










Opposed Mode (Standard Range)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<p>Light Source : Infrared 880nm</p>  <p>Opposed Mode Sensing Distance:3m</p>	2m Cable	10-30V DC	Emitter	<u>FM18-T3000D-EX9C3L2</u>	
			10-30V DC	NPN	<u>FM18-T3000N-CX9C4U2</u>
				PNP	<u>FM18-T3000P-CX9C4U2</u>
				NPN/PNP	<u>FM18-T3000D-CX9C4U2</u>
		M8(Pico-style) 4pins connector		10-30V DC	Emitter
		NPN	<u>FM18-T3000N-CX9Q4UP</u>		
		PNP	<u>FM18-T3000P-CX9Q4UP</u>		
		NPN/PNP	<u>FM18-T3000D-CX9Q4UP</u>		
		M12(Euro-style) 4pins connector	10-30V DC	Emitter	<u>FM18-T3000D-EX9Q4LE</u>
		NPN		<u>FM18-T3000N-CX9Q4UE</u>	
		PNP		<u>FM18-T3000P-CX9Q4UE</u>	
		NPN/PNP		<u>FM18-T3000D-CX9Q4UE</u>	
M8(Pico-style) 4pins pigtail (6")		10-30V DC	Emitter	<u>FM18-T3000D-EX9P4LP</u>	
	NPN		<u>FM18-T3000N-CX9P4UP</u>		
	PNP		<u>FM18-T3000P-CX9P4UP</u>		
	NPN/PNP		<u>FM18-T3000D-CX9P4UP</u>		
	M12 (Euro-style) 4pins pigtail (6")	10-30V DC	Emitter	<u>FM18-T3000D-EX9P4LE</u>	
	NPN		<u>FM18-T3000N-CX9P4UE</u>		
	PNP		<u>FM18-T3000P-CX9P4UE</u>		
	NPN/PNP		<u>FM18-T3000D-CX9P4UE</u>		

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-01 —

H: FM18 SERIES







Opposed Mode (Standard Range)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source : Infrared 880nm		24~240V AC	Emitter (2-wire)	<u>FM18-T3000A-EX9C2L2</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T3000A-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T3000A-DX9C3U2</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T3000G-EX9C2L2</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T3000G-LX9C2U2</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T3000G-DX9C2U2</u>
Opposed Mode Sensing Distance: 3m		24~240V AC	Emitter (2-wire)	<u>FM18-T3000A-EX9Q3LM</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T3000A-LX9Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T3000A-DX9Q3UM</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T3000G-EX9Q3LM</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T3000G-LX9Q3UM</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T3000G-DX9Q3UM</u>
Micro Style 3 Pins 6" Pigtail		24~240V AC	Emitter (2-wire)	<u>FM18-T3000A-EX9P3LM</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T3000A-LX9P3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T3000A-DX9P3UM</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T3000G-EX9P3LM</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T3000G-LX9P3UM</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T3000G-DX9P3UM</u>

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-02 —

H: FM18 SERIES




Opposed Mode (Long Range)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: infrared 880nm</p>  <p>Opposed Mode Sensing Distance:30m</p>	<p>2m Cable</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T030MD-EX9C3L2</u>
			NPN	<u>FM18-T030MN-GX9C4U2</u>
			PNP	<u>FM18-T030MP-GX9C4U2</u>
			NPN/PNP	<u>FM18-T030MD-GX9C4U2</u>
	<p>M8(Pico-style) 4pins connector</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T030MD-EX9Q4LP</u>
			NPN	<u>FM18-T030MN-GX9Q4UP</u>
			PNP	<u>FM18-T030MP-GX9Q4UP</u>
			NPN/PNP	<u>FM18-T030MD-GX9Q4UP</u>
	<p>M12(Euro-style) 4pins connector</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T030MD-EX9Q4LE</u>
			NPN	<u>FM18-T030MN-GX9Q4UE</u>
			PNP	<u>FM18-T030MP-GX9Q4UE</u>
			NPN/PNP	<u>FM18-T030MD-GX9Q4UE</u>
	<p>M8(Pico-style) 4pins pigtail (6")</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T030MD-EX9P4LP</u>
			NPN	<u>FM18-T030MN-GX9P4UP</u>
			PNP	<u>FM18-T030MP-GX9P4UP</u>
			NPN/PNP	<u>FM18-T030MD-GX9P4UP</u>
<p>M12 (Euro-style) 4pins pigtail (6")</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T030MD-EX9P4LE</u>	
		NPN	<u>FM18-T030MN-GX9P4UE</u>	
		PNP	<u>FM18-T030MP-GX9P4UE</u>	
		NPN/PNP	<u>FM18-T030MD-GX9P4UE</u>	

