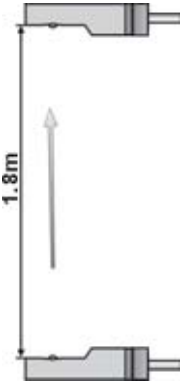
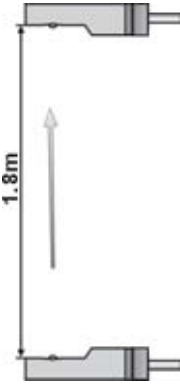


Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source : infrared 880nm  Opposed Mode Sensing Distance: 1.8m	2m Cable 	10-30V DC (10ms on/off)	Emitter	EP-T1800D-EY9C3L2
			NPN/PNP Light-ON	EP-T1800D-LY9C4U2
			NPN/PNP Dark-ON	EP-T1800D-DY9C4U2
		10-30V DC (1ms on/off)	Emitter	EP-T1800D-EY9C3L2-HS
			NPN/PNP Light-ON	EP-T1800D-LY9C4U2-HS
			NPN/PNP Dark-ON	EP-T1800D-DY9C4U2-HS
	9m Cable 	10-30V DC (10ms on/off)	Emitter	EP-T1800D-EY9C3L9
			NPN/PNP Light-ON	EP-T1800D-LY9C4U9
			NPN/PNP Dark-ON	EP-T1800D-DY9C4U9
		10-30V DC (1ms on/off)	Emitter	EP-T1800D-EY9C3L9-HS
			NPN/PNP Light-ON	EP-T1800D-LY9C4U9-HS
			NPN/PNP Dark-ON	EP-T1800D-DY9C4U9-HS
	Pico Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	Emitter	EP-T1800D-EY9P4LP
			NPN/PNP Light-ON	EP-T1800D-LY9P4UP
			NPN/PNP Dark-ON	EP-T1800D-DY9P4UP
		10-30V DC (1ms on/off)	Emitter	EP-T1800D-EY9P4LP-HS
			NPN/PNP Light-ON	EP-T1800D-LY9P4UP-HS
			NPN/PNP Dark-ON	EP-T1800D-DY9P4UP-HS
	Euro Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	Emitter	EP-T1800D-EY9P4LE
			NPN/PNP Light-ON	EP-T1800D-LY9P4UE
			NPN/PNP Dark-ON	EP-T1800D-DY9P4UE
		10-30V DC (1ms on/off)	Emitter	EP-T1800D-EY9P4LE-HS
			NPN/PNP Light-ON	EP-T1800D-LY9P4UE-HS
			NPN/PNP Dark-ON	EP-T1800D-DY9P4UE-HS

Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source : infrared:880nm		24-240V AC (10ms on/off)	Emitter (2-wire)	EP-T1800A-EY9C2L2
			SPST Solid-state Light-ON (2-wire)	EP-T1800A-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-T1800A-DY9C2U2
			SPST Solid-state Light-ON (3-wire)	EP-T1800A-LY9C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-T1800A-DY9C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	Emitter (2-wire)	EP-T1800C-EY9C2L2
	SPST Solid-state Light-ON (2-wire)		EP-T1800C-LY9C2U2	
	SPST Solid-state Dark-ON (2-wire)		EP-T1800C-DY9C2U2	
	 		24-240V AC (10ms on/off)	Emitter (2-wire)
		SPST Solid-state Light-ON (2-wire)		EP-T1800A-LY9C2U9
SPST Solid-state Dark-ON (2-wire)		EP-T1800A-DY9C2U9		
SPST Solid-state Light-ON (3-wire)		EP-T1800A-LY9C3U9		
SPST Solid-state Dark-ON (3-wire)		EP-T1800A-DY9C3U9		
12-240V DC/ 24-240V AC (10ms on/off)		Emitter (2-wire)	EP-T1800C-EY9C2L9	
		SPST Solid-state Light-ON (2-wire)	EP-T1800C-LY9C2U9	
		SPST Solid-state Dark-ON (2-wire)	EP-T1800C-DY9C2U9	
		 	24-240V AC (10ms on/off)	Emitter (2-wire)
SPST Solid-state Light-ON (2-wire)				EP-T1800A-LY9P3/2UM
SPST Solid-state Dark-ON (2-wire)	EP-T1800A-DY9P3/2UM			
SPST Solid-state Light-ON (3-wire)	EP-T1800A-LY9P3UM			
SPST Solid-state Dark-ON (3-wire)	EP-T1800A-DY9P3UM			
12-240V DC/ 24-240V AC (10ms on/off)	Emitter (2-wire)		EP-T1800C-EY9P3LM	
	SPST Solid-state Light-ON (2-wire)		EP-T1800C-LY9P3UM	
	SPST Solid-state Dark-ON (2-wire)		EP-T1800C-DY9P3UM	

