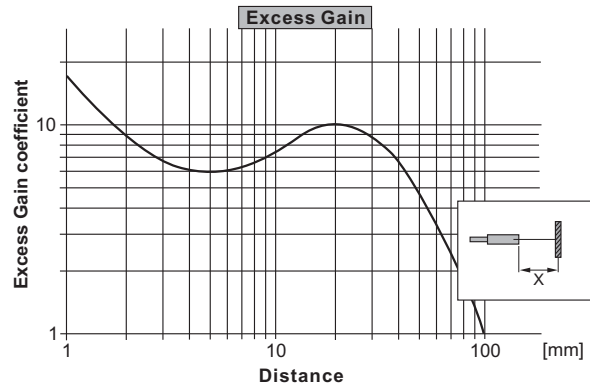
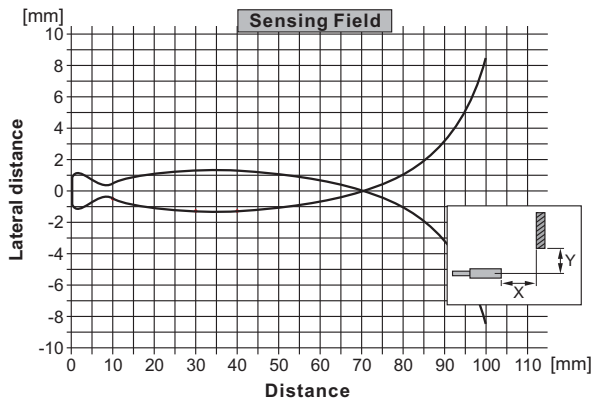
O: SEPARATE
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R15 Series (R15A-D0050D-CX6C4U1, R15A-D0050D-CY6C4U1), Diffuse Mode, Sn=1...50 mm

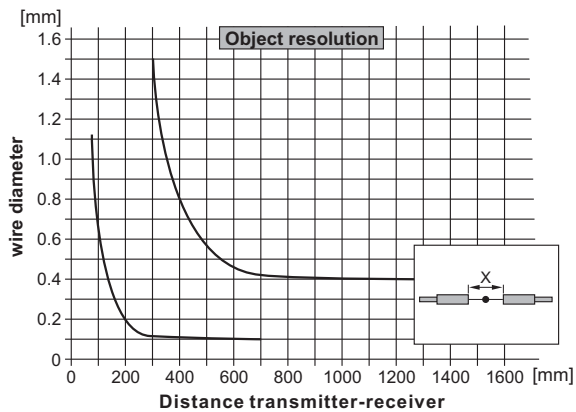
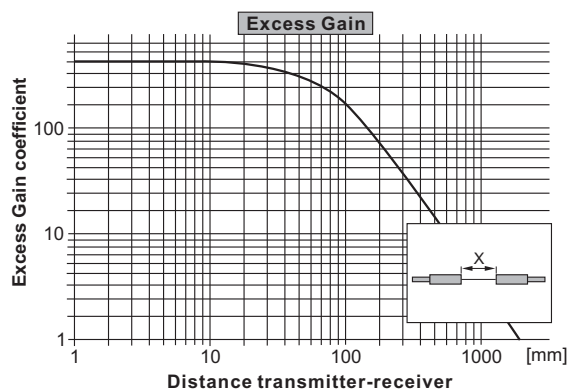
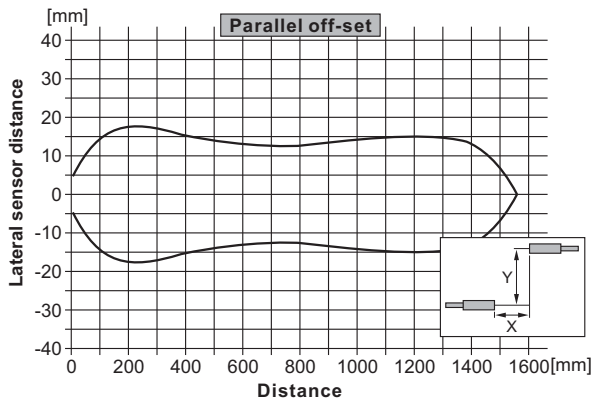


Sensor Head Sensing Characteristics (Typical)

R15 Series (R15A-D0100D-CX6C4U1, R15A-D0100D-CY6C4U1), Diffuse Mode, Sn=3.5...100 mm