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-03 —

H: FM18 SERIES








Opposed Mode (Long Range)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source : Infrared 880nm		24~240V AC	Emitter (2-wire)	<u>FM18-T030MA-EX9C2L2</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T030MA-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T030MA-DX9C3U2</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T030MC-EX9C2L2</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T030MC-LX9C2U2</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T030MC-DX9C2U2</u>
Micro Style 3 Pins QD		24~240V AC	Emitter (2-wire)	<u>FM18-T030MA-EX9Q3LM</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T030MA-LX9Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T030MA-DX9Q3UM</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T030MC-EX9Q3LM</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T030MC-LX9Q3UM</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T030MC-DX9Q3UM</u>
Opposed Mode Sensing Distance: 30m		24~240V AC	Emitter (2-wire)	<u>FM18-T030MA-EX9P3LM</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T030MA-LX9P3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T030MA-DX9P3UM</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T030MC-EX9P3LM</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T030MC-LX9P3UM</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T030MC-DX9P3UM</u>

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-04 —

H: FM18 SERIES






Opposed Mode (For plastic detection)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source : red light 650nm For plastic detection</p>   <p>Opposed Mode Sensing Distance:300mm</p>	<p>2m Cable</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T0300D-EX6C3L2-PD</u>
			NPN	<u>FM18-T0300N-CX6C4U2-PD</u>
			PNP	<u>FM18-T0300P-CX6C4U2-PD</u>
			NPN/PNP	<u>FM18-T0300D-CX6C4U2-PD</u>
	<p>M8(Pico-style) 4pins connector</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T0300D-EX6Q4LP-PD</u>
			NPN	<u>FM18-T0300N-CX6Q4UP-PD</u>
			PNP	<u>FM18-T0300P-CX6Q4UP-PD</u>
			NPN/PNP	<u>FM18-T0300D-CX6Q4UP-PD</u>
	<p>M12(Euro-style) 4pins connector</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T0300D-EX6Q4LE-PD</u>
			NPN	<u>FM18-T0300N-CX6Q4UE-PD</u>
			PNP	<u>FM18-T0300P-CX6Q4UE-PD</u>
			NPN/PNP	<u>FM18-T0300D-CX6Q4UE-PD</u>
	<p>M8(Pico-style) 4pins pigtail (6")</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T0300D-EX6P4LP-PD</u>
			NPN	<u>FM18-T0300N-CX6P4UP-PD</u>
			PNP	<u>FM18-T0300P-CX6P4UP-PD</u>
			NPN/PNP	<u>FM18-T0300D-CX6P4UP-PD</u>
<p>M12 (Euro-style) 4pins pigtail (6")</p> 	<p>10-30V DC</p>	Emitter	<u>FM18-T0300D-EX6P4LE-PD</u>	
		NPN	<u>FM18-T0300N-CX6P4UE-PD</u>	
		PNP	<u>FM18-T0300P-CX6P4UE-PD</u>	
		NPN/PNP	<u>FM18-T0300D-CX6P4UE-PD</u>	

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-05 —

H: FM18 SERIES

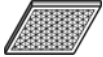





Opposed Mode (For plastic detection)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source : red light 650nm For plastic detection</p>  <p>↑</p>  <p>Opposed Mode Sensing Distance: 300mm</p>	<p>2m Cable</p> 	24~240V AC	Emitter (2-wire)	<u>FM18-T0300A-EX6C2L2-PD</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T0300A-LX6C3U2-PD</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T0300A-DX6C3U2-PD</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T0300C-EX6C2L2-PD</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T0300C-LX6C2U2-PD</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T0300C-DX6C2U2-PD</u>
	<p>Micro Style 3 Pins QD</p> 	24~240V AC	Emitter (2-wire)	<u>FM18-T0300A-EX6Q3LM-PD</u>
			SPST Solid-state Light-ON (3-wire)	<u>FM18-T0300A-LX6Q3UM-PD</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-T0300A-DX6Q3UM-PD</u>
		12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T0300C-EX6Q3LM-PD</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-T0300C-LX6Q3UM-PD</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-T0300C-DX6Q3UM-PD</u>
<p>Micro Style 3 Pins 6" Pigtail</p> 	24~240V AC	Emitter (2-wire)	<u>FM18-T0300A-EX6P3LM-PD</u>	
		SPST Solid-state Light-ON (3-wire)	<u>FM18-T0300A-LX6P3UM-PD</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-T0300A-DX6P3UM-PD</u>	
	12~240V DC/ 24~240V AC	Emitter (2-wire)	<u>FM18-T0300C-EX6P3LM-PD</u>	
		SPST Solid-state Light-ON (2-wire)	<u>FM18-T0300C-LX6P3UM-PD</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-T0300C-DX6P3UM-PD</u>	