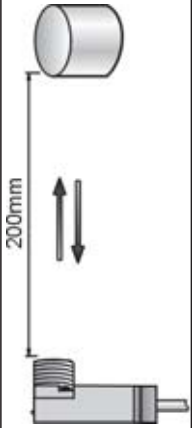
Retroreflective Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light:650nm  5.0m Retroreflective Mode Sensing Distance:5m	2m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6C4U2
			NPN/PNP Dark-ON	EP-L5000D-DY6C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6C4U2-HS
			NPN/PNP Dark-ON	EP-L5000D-DY6C4U2-HS
	9m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6C4U9
			NPN/PNP Dark-ON	EP-L5000D-DY6C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6C4U9-HS
			NPN/PNP Dark-ON	EP-L5000D-DY6C4U9-HS
	Pico Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6P4UP
			NPN/PNP Dark-ON	EP-L5000D-DY6P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6P4UP-HS
			NPN/PNP Dark-ON	EP-L5000D-DY6P4UP-HS
	Euro Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6P4UE
			NPN/PNP Dark-ON	EP-L5000D-DY6P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-L5000D-LY6P4UE-HS
			NPN/PNP Dark-ON	EP-L5000D-DY6P4UE-HS

Retroreflective Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light:650nm  5.0m Retroreflective Mode Sensing Distance: 5m	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-L5000A-LY6C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-L5000A-DY6C2U2
			SPST Solid-state Light-ON (3-wire)	EP-L5000A-LY6C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-L5000A-DY6C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-L5000C-LY6C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-L5000C-DY6C2U2
	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-L5000A-LY6C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-L5000A-DY6C2U9
			SPST Solid-state Light-ON (3-wire)	EP-L5000A-LY6C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-L5000A-DY6C3U9
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-L5000C-LY6C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-L5000C-DY6C2U9
	Micro Style 3Pins 6" Pigtail 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-L5000A-LY6P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-L5000A-DY6P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-L5000A-LY6P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-L5000A-DY6P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-L5000C-LY6P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-L5000C-DY6P3UM

Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: infrared 880nm  200mm Diffuse Mode Sensing Distance: 200mm	2m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9C4U2
			NPN/PNP Dark-ON	EP-D0200D-DY9C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9C4U2-HS
			NPN/PNP Dark-ON	EP-D0200D-DY9C4U2-HS
	9m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9C4U9
			NPN/PNP Dark-ON	EP-D0200D-DY9C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9C4U9-HS
			NPN/PNP Dark-ON	EP-D0200D-DY9C4U9-HS
	Pico Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9P4UP
			NPN/PNP Dark-ON	EP-D0200D-DY9P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9P4UP-HS
			NPN/PNP Dark-ON	EP-D0200D-DY9P4UP-HS
	Euro Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9P2UE
			NPN/PNP Dark-ON	EP-D0200D-DY9P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0200D-LY9P4UE-HS
			NPN/PNP Dark-ON	EP-D0200D-DY9P4UE-HS

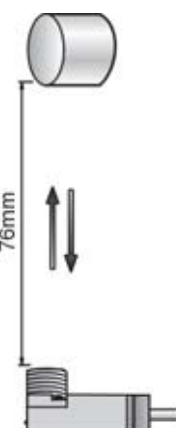
Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: infrared 880nm	 2m Cable	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0200A-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-D0200A-DY9C2U2
			SPST Solid-state Light-ON (3-wire)	EP-D0200A-LY9C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-D0200A-DY9C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0200C-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-D0200C-DY9C2U2
	 9m Cable	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0200A-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-D0200A-DY9C2U9
			SPST Solid-state Light-ON (3-wire)	EP-D0200A-LY9C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-D0200A-DY9C3U9
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0200C-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-D0200C-DY9C2U9
 Micro Style 3Pins 6" Pigtail		24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0200A-LY9P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-D0200A-DY9P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-D0200A-LY9P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-D0200A-DY9P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0200C-LY9P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-D0200C-DY9P3UM
Diffuse Mode Sensing Distance:200mm				

Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: infrared 880nm  76mm	2m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9C4U2
			NPN/PNP Dark-ON	EP-D0076D-DY9C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9C4U2-HS
			NPN/PNP Dark-ON	EP-D0076D-DY9C4U2-HS
	9m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9C4U9
			NPN/PNP Dark-ON	EP-D0076D-DY9C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9C4U9-HS
			NPN/PNP Dark-ON	EP-D0076D-DY9C4U9-HS
	Pico Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9P4UP
			NPN/PNP Dark-ON	EP-D0076D-DY9P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9P4UP-HS
			NPN/PNP Dark-ON	EP-D0076D-DY9P4UP-HS
Diffused Mode Sensing Distance: 76mm  76mm	Euro Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9P4UE
			NPN/PNP Dark-ON	EP-D0076D-DY9P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-D0076D-LY9P4UE-HS
			NPN/PNP Dark-ON	EP-D0076D-DY9P4UE-HS

Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: infrared 880nm 	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0076A-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-D0076A-DY9C2U2
			SPST Solid-state Light-ON (3-wire)	EP-D0076A-LY9C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-D0076A-DY9C3U2
	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0076A-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-D0076A-DY9C2U9
			SPST Solid-state Light-ON (3-wire)	EP-D0076A-LY9C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-D0076A-DY9C3U9
	Micro Style 3Pins 6" Pigtail 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0076A-LY9P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-D0076A-DY9P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-D0076A-LY9P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-D0076A-DY9P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-D0076C-LY9P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-D0076C-DY9P3UM
Diffused Mode Sensing Distance: 76mm				

Convergent Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light 650nm  16mm Convergent Mode Sensing Distance: 16mm	2m Cable 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6C4U2
			NPN/PNP Dark-ON	EP-C0016D-DY6C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6C4U2-HS
			NPN/PNP Dark-ON	EP-C0016D-DY6C4U2-HS
	9m Cable 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6C4U9
			NPN/PNP Dark-ON	EP-C0016D-DY6C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6C4U9-HS
			NPN/PNP Dark-ON	EP-C0016D-DY6C4U9-HS
	Pico Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6P4UP
			NPN/PNP Dark-ON	EP-C0016D-DY6P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6P4UP-HS
			NPN/PNP Dark-ON	EP-C0016D-DY6P4UP-HS
	Euro Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6P4UE
			NPN/PNP Dark-ON	EP-C0016D-DY6P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-C0016D-LY6P4UE-HS
			NPN/PNP Dark-ON	EP-C0016D-DY6P4UE-HS

Convergent Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
Light Source: red light 650nm	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-C0016A-LY6C2U2	
			SPST Solid-state Dark-ON (2-wire)	EP-C0016A-DY6C2U2	
			SPST Solid-state Light-ON (3-wire)	EP-C0016A-LY6C3U2	
			SPST Solid-state Dark-ON (3-wire)	EP-C0016A-DY6C3U2	
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-C0016C-LY6C2U2	
			SPST Solid-state Dark-ON (2-wire)	EP-C0016C-DY6C2U2	
	Convergent Mode Sensing Distance:16mm	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-C0016A-LY6C2U9
				SPST Solid-state Dark-ON (2-wire)	EP-C0016A-DY6C2U9
				SPST Solid-state Light-ON (3-wire)	EP-C0016A-LY6C3U9
				SPST Solid-state Dark-ON (3-wire)	EP-C0016A-DY6C3U9
12-240V DC/ 24-240V AC (10ms on/off)			SPST Solid-state Light-ON (2-wire)	EP-C0016C-LY6C2U9	
			SPST Solid-state Dark-ON (2-wire)	EP-C0016C-DY6C2U9	
Micro Style 3Pins 6" Pigtail 		24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-C0016A-LY6P3/2UM	
			SPST Solid-state Dark-ON (2-wire)	EP-C0016A-DY6P3/2UM	
			SPST Solid-state Light-ON (3-wire)	EP-C0016A-LY6P3UM	
			SPST Solid-state Dark-ON (3-wire)	EP-C0016A-DY6P3UM	
	12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-C0016C-LY6P3UM		
		SPST Solid-state Dark-ON (2-wire)	EP-C0016C-DY6P3UM		

Glass Fiber Optic with Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm  Glass Fiber Optic Opposed Mode	2m Cable 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9C4U2
			NPN/PNP Dark-ON	EP-TGFD-DY9C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9C4U2-HS
			NPN/PNP Dark-ON	EP-TGFD-DY9C4U2-HS
	9m Cable 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9C4U9
			NPN/PNP Dark-ON	EP-TGFD-DY9C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9C4U9-HS
			NPN/PNP Dark-ON	EP-TGFD-DY9C4U9-HS
	Pico Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9P4UP
			NPN/PNP Dark-ON	EP-TGFD-DY9P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9P4UP-HS
			NPN/PNP Dark-ON	EP-TGFD-DY9P4UP-HS
	Euro Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9P4UE
			NPN/PNP Dark-ON	EP-TGFD-DY9P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TGFD-LY9P4UE-HS
			NPN/PNP Dark-ON	EP-TGFD-DY9P4UE-HS

Glass Fiber Optic with Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm 	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TGFA-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-TGFA-DY9C2U2
			SPST Solid-state Light-ON (3-wire)	EP-TGFA-LY9C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-TGFA-DY9C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TGFC-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-TGFC-DY9C2U2
	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TGFA-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-TGFA-DY9C2U9
			SPST Solid-state Light-ON (3-wire)	EP-TGFA-LY9C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-TGFA-DY9C3U9
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TGFC-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-TGFC-DY9C2U9
Glass Fiber Optic Opposed Mode	Micro Style 3Pins 6" Pigtail 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TGFA-LY9P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-TGFA-DY9P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-TGFA-LY9P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-TGFA-DY9P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TGFC-LY9P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-TGFC-DY9P3UM