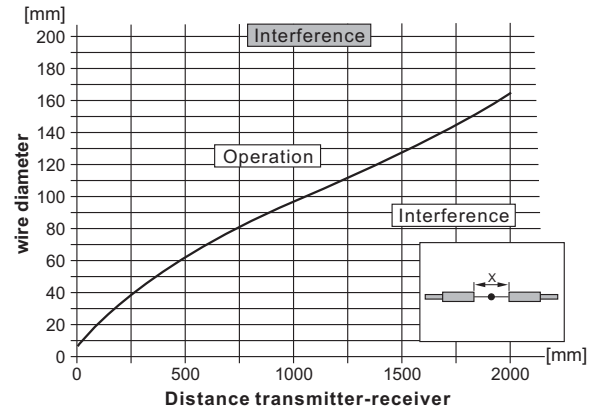
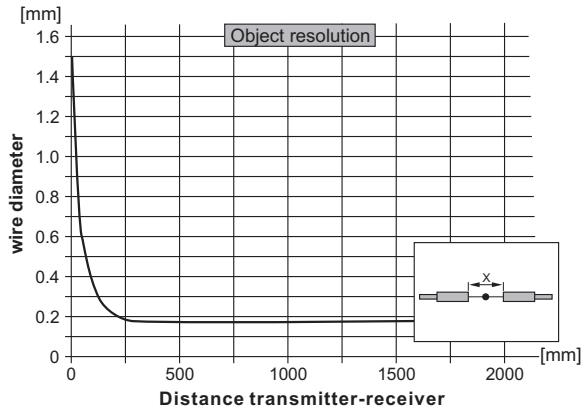
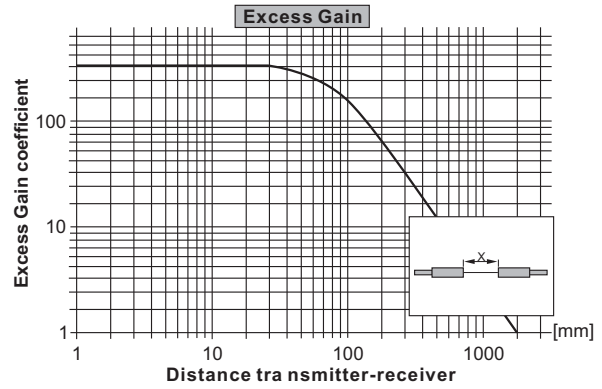
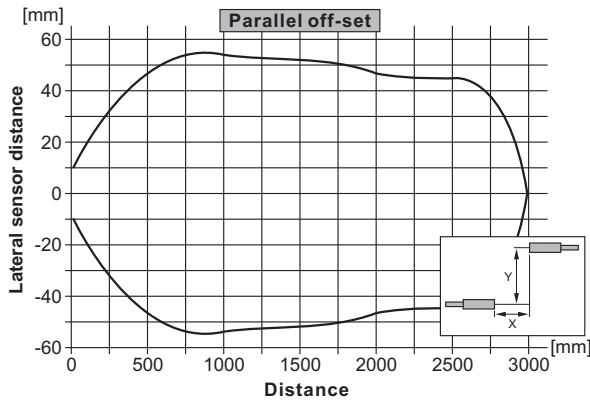
R15 Series (Thru-beam Mode, Sensing distance=1500 mm)



O: SEPARATE AMPLIFIER

Sensing Characteristics (Typical)

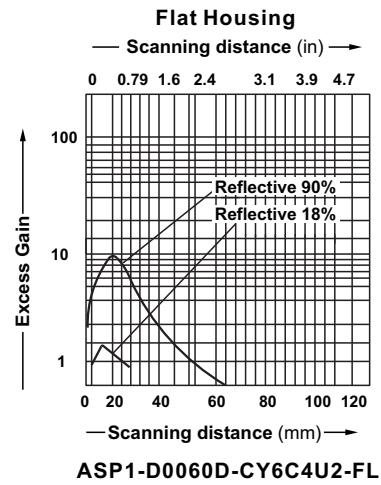
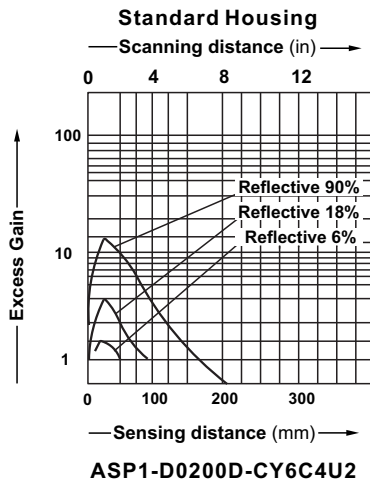
R15 Series (Thru-beam Mode, Sensing distance=2000 mm)