Note:
 Coming Soon : Part numbers with underline
 In Preparation : Part numbers with a line through the middle
 — H-06 —







H : FM18 SERIES

Retroreflective Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Light Source: Red light 650nm</p>  <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Retro-reflective Mode Sensing Distance:5m (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-L5000N-CX6C4U2</u>
			PNP	<u>FM18-L5000P-CX6C4U2</u>
			NPN/PNP	<u>FM18-L5000D-CX6C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-L5000A-LX6G3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-L5000A-DX6G3U2</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-L5000C-LX6G2U2</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-L5000C-DX6G2U2</u>
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			<u>FM18-L5000P-CX6Q4UP</u>
	NPN/PNP			<u>FM18-L5000D-CX6Q4UP</u>
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-L5000N-CX6Q4UE</u>
			PNP	<u>FM18-L5000P-CX6Q4UE</u>
			NPN/PNP	<u>FM18-L5000D-CX6Q4UE</u>
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-L5000A-LX6Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-L5000A-DX6Q3UM</u>
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-L5000C-LX6Q3UM</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-L5000C-DX6Q3UM</u>	
<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN	<u>FM18-L5000N-CX6P4UP</u>	
		PNP	<u>FM18-L5000P-CX6P4UP</u>	
		NPN/PNP	<u>FM18-L5000D-CX6P4UP</u>	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-L5000N-CX6P4UE</u>	
		PNP	<u>FM18-L5000P-CX6P4UE</u>	
		NPN/PNP	<u>FM18-L5000D-CX6P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-L5000A-LX6P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-L5000A-DX6P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-L5000C-LX6P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-L5000C-DX6P3UM</u>		








Note: Used with RE-6152 (supplied with sensor) reflector.
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle

Retroreflective Mode with Polarizing Filter

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Light Source: red light 650nm</p>  <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Retro-reflective Mode with Polarizing Filter Sensing Distance:2m (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	FM18-L2000N-CX6C4U2-PF
			PNP	FM18-L2000P-CX6C4U2-PF
			NPN/PNP	FM18-L2000D-CX6C4U2-PF
		24~240V AC	SPST Solid-state Light-ON (3-wire)	FM18-L2000A-LX6C3U2-PF
			SPST Solid-state Dark-ON (3-wire)	FM18-L2000A-DX6C3U2-PF
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	FM18-L2000G-LX6C2U2-PF
			SPST Solid-state Dark-ON (2-wire)	FM18-L2000G-DX6C2U2-PF
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			FM18-L2000P-CX6Q4UP-PF
	NPN/PNP			FM18-L2000D-CX6Q4UP-PF
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	FM18-L2000N-CX6Q4UE-PF
			PNP	FM18-L2000P-CX6Q4UE-PF
			NPN/PNP	FM18-L2000D-CX6Q4UE-PF
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-L2000A-LX6Q3UM-PF
			SPST Solid-state Dark-ON (3-wire)	FM18-L2000A-DX6Q3UM-PF
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-L2000G-LX6Q3UM-PF
	SPST Solid-state Dark-ON (2-wire)		FM18-L2000G-DX6Q3UM-PF	
	<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN	FM18-L2000N-CX6P4UP-PF
			PNP	FM18-L2000P-CX6P4UP-PF
			NPN/PNP	FM18-L2000D-CX6P4UP-PF
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	FM18-L2000N-CX6P4UE-PF	
		PNP	FM18-L2000P-CX6P4UE-PF	
		NPN/PNP	FM18-L2000D-CX6P4UE-PF	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-L2000A-LX6P3UM-PF	
		SPST Solid-state Dark-ON (3-wire)	FM18-L2000A-DX6P3UM-PF	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-L2000G-LX6P3UM-PF	
SPST Solid-state Dark-ON (2-wire)		FM18-L2000G-DX6P3UM-PF		

Note: Used with RE-6152 (supplied with sensor) reflector.
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle







Diffuse Mode (Sensing Distance=380mm)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
Light Source: infrared 880nm  Diffuse Mode Sensing Distance: 380mm 	2m Cable 	10-30V DC	NPN	<u>FM18-D0380N-CX9C4U2</u>	
			PNP	<u>FM18-D0380P-CX9C4U2</u>	
			NPN/PNP	<u>FM18-D0380D-CX9C4U2</u>	
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0380A-LX9C3U2</u>	
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0380A-DX9C3U2</u>	
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0380C-LX9C2U2</u>	
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-D0380C-DX9C2U2</u>	
		M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-D0380N-CX9Q4UP</u>
				PNP	<u>FM18-D0380P-CX9Q4UP</u>
	NPN/PNP			<u>FM18-D0380D-CX9Q4UP</u>	
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	M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-D0380N-CX9Q4UE</u>	
			PNP	<u>FM18-D0380P-CX9Q4UE</u>	
			NPN/PNP	<u>FM18-D0380D-CX9Q4UE</u>	
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0380A-LX9Q3UM</u>	
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0380A-DX9Q3UM</u>	
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0380C-LX9Q3UM</u>	
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-D0380C-DX9Q3UM</u>		
	M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-D0380N-CX9P4UP</u>	
			PNP	<u>FM18-D0380P-CX9P4UP</u>	
			NPN/PNP	<u>FM18-D0380D-CX9P4UP</u>	
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-D0380N-CX9P4UE</u>		
		PNP	<u>FM18-D0380P-CX9P4UE</u>		
		NPN/PNP	<u>FM18-D0380D-CX9P4UE</u>		
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0380A-LX9P3UM</u>		
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0380A-DX9P3UM</u>		
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0380C-LX9P3UM</u>		
SPST Solid-state Dark-ON (2-wire)		<u>FM18-D0380C-DX9P3UM</u>			

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-09 —

H: FM18 SERIES

Diffuse Mode (Sensing Distance=300mm)






Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: infrared 880nm  Diffuse Mode Sensing Distance: 300mm	2m Cable 	10-30V DC	NPN	<u>FM18-D0300N-CX9C4U2</u>
			PNP	<u>FM18-D0300P-CX9C4U2</u>
			NPN/PNP	<u>FM18-D0300D-CX9C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0300A-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0300A-DX9C3U2</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-D0300C-LX9C2U2</u>
	12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0300C-LX9C2U2</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-D0300C-DX9C2U2</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-D0300C-DX9C2U2</u>	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-D0300N-CX9Q4UP</u>
			PNP	<u>FM18-D0300P-CX9Q4UP</u>
			NPN/PNP	<u>FM18-D0300D-CX9Q4UP</u>
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M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-D0300N-CX9Q4UE</u>	
		PNP	<u>FM18-D0300P-CX9Q4UE</u>	
		NPN/PNP	<u>FM18-D0300D-CX9Q4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0300A-LX9Q3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0300A-DX9Q3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0300C-LX9Q3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-D0300C-DX9Q3UM</u>		
M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-D0300N-CX9P4UP</u>	
		PNP	<u>FM18-D0300P-CX9P4UP</u>	
		NPN/PNP	<u>FM18-D0300D-CX9P4UP</u>	
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-D0300N-CX9P4UE</u>	
		PNP	<u>FM18-D0300P-CX9P4UE</u>	
		NPN/PNP	<u>FM18-D0300D-CX9P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0300A-LX9P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0300A-DX9P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0300C-LX9P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-D0300C-DX9P3UM</u>		

Note:

Coming Soon : Part numbers with underline

In Preparation: Part numbers with a line through the middle

Diffuse Mode (Sensing Distance=130mm)








Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number		
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Light Source: infrared 880nm</p>  <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Diffuse Mode Sensing Distance: 130mm</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-D0130N-CX9C4U2</u>		
			PNP	<u>FM18-D0130P-CX9C4U2</u>		
			NPN/PNP	<u>FM18-D0130D-CX9C4U2</u>		
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0130A-LX9C3U2</u>		
				SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0130A-DX9C3U2</u>	
				12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0130C-LX9C2U2</u>
					SPST Solid-state Dark-ON (2-wire)	<u>FM18-D0130C-DX9C2U2</u>
		M8(Pico-style) 4pins connector	10-30V DC	NPN	<u>FM18-D0130N-CX9Q4UP</u>	
				PNP	<u>FM18-D0130P-CX9Q4UP</u>	
				NPN/PNP	<u>FM18-D0130D-CX9Q4UP</u>	
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-D0130N-CX9Q4UE</u>		
			PNP	<u>FM18-D0130P-CX9Q4UE</u>		
			NPN/PNP	<u>FM18-D0130D-CX9Q4UE</u>		
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0130A-LX9Q3UM</u>		
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0130A-DX9Q3UM</u>		
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0130C-LX9Q3UM</u>		
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-D0130C-DX9Q3UM</u>		
		<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN	<u>FM18-D0130N-CX9P4UP</u>	
				PNP	<u>FM18-D0130P-CX9P4UP</u>	
				NPN/PNP	<u>FM18-D0130D-CX9P4UP</u>	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-D0130N-CX9P4UE</u>			
		PNP	<u>FM18-D0130P-CX9P4UE</u>			
		NPN/PNP	<u>FM18-D0130D-CX9P4UE</u>			
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-D0130A-LX9P3UM</u>			
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-D0130A-DX9P3UM</u>			
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-D0130C-LX9P3UM</u>			
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-D0130C-DX9P3UM</u>			