Glass Fiber Optic with Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm  Glass Fiber Optic Diffuse Mode	2m Cable 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9C4U2
			NPN/PNP Dark-ON	EP-DGFD-DY9C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9C4U2-HS
			NPN/PNP Dark-ON	EP-DGFD-DY9C4U2-HS
	9m Cable 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9C4U9
			NPN/PNP Dark-ON	EP-DGFD-DY9C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9C4U9-HS
			NPN/PNP Dark-ON	EP-DGFD-DY9C4U9-HS
	Pico Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9P4UP
			NPN/PNP Dark-ON	EP-DGFD-DY9P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9P4UP-HS
			NPN/PNP Dark-ON	EP-DGFD-DY9P4UP-HS
	Euro Style 4 Pins 6" Pigtail 	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9P4UE
			NPN/PNP Dark-ON	EP-DGFD-DY9P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DGFD-LY9P4UE-HS
			NPN/PNP Dark-ON	EP-DGFD-DY9P4UE-HS

Glass Fiber Optic with Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm  Glass Fiber Optic Diffuse Mode	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DGFA-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-DGFA-DY9C2U2
			SPST Solid-state Light-ON (3-wire)	EP-DGFA-LY9C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-DGFA-DY9C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DGFC-LY9C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-DGFC-DY9C2U2
	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DGFA-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-DGFA-DY9C2U9
			SPST Solid-state Light-ON (3-wire)	EP-DGFA-LY9C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-DGFA-DY9C3U9
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DGFC-LY9C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-DGFC-DY9C2U9
	Micro Style 3Pins 6" Pigtail 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DGFA-LY9P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-DGFA-DY9P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-DGFA-LY9P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-DGFA-DY9P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DGFC-LY9P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-DGFC-DY9P3UM

Plastic Fiber Optic with Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light 650nm  Plastic Fiber Optic Opposed Mode	2m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6C4U2
			NPN/PNP Dark-ON	EP-TPFD-DY6C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6C4U2-HS
			NPN/PNP Dark-ON	EP-TPFD-DY6C4U2-HS
	9m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6C4U9
			NPN/PNP Dark-ON	EP-TPFD-DY6C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6C4U9-HS
			NPN/PNP Dark-ON	EP-TPFD-DY6C4U9-HS
	Pico Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6P4UP
			NPN/PNP Dark-ON	EP-TPFD-DY6P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6P4UP-HS
			NPN/PNP Dark-ON	EP-TPFD-DY6P4UP-HS
	Euro Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6P4UE
			NPN/PNP Dark-ON	EP-TPFD-DY6P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-TPFD-LY6P4UE-HS
			NPN/PNP Dark-ON	EP-TPFD-D Y6P4UE-HS

Plastic Fiber Optic with Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light 650nm  Plastic Fiber Optic Opposed Mode	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TPFA-LY6C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-TPFA-DY6C2U2
			SPST Solid-state Light-ON (3-wire)	EP-TPFA-LY6C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-TPFA-DY6C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TPFC-LY6C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-TPFC-DY6C2U2
	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TPFA-LY6C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-TPFA-DY6C2U9
			SPST Solid-state Light-ON (3-wire)	EP-TPFA-LY6C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-TPFA-DY6C3U9
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TPFC-LY6C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-TPFC-DY6C2U9
	Micro Style 3Pins 6" Pigtail 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TPFA-LY6P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-TPFA-DY6P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-TPFA-LY6P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-TPFA-DY6P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-TPFC-LY6P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-TPFC-DY6P3UM

Plastic Fiber Optic with Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light 650nm  Plastic Fiber Optic Diffuse Mode	2m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6C4U2
			NPN/PNP Dark-ON	EP-DPFD-DY6C4U2
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6C4U2-HS
			NPN/PNP Dark-ON	EP-DPFD-DY6C4U2-HS
	9m Cable	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6C4U9
			NPN/PNP Dark-ON	EP-DPFD-DY6C4U9
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6C4U9-HS
			NPN/PNP Dark-ON	EP-DPFD-DY6C4U9-HS
	Pico Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6P4UP
			NPN/PNP Dark-ON	EP-DPFD-DY6P4UP
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6P4UP-HS
			NPN/PNP Dark-ON	EP-DPFD-DY6P4UP-HS
	Euro Style 4 Pins 6" Pigtail	10-30V DC (10ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6P4UE
			NPN/PNP Dark-ON	EP-DPFD-DY6P4UE
		10-30V DC (1ms on/off)	NPN/PNP Light-ON	EP-DPFD-LY6P4UE-HS
			NPN/PNP Dark-ON	EP-DPFD-DY6P4UE-HS