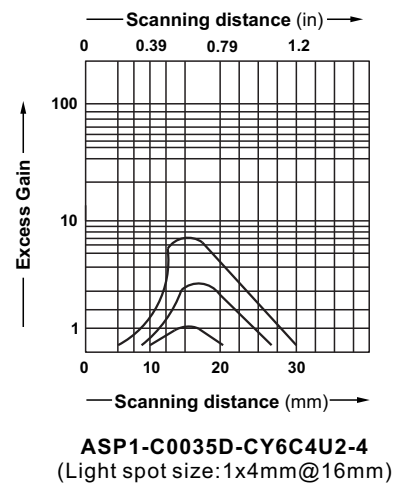
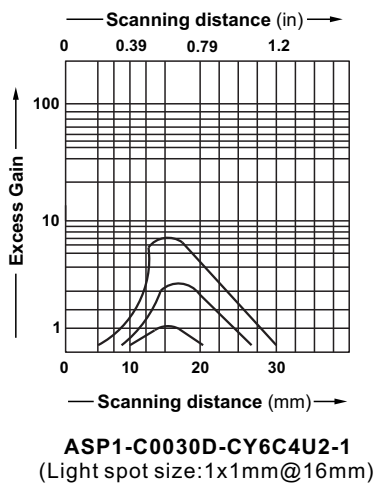
O: SEPARATE AMPLIFIER

ASP1 Series Sensing Characteristics (Typical)

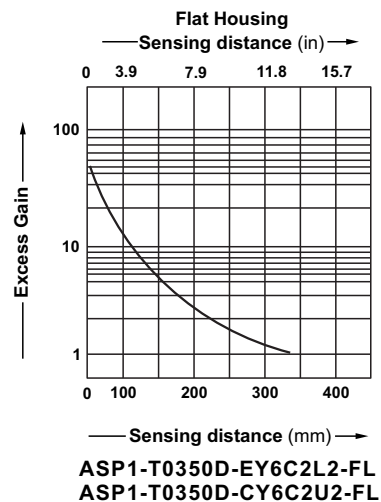
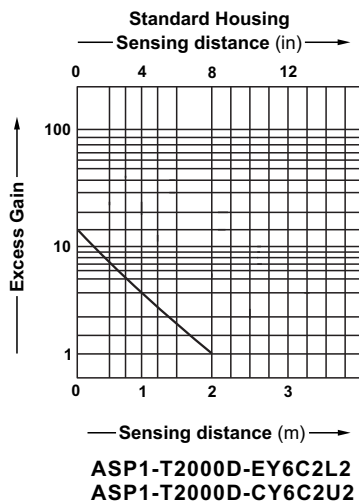
Diffuse Mode



Convergent Mode



Thru-beam Mode



O: SEPARATE AMPLIFIER

Separate Amplifier

This Unit is designed to provide a stabilized DC-Power and output signal control for the Amplifier Built-in type photoelectric sensor.



FEATURES

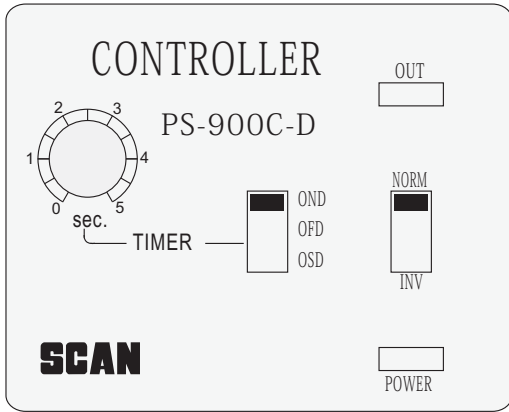
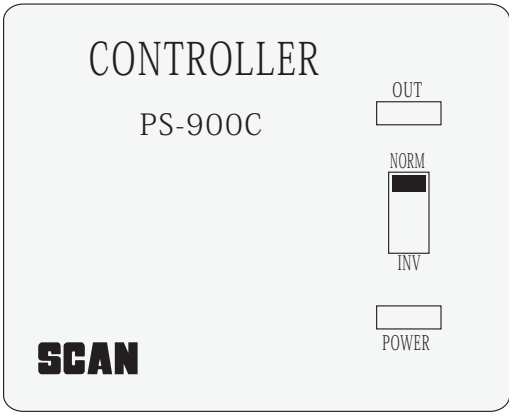
- Converting or inverting sensor output signal (relay contact output)
- Two basic models available: **PS-900C** and **PS-900C-D** the latter has time delay functions (ON - DELAY, OFF - DELAY and ONE - SHOT).
- Wide power input voltage: 110 - 120V and 220 - 240VAC.
- Easy-to-handle plug-in type.
- External synchronizing input signal.