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-11 —

H: FM18 SERIES

FM18 SERIES









Convergent Mode (Sensing Distance=16mm, Infrared Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm 	2m Cable 	10-30V DC	NPN	<u>FM18-C0016N-CX9C4U2</u>
			PNP	<u>FM18-C0016P-CX9C4U2</u>
			NPN/PNP	<u>FM18-C0016D-CX9C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX9C3U2</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX9C2U2</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX9C2U2</u>	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-C0016N-CX9Q4UP</u>
			PNP	<u>FM18-C0016P-CX9Q4UP</u>
			NPN/PNP	<u>FM18-C0016D-CX9Q4UP</u>
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Convergent Mode Sensing Distance: 16mm 	M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-C0016N-CX9Q4UE</u>
			PNP	<u>FM18-C0016P-CX9Q4UE</u>
			NPN/PNP	<u>FM18-C0016D-CX9Q4UE</u>
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX9Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX9Q3UM</u>
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX9Q3UM</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX9Q3UM</u>	
	M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-C0016N-CX9P4UP</u>
			PNP	<u>FM18-C0016P-CX9P4UP</u>
			NPN/PNP	<u>FM18-C0016D-CX9P4UP</u>
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-C0016N-CX9P4UE</u>	
		PNP	<u>FM18-C0016P-CX9P4UE</u>	
		NPN/PNP	<u>FM18-C0016D-CX9P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX9P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX9P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX9P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX9P3UM</u>		

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-12 —

H : FM18 SERIES

Convergent Mode (Sensing Distance=16mm,Red Light)








Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Red light 650nm   	2m Cable 	10-30V DC	NPN	<u>FM18-C0016N-CX6C4U2</u>
			PNP	<u>FM18-C0016P-CX6C4U2</u>
			NPN/PNP	<u>FM18-C0016D-CX6C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX6C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX6C3U2</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX6C2U2</u>
	12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX6C2U2</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-C0016C-DX6C2U2</u>	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-C0016N-CX6Q4UP</u>
			PNP	<u>FM18-C0016P-CX6Q4UP</u>
			NPN/PNP	<u>FM18-C0016D-CX6Q4UP</u>
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M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-C0016N-CX6Q4UE</u>	
		PNP	<u>FM18-C0016P-CX6Q4UE</u>	
		NPN/PNP	<u>FM18-C0016D-CX6Q4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX6Q3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX6Q3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX6Q3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX6Q3UM</u>		
M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-C0016N-CX6P4UP</u>	
		PNP	<u>FM18-C0016P-CX6P4UP</u>	
		NPN/PNP	<u>FM18-C0016D-CX6P4UP</u>	
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-C0016N-CX6P4UE</u>	
		PNP	<u>FM18-C0016P-CX6P4UE</u>	
		NPN/PNP	<u>FM18-C0016D-CX6P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX6P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX6P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX6P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX6P3UM</u>		

Note:

Coming Soon : Part numbers with underline








In Preparation: Part numbers with a line through the middle

Convergent Mode (Sensing Distance=16mm, Green Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="text-align: center;">Light Source: Green light 525nm</p>  <p style="text-align: center;">↕</p>  <p style="text-align: center;">↕</p> <p style="text-align: center;">Convergent Mode Sensing Distance: 16mm Spot size at focus: 1.0mm</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-C0016N-CX5C4U2</u>
			PNP	<u>FM18-C0016P-CX5C4U2</u>
			NPN/PNP	<u>FM18-C0016D-CX5C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX5C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX5C3U2</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX5C2U2</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX5C2U2</u>	
	<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN	<u>FM18-C0016N-CX5Q4UP</u>
			PNP	<u>FM18-C0016P-CX5Q4UP</u>
			NPN/PNP	<u>FM18-C0016D-CX5Q4UP</u>
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-C0016N-CX5Q4UE</u>
			PNP	<u>FM18-C0016P-CX5Q4UE</u>
			NPN/PNP	<u>FM18-C0016D-CX5Q4UE</u>
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX5Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX5Q3UM</u>
12~240V DC/ 24~240V AC (Micro-style)		SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX5Q3UM</u>	
	SPST Solid-state Dark-ON (2-wire)	<u>FM18-C0016C-DX5Q3UM</u>		
<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN	<u>FM18-C0016N-CX5P4UP</u>	
		PNP	<u>FM18-C0016P-CX5P4UP</u>	
		NPN/PNP	<u>FM18-C0016D-CX5P4UP</u>	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-C0016N-CX5P4UE</u>	
		PNP	<u>FM18-C0016P-CX5P4UE</u>	
		NPN/PNP	<u>FM18-C0016D-CX5P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0016A-LX5P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0016A-DX5P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0016C-LX5P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0016C-DX5P3UM</u>		