Plastic Fiber Optic with Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: red light 650nm  Plastic Fiber Optic Diffuse Mode	2m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DPFA-LY6C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-DPFA-DY6C2U2
			SPST Solid-state Light-ON (3-wire)	EP-DPFA-LY6C3U2
			SPST Solid-state Dark-ON (3-wire)	EP-DPFA-DY6C3U2
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DPFC-LY6C2U2
			SPST Solid-state Dark-ON (2-wire)	EP-DPFC-DY6C2U2
	9m Cable 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DPFA-LY6C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-DPFA-DY6C2U9
			SPST Solid-state Light-ON (3-wire)	EP-DPFA-LY6C3U9
			SPST Solid-state Dark-ON (3-wire)	EP-DPFA-DY6C3U9
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DPFC-LY6C2U9
			SPST Solid-state Dark-ON (2-wire)	EP-DPFC-DY6C2U9
	Micro Style 3Pins 6" Pigtail 	24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DPFA-LY6P3/2UM
			SPST Solid-state Dark-ON (2-wire)	EP-DPFA-DY6P3/2UM
			SPST Solid-state Light-ON (3-wire)	EP-DPFA-LY6P3UM
			SPST Solid-state Dark-ON (3-wire)	EP-DPFA-DY6P3UM
		12-240V DC/ 24-240V AC (10ms on/off)	SPST Solid-state Light-ON (2-wire)	EP-DPFC-LY6P3UM
			SPST Solid-state Dark-ON (2-wire)	EP-DPFC-DY6P3UM

Specifications (DC)

Sensing Mode Item		DC			
		Opposed Mode		Retroreflective Mode	Diffuse Mode
		E	R		
Sensing Range		See each mode			
Hysteresis		—			
Operating Voltage		10~30V DC			
Ripple		<±10%			
Voltage Drop		—	<2.0V at 150mA		
Max Load Current		—	150mA		
No Load Current		<25mA			
Min. Load Current		—	5mA		
Leakage Current		—	<1mA		
Output Configuration		Bipolar: One current sourcing (PNP) and one current sinking (NPN) open-collector transistor			
Environmental Rating		Meets NEMA standards 1, 2, 3s, 4, 12, and 13; IEC Ip66 when assembled to sensor head			
Indicators		Red indicator LED on rear or sensor is "on" when the load is energized			
Transient Protection		Yes			
Reverse Polarity Protection		Yes			
Short Circuit Protection		Yes			
Over Load Current Protection		>180mA			
Output Response Time		10ms or 1ms(High-speed type)			
Construction		Reinforced thermoplastic polyester housing, totally encapsulated, o-ring sealing, acrylic lenses, and stainless screws.			
Enclosure Rating		IP66			
Operating Conditions		Temperature: 0°to +50°C, Maximum relative humidity: 90% at 50°C			
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 500VDC for one min, between all supply terminals connected together and enclosure			
Insulation Resistance		>20MΩ, 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			
Cable		2m or 9m 5.8ϕ 4X0.5 (Emitter :3X0.5) PVC.			
Pigtail Type		See page S-01 for cable and connect at pigtail			

Specifications (AC)

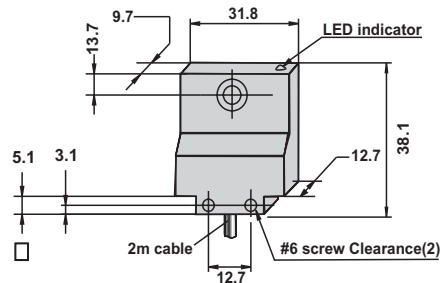
Sensing Mode Item		AC			
		Opposed Mode		Retroreflective Mode	Diffuse Mode
		E	R		
Sensing Range		See each mode			
Hysteresis		—		<20%SD	
Operating Voltage		24~240V AC (50/60HZ)			
Output Configuration		SPST MOSFET solid-state relay with either normally closed or normally open contact (light/dark operate selectable); 2-wire or 3-wire hookup			
Voltage Drop		—	<10V at 200mA		
Max Load Current		—	≤200mA		
No Load Current		25mA	≤1.7mA		
Min. Load Current		—	≥5mA		
Leakage Current		—	≤1.7mA		
Transient Protection		Yes			
Short Circuit Protection		—	Yes		
Over Load Current Protection		—	≥220mA		
Response Time		10 ms			
Construction		Reinforced thermoplastic polyester housing, totally encapsulated, o-ring sealing, acrylic lenses, and stainless screws.			
Indicators		Red indicator LED on rear or sensor is "on" when the load is energized			
Enclosure Rating		IP66			
Operating Temperature		Temperature: 0°to +50°C, Maximum relative humidity: 90% at 50°C			
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		>20MΩ, 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			
Cable		2m or 9m 5.8ϕ 4X0.5 (Emitter :3X0.5) PVC.			
Pigtail Type		See page Q-01 for cable and connect at pigtail			