Technical Data

Items	Models	PS-900C	PS-900C-D
Supply voltage		110V to 120V/ 220V to 240V 10% AC	
Power consumption		8 VA	
DC power output		12V 10% DC, 100mA max.	
Output control		Relay contact SPDT 3A resistive at 250 VAC	
External synchronization		Yes	
Response time		<20ms	
Output mode		Normal or Invert (NORM / INV.)	
Delay timer		NO	Yes (0 to 5 sec.)
Power indicator		Green LED	
Output indicator		Red LED, turns on when output relay is energized (NORM mode)	
Enclosure		Blue resin	
Ambient temperature/ Humidity		-10 °C... +50°C / less than 85% RH	
Insulating resistance		More than 10 M Ω with 500VDC megger between AC - input and DC-output terminals	
Dielectric resistance		1,500V AC for one minute between AC - input and DC - output terminals	
Net weight / Accessories		Approx. 430g /A piece of socket with terminals and a pair of fixing clamps	

Separate Amplifier

Panel Face

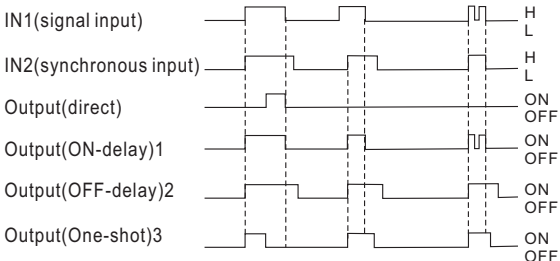


Function Instruction and Adjustment

Front Diagram	Condition	Functional Instruction and Adjustment
	—	Set as required. NORM means normal Mode and INV means inverse mode.
	—	The red LED indicates the status of output.
	—	The green LED indicates the status of power on.
	—	The functions of OND, OFD, OSD depend upon the requirement, the slide switch is set at the position required.
	Complete the selection of the OND, OFD, OSD.	This is a time setting trimmer, the time range is 0 to 5 sec.

Delay Instruction

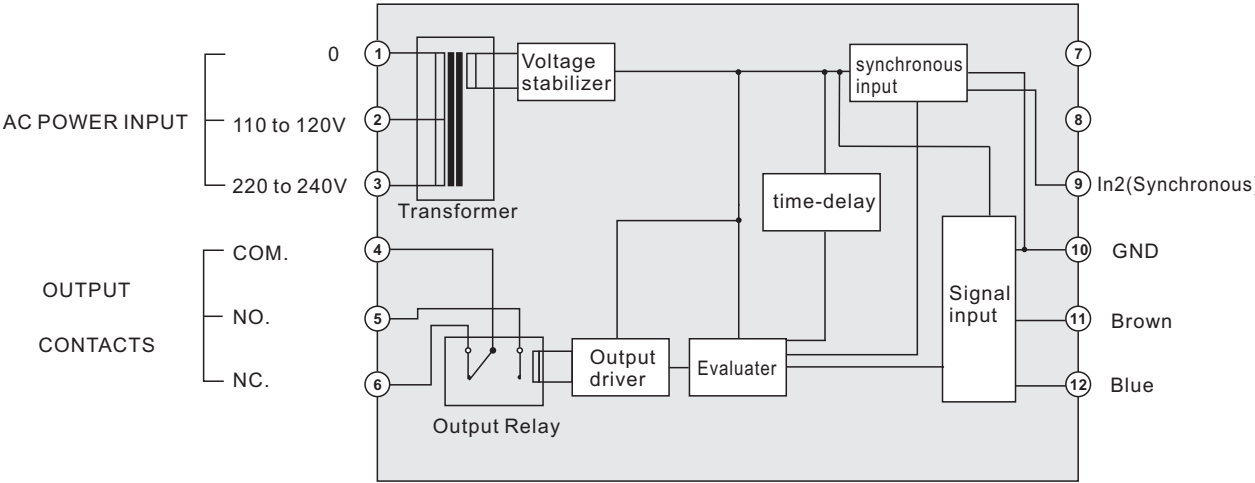
- ON-Delay** Outputs for T seconds after the rising edge of the AND (IN1 and IN2) output, and turns off at the falling edge of the AND output.
- OFF-Delay** Continues output for T seconds after the the AND (IN1 and IN2) output turns off
- One-Shot** Outputs for T seconds after the rising edge of the AND(IN1 and IN2)output.