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-14 —

Convergent Mode (Sensing Distance=43mm, Infrared Light)







Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm  	2m Cable 	10-30V DC	NPN	<u>FM18-C0043N-CX9C4U2</u>
			PNP	<u>FM18-C0043P-CX9C4U2</u>
			NPN/PNP	<u>FM18-C0043D-CX9C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0043A-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0043A-DX9C3U2</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX9C2U2</u>
	12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX9C2U2</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-C0043C-DX9C2U2</u>	
		————	————	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-C0043N-CX9Q4UP</u>
			PNP	<u>FM18-C0043P-CX9Q4UP</u>
			NPN/PNP	<u>FM18-C0043D-CX9Q4UP</u>
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————		————		
M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-C0043N-CX9Q4UE</u>	
		PNP	<u>FM18-C0043P-CX9Q4UE</u>	
		NPN/PNP	<u>FM18-C0043D-CX9Q4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0043A-LX9Q3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0043A-DX9Q3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX9Q3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0043C-DX9Q3UM</u>		
M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-C0043N-CX9P4UP</u>	
		PNP	<u>FM18-C0043P-CX9P4UP</u>	
		NPN/PNP	<u>FM18-C0043D-CX9P4UP</u>	
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-C0043N-CX9P4UE</u>	
		PNP	<u>FM18-C0043P-CX9P4UE</u>	
		NPN/PNP	<u>FM18-C0043D-CX9P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0043A-LX9P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0043A-DX9P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX9P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0043C-DX9P3UM</u>		

Note:

Coming Soon : Part numbers with underline

In Preparation: Part numbers with a line through the middle







Convergent Mode (Sensing Distance=43mm,Red Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Red light 650nm 	2m Cable 	10-30V DC	NPN	<u>FM18-C0043N-CX6C4U2</u>
			PNP	<u>FM18-C0043P-CX6C4U2</u>
			NPN/PNP	<u>FM18-C0043D-CX6C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0043A-LX6C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0043A-DX6C3U2</u>
			SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX6C2U2</u>
	12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX6C2U2</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-C0043C-DX6C2U2</u>	
		_____	_____	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-C0043N-CX6Q4UP</u>
			PNP	<u>FM18-C0043P-CX6Q4UP</u>
			NPN/PNP	<u>FM18-C0043D-CX6Q4UP</u>
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_____		_____		
_____		_____		
M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-C0043N-CX6Q4UE</u>	
		PNP	<u>FM18-C0043P-CX6Q4UE</u>	
		NPN/PNP	<u>FM18-C0043D-CX6Q4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0043A-LX6Q3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0043A-DX6Q3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX6Q3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0043C-DX6Q3UM</u>		
Convergent Mode Sensing Distance: 43mm Spot size at focus: 1.3mm	M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-C0043N-CX6P4UP</u>
			PNP	<u>FM18-C0043P-CX6P4UP</u>
			NPN/PNP	<u>FM18-C0043D-CX6P4UP</u>
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-C0043N-CX6P4UE</u>	
		PNP	<u>FM18-C0043P-CX6P4UE</u>	
		NPN/PNP	<u>FM18-C0043D-CX6P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-C0043A-LX6P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-C0043A-DX6P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-C0043C-LX6P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-C0043C-DX6P3UM</u>		

Note:
 Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 — H-16 —

H : FM18 SERIES







Glass Fiber Optic with Opposed Mode (Infrared Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Infrared 880nm 	2m Cable 	10-30V DC	NPN	<u>FM18-TGFN-CX9C4U2</u>
			PNP	<u>FM18-TGFP-CX9C4U2</u>
			NPN/PNP	<u>FM18-TGFD-CX9C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-TGFA-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-TGFA-DX9C3U2</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-TGFC-LX9C2U2</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-TGFC-DX9C2U2</u>	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-TGFN-CX9Q4UP</u>
			PNP	<u>FM18-TGFP-CX9Q4UP</u>
			NPN/PNP	<u>FM18-TGFD-CX9Q4UP</u>
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		_____	_____	_____
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M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-TGFN-CX9Q4UE</u>	
		PNP	<u>FM18-TGFP-CX9Q4UE</u>	
		NPN/PNP	<u>FM18-TGFD-CX9Q4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-TGFA-LX9Q3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-TGFA-DX9Q3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-TGFC-LX9Q3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-TGFC-DX9Q3UM</u>		
M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-TGFN-CX9P4UP</u>	
		PNP	<u>FM18-TGFP-CX9P4UP</u>	
		NPN/PNP	<u>FM18-TGFD-CX9P4UP</u>	
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-TGFN-CX9P4UE</u>	
		PNP	<u>FM18-TGFP-CX9P4UE</u>	
		NPN/PNP	<u>FM18-TGFD-CX9P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-TGFA-LX9P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-TGFA-DX9P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-TGFC-LX9P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-TGFC-DX9P3UM</u>		