Specifications (AC/DC)

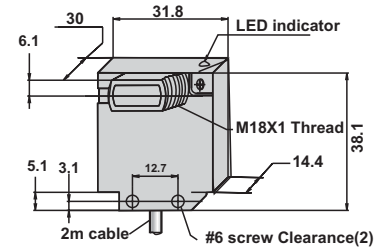
Sensing Mode Item	AC/DC			
	Opposed Mode		Retroreflective Mode	Diffuse Mode
	E	R		
Sensing Range	See each mode			
Hysteresis	—		<20%SD	
Operating Voltage	12~240VDC / 24~240V AC			
Output Configuration	SPST MOSFET solid-state relay with either normally closed or normally open contact (Light/Dark operate selectable); 2-wire hookup			
Voltage Drop	—	<10V at 200mA		
Max Load Current	—	≤200mA		
No Load Current	≤25mA			
Min. Load Current	—	≥5mA		
Leakage Current	—	≤1.7mA		
Transient Protection	Yes			
Short Circuit Protection	—	Yes		
Over Load Current Protection	—	≥220mA		
Response Time	10 ms			
Construction	Reinforced thermoplastic polyester housing, totally encapsulated, o-ring sealing, acrylic lenses, and stainless screws.			
Indicators	Red indicator LED on rear or sensor is "on" when the load is energized			
Enclosure Rating	IP66			
Operating Temperature	Temperature: 0°to +50°C, Maximum relative humidity: 90% at 50°C			
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	>20MΩ, 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			
Cable	2m or 9m 5.8 ϕ 4X0.5 (Emitter :3X0.5) PVC.			
Pigtail Type	See page Q-01 for cable and connect at pigtail			

Dimensions (Unit: mm)

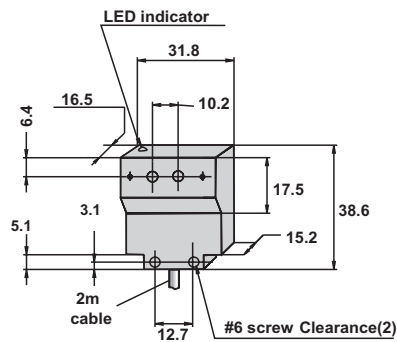
Opposed Sensor



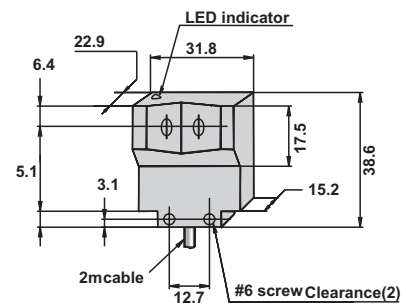
Retroreflective Sensor



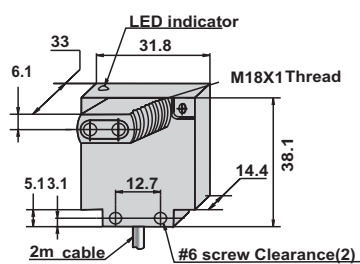
Diffuse Sensor



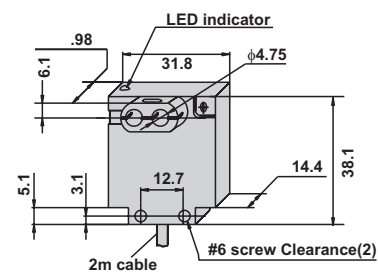
Convergent Sensor



Glass Fiber Sensor

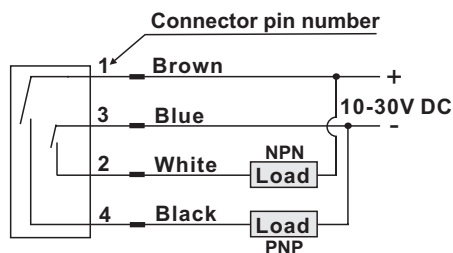


Plastic Fiber Sensor

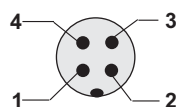


Connection Diagrams

DC NPN/PNP



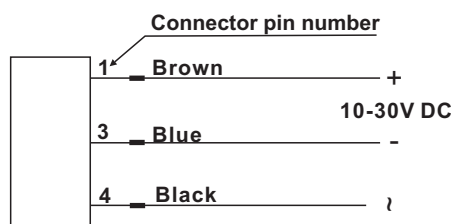
M12 Euro-style



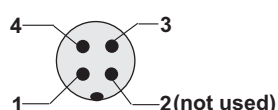
M8 Pico-style



DC Emitter



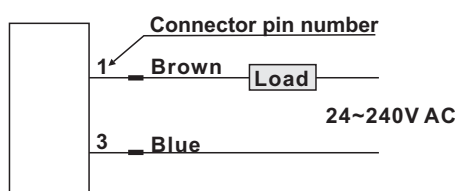
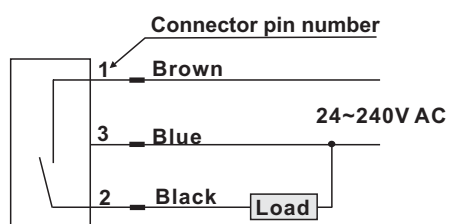
M12 Euro-style