O: SEPARATE AMPLIFIER

Separate Amplifier

Functional Diagram



Output circuit	Wiring																														
<p>PS-900C, PS-900C-D</p> <p>Relay Contact Output</p> <p>NO.</p> <p>NC.</p> <p>COM.</p> <p>Contact capacity: 3A resistive at 250VAC</p>	<p>PS-900C, PS-900C-D</p> <p>Proximity sensor</p> <table border="1"> <tr> <td>7</td> <td>8</td> <td>9</td> <td>10</td> <td>11</td> <td>12</td> </tr> <tr> <td>GND</td> <td>+12 V</td> <td>SYN</td> <td>GND</td> <td>12V</td> <td>IN</td> </tr> <tr> <td>0</td> <td>110V</td> <td>220V</td> <td>COM</td> <td>NO</td> <td>NC</td> </tr> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td colspan="3">AC INPUT</td> <td colspan="3">RELAY OUT</td> </tr> </table>	7	8	9	10	11	12	GND	+12 V	SYN	GND	12V	IN	0	110V	220V	COM	NO	NC	1	2	3	4	5	6	AC INPUT			RELAY OUT		
7	8	9	10	11	12																										
GND	+12 V	SYN	GND	12V	IN																										
0	110V	220V	COM	NO	NC																										
1	2	3	4	5	6																										
AC INPUT			RELAY OUT																												
Dimensions (Unit: mm)																															
<p>Control Unit PS-900C-D</p> <p>65</p> <p>62</p> <p>60</p> <p>113</p> <p>103.5</p>	<p>Socket with terminals</p> <p>50</p> <p>60</p> <p>62</p> <p>19</p>																														

O: SEPARATE AMPLIFIER

Separate Amplifier

The Unit is designed to work with photoelectric sensor heads. The amplifier generates the transmitter pulses for the connected photoelectric sensors and amplifies their signals. The electric output of the amplifier drives relay directly.



FEATURES

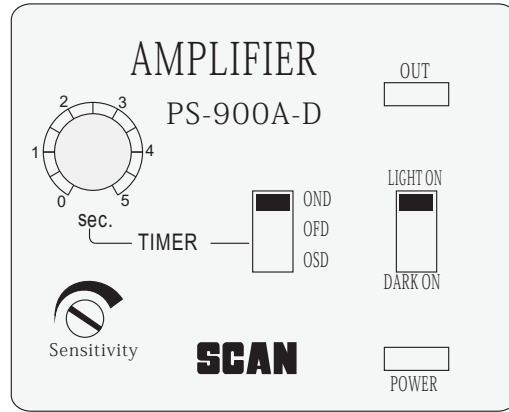
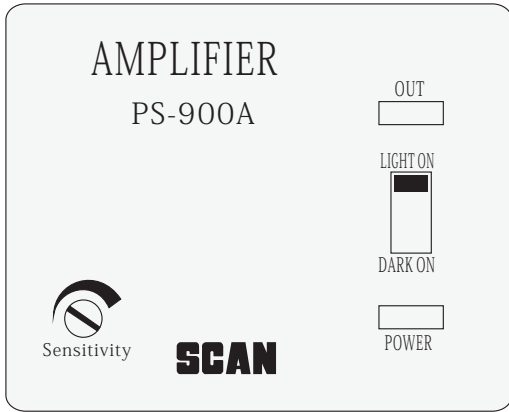
- Two basic models available: PS-900A and PS-900A-D the latter has time delay functions (on - delay, off - delay and one shot).
- Light-on and Dark-on changeable.
- Wide power input voltage: from 110 to 120V and 220 to 240VAC.
- Easy - to - handle plug - in method.
- External synchronizing input signal acceptable.
- Operating indicator and sensitivity adjustment.
- Special sensor head on request.