Note: Coming Soon : Part numbers with underline
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 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).
 — H-17 —







H: FM18 SERIES

Glass Fiber Optic with Opposed Mode (Red Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Light Source: Red light 650nm</p>  <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Glass Fiber Optic Opposed Mode Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	FM18-TGFN-CX6C4U2
			PNP	FM18-TGFP-CX6C4U2
			NPN/PNP	FM18-TGFD-CX6C4U2
		24~240V AC	SPST Solid-state Light-ON (3-wire)	FM18-TGFA-LX6C3U2
			SPST Solid-state Dark-ON (3-wire)	FM18-TGFA-DX6C3U2
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	FM18-TGFC-LX6C2U2
	SPST Solid-state Dark-ON (2-wire)		FM18-TGFC-DX6C2U2	
	<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN	FM18-TGFN-CX6Q4UP
			PNP	FM18-TGFP-CX6Q4UP
			NPN/PNP	FM18-TGFD-CX6Q4UP
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	FM18-TGFN-CX6Q4UE
			PNP	FM18-TGFP-CX6Q4UE
			NPN/PNP	FM18-TGFD-CX6Q4UE
24~240V AC (Micro-style)		SPST Solid-state Light-ON (3-wire)	FM18-TGFA-LX6Q3UM	
		SPST Solid-state Dark-ON (3-wire)	FM18-TGFA-DX6Q3UM	
12~240V DC/ 24~240V AC (Micro-style)		SPST Solid-state Light-ON (2-wire)	FM18-TGFC-LX6Q3UM	
	SPST Solid-state Dark-ON (2-wire)	FM18-TGFC-DX6Q3UM		
<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN	FM18-TGFN-CX6P4UP	
		PNP	FM18-TGFP-CX6P4UP	
		NPN/PNP	FM18-TGFD-CX6P4UP	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	FM18-TGFN-CX6P4UE	
		PNP	FM18-TGFP-CX6P4UE	
		NPN/PNP	FM18-TGFD-CX6P4UE	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-TGFA-LX6P3UM	
		SPST Solid-state Dark-ON (3-wire)	FM18-TGFA-DX6P3UM	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-TGFC-LX6P3UM	
SPST Solid-state Dark-ON (2-wire)		FM18-TGFC-DX6P3UM		

Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).







Glass Fiber Optic with Diffuse Mode (Infrared Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: Infrared 880nm</p>  <p>Glass Fiber Optic Diffuse Mode Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	FM18-DGFN-CX9C4U2
			PNP	FM18-DGFP-CX9C4U2
			NPN/PNP	FM18-DGFD-CX9C4U2
		24~240V AC	SPST Solid-state Light-ON (3-wire)	FM18-DGFA-LX9C3U2
			SPST Solid-state Dark-ON (3-wire)	FM18-DGFA-DX9C3U2
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	FM18-DGFC-LX9C2U2
			SPST Solid-state Dark-ON (2-wire)	FM18-DGFC-DX9C2U2
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			FM18-DGFP-CX9Q4UP
	NPN/PNP			FM18-DGFD-CX9Q4UP
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	FM18-DGFN-CX9Q4UE
			PNP	FM18-DGFP-CX9Q4UE
			NPN/PNP	FM18-DGFD-CX9Q4UE
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-DGFA-LX9Q3UM
			SPST Solid-state Dark-ON (3-wire)	FM18-DGFA-DX9Q3UM
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-DGFC-LX9Q3UM
			SPST Solid-state Dark-ON (2-wire)	FM18-DGFC-DX9Q3UM
<p>M8(Pico-style) 4pins pigtail(6")</p> 		10-30V DC	NPN	FM18-DGFN-CX9P4UP
	PNP		FM18-DGFP-CX9P4UP	
	NPN/PNP		FM18-DGFD-CX9P4UP	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	FM18-DGFN-CX9P4UE	
		PNP	FM18-DGFP-CX9P4UE	
		NPN/PNP	FM18-DGFD-CX9P4UE	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-DGFA-LX9P3UM	
		SPST Solid-state Dark-ON (3-wire)	FM18-DGFA-DX9P3UM	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-DGFC-LX9P3UM	
		SPST Solid-state Dark-ON (2-wire)	FM18-DGFC-DX9P3UM	

Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
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H: FM18 SERIES