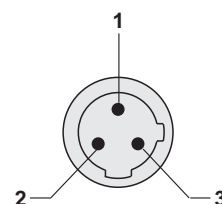
M8 Pico-style



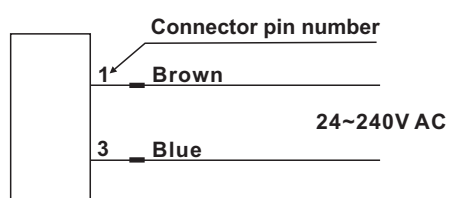
SPST Solid-state (AC)



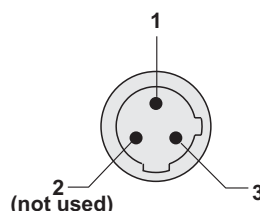
Micro-style



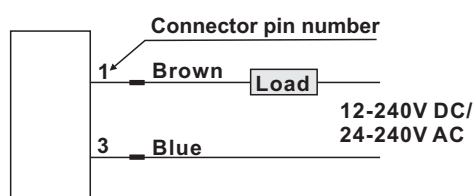
Emitter (AC)



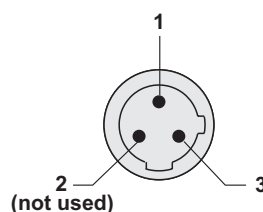
Micro-style



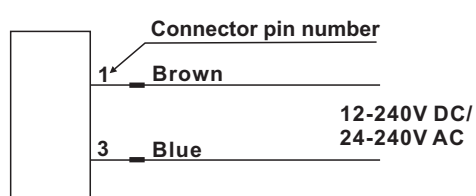
SPST Solid-state (AC/DC)



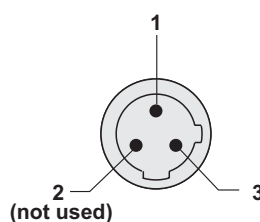
Micro-style



Emitter (AC/DC)

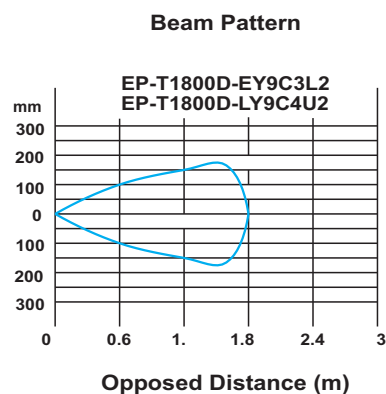
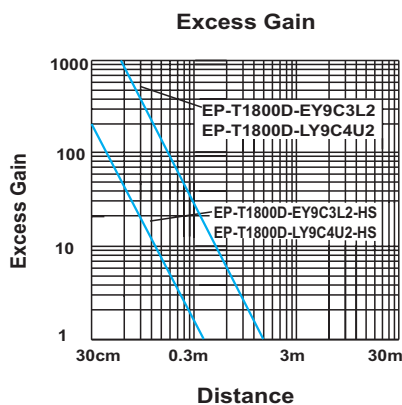


Micro-style

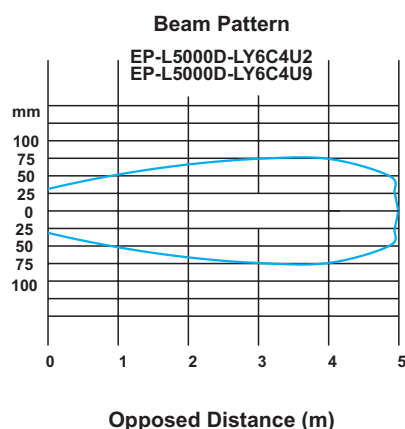
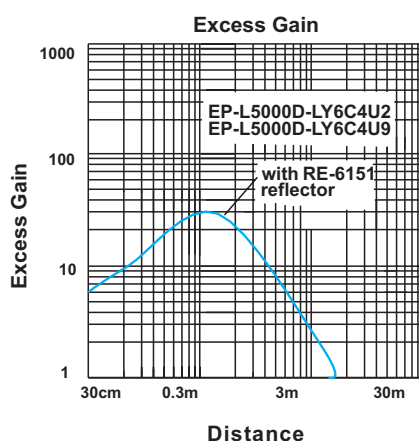