Technical Data

Items	Models	PS-900A	PS-900A-D
Supply voltage		110V to 120V 220V to 240V 10% AC	
Power consumption		8 VA	
Control output		Relay contact SPDT 3A resistive at 250 VAC	
Output operation		Light-on and Dark-on changeable.	
External synchronization		Yes	
Response time		<20ms	
Delay time		NO	Yes (0 to 5 sec.)
Power indicator		Green LED	
Output indicator		Red LED, turns on when output relay is energized(Light-on mode)	
Enclosure		Blue colored resin	
Ambient temperature/ humidity		-10 to +50°C / less than 85%RH	
Insulating resistance		More than 10 MΩ with 500VDC megger between AC - input, DC-output terminals	
Dielectric resistance		1,500V AC for one minute between AC - input and DC - output terminals	
Net weight		Approx. 430g	
Accessories		Socket with terminals and fixing clamps	

Separate Amplifier

Panel Diagram



Function Instruction and Adjustment

Items	Condition	Functional Instruction and Adjustment
 	—	Depending upon the requirement. LIGHT-ON means the relay is energized when light strikes the receiver. And DARK-ON is inverted to LIGHT -ON mode.
	—	The red LED indicates the status of output.
	—	The green LED indicates the status of power on.
	—	The functions with OND, OFD, OSD is the following in details. Depending upon the requirement, the slide switch is set at the position required.
	Finish the selection of the OND, OFD, OSD.	This is a time setting trimmer, the time range is from 0 to 5 seconds.
 Sensitivity	Light-ON Mode The red LED is on	Turn counterclockwise(reduces sensitivity)until the LED turns off, then turn the potentiometer clockwise until the LED turns on, turn another half turn clockwise.
	Dark-ON Mode The red LED is Off	Turn clockwise (increases sensitivity) until the LED turns on, turn the potentiometer counterclockwise until the LED turns off, turn another half turn counterclockwise.

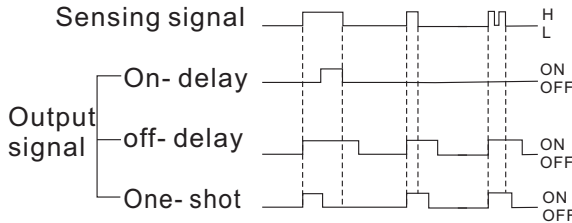
O: SEPARATE AMPLIFIER

Separate Amplifier

Additional Functions

• Delay Timer

You may choose the delay function according to your purpose of controlling the output signal of the beam sensors. This function is incorporated in the PS-900A-D model.



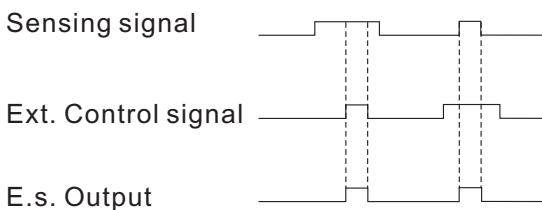
ON-Delay The output signal rises after a preset time, and drops immediately when the input signal is removed.

OFF-Delay The output signal rises immediately upon the receipt of sensing signal and is kept by the preset time after the input sensing signal was removed.

One-Shot The output signal rises immediately upon the receipt of sensing signal and is kept by the preset time independent of the input signal.

• External Synchronizing

The terminal of the Ext. Sync. Function is provided on PS-900A and PS-900A-D.



The Ext. Sync. Signal interlocks the sensor output signal; the control unit develops the output when the input signal from the sensor and the Ext. Sync. Input signals are fed into the unit at the same time.

Relay Contact Output	Wiring Diagrams
<p>PS-900A, PS-900A-D</p> <p>Contact capacity: 3A resistive at 250VAC</p>	<p>PS-900A, PS-900A-D</p>
Dimensions (Unit: mm)	
<p>Control unit PS-900A/PS-900A-D</p>	<p>Socket with terminals PS-900A, PS-900A-D</p>