Sensing Characteristics (Typical)

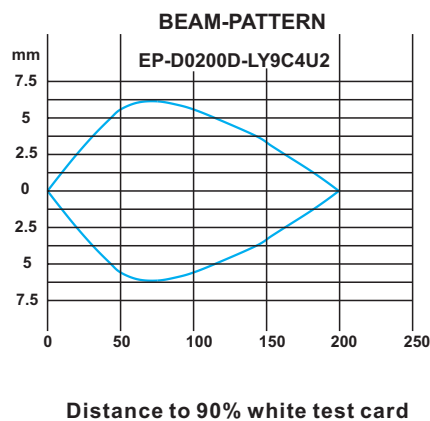
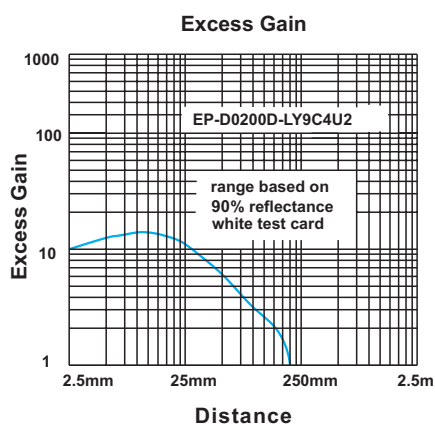
Opposed Mode



Retroreflective Mode

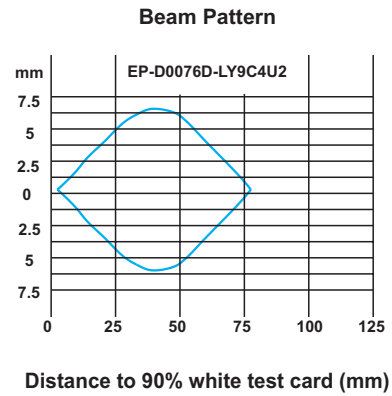
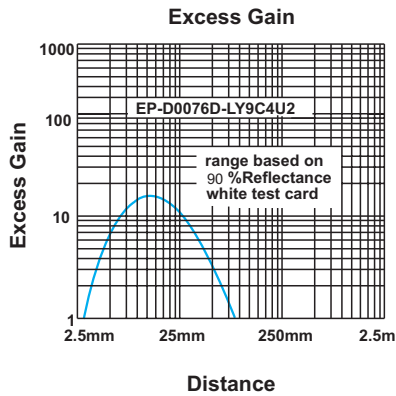


Diffused Mode

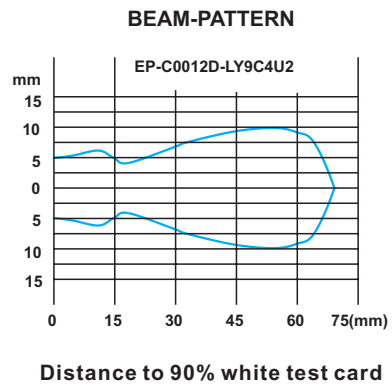
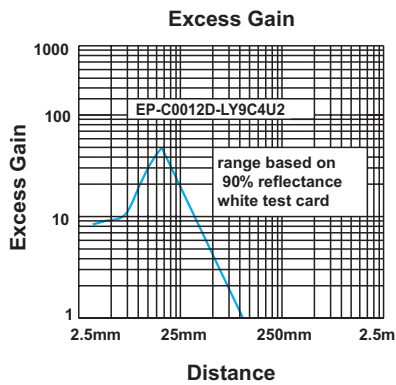


Sensing Characteristics (Typical)

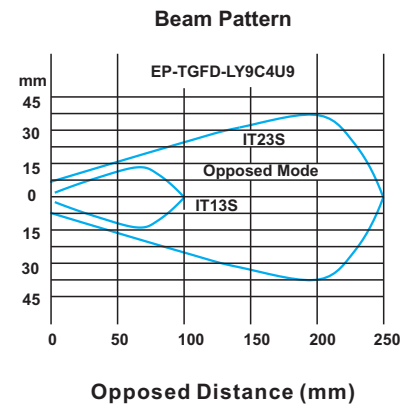
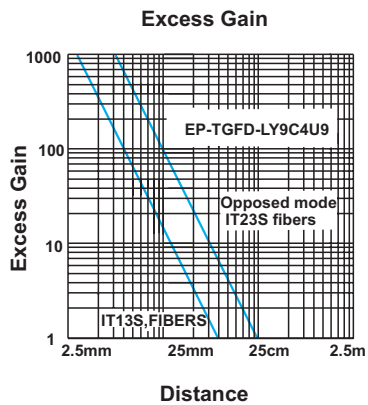
Diffused Mode



Convergent Mode



Fiber Optic Mode



Sensing Characteristics (Typical)

Fiber Optic Mode