Glass Fiber Optic with Diffuse Mode (Red Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: Red light 650nm</p>  <p>Glass Fiber Optic Diffuse Mode Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	FM18-DGFN-CX6C4U2
			PNP	FM18-DGFP-CX6C4U2
			NPN/PNP	FM18-DGFD-CX6C4U2
		24~240V AC	SPST Solid-state Light-ON (3-wire)	FM18-DGFA-LX6C3U2
			SPST Solid-state Dark-ON (3-wire)	FM18-DGFA-DX6C3U2
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	FM18-DGFC-LX6C2U2
			SPST Solid-state Dark-ON (2-wire)	FM18-DGFC-DX6C2U2
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			FM18-DGFP-CX6Q4UP
	NPN/PNP			FM18-DGFD-CX6Q4UP
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	FM18-DGFN-CX6Q4UE
			PNP	FM18-DGFP-CX6Q4UE
			NPN/PNP	FM18-DGFD-CX6Q4UE
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-DGFA-LX6Q3UM
			SPST Solid-state Dark-ON (3-wire)	FM18-DGFA-DX6Q3UM
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-DGFC-LX6Q3UM
SPST Solid-state Dark-ON (2-wire)			FM18-DGFC-DX6Q3UM	
<p>M8(Pico-style) 4pins pigtail(6")</p> 		10-30V DC	NPN	FM18-DGFN-CX6P4UP
	PNP		FM18-DGFP-CX6P4UP	
	NPN/PNP		FM18-DGFD-CX6P4UP	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	FM18-DGFN-CX6P4UE	
		PNP	FM18-DGFP-CX6P4UE	
		NPN/PNP	FM18-DGFD-CX6P4UE	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-DGFA-LX6P3UM	
		SPST Solid-state Dark-ON (3-wire)	FM18-DGFA-DX6P3UM	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-DGFC-LX6P3UM	
		SPST Solid-state Dark-ON (2-wire)	FM18-DGFC-DX6P3UM	

Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).

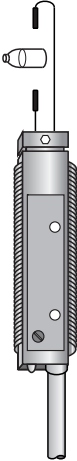





Glass Fiber Optic with Retroreflective Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Light Source: Infrared 880nm</p>  <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Glass Fiber Optic Retro-reflective Mode Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-LGFN-CX9C4U2</u>
			PNP	<u>FM18-LGFP-CX9C4U2</u>
			NPN/PNP	<u>FM18-LGFD-CX9C4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-LGFA-LX9C3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-LGFA-DX9C3U2</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-LGFC-LX9C2U2</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-LGFC-DX9C2U2</u>
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			<u>FM18-LGFP-CX9Q4UP</u>
	NPN/PNP			<u>FM18-LGFD-CX9Q4UP</u>
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-LGFN-CX9Q4UE</u>
			PNP	<u>FM18-LGFP-CX9Q4UE</u>
			NPN/PNP	<u>FM18-LGFD-CX9Q4UE</u>
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-LGFA-LX9Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-LGFA-DX9Q3UM</u>
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-LGFC-LX9Q3UM</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-LGFC-DX9Q3UM</u>	
<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN	<u>FM18-LGFN-CX9P4UP</u>	
		PNP	<u>FM18-LGFP-CX9P4UP</u>	
		NPN/PNP	<u>FM18-LGFD-CX9P4UP</u>	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-LGFN-CX9P4UE</u>	
		PNP	<u>FM18-LGFP-CX9P4UE</u>	
		NPN/PNP	<u>FM18-LGFD-CX9P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-LGFA-LX9P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-LGFA-DX9P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-LGFC-LX9P3UM</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-LGFC-DX9P3UM</u>		

Note: Coming Soon : Part numbers with underline
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 — H-21 —

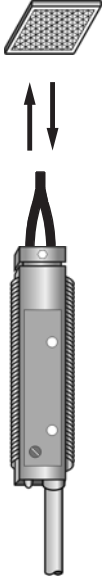





H: FM18 SERIES

Glass Fiber Optic with Opposed Mode (Translucent material detector)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
Light Source: Red light 650nm  Glass Fiber Optic (Special mode) Opposed Mode (Translucent material sensors) Sensing Distance (Note)	2m Cable 	10-30V DC	NPN	<u>FM18-TGFN-CX6C4U2-L</u>
			PNP	<u>FM18-TGFP-CX6C4U2-L</u>
			NPN/PNP	<u>FM18-TGFD-CX6C4U2-L</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-TGFA-LX6G3U2-L</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-TGFA-DX6G3U2-L</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-TGFC-LX6G2U2-L</u>
	SPST Solid-state Dark-ON (2-wire)		<u>FM18-TGFC-DX6G2U2-L</u>	
	M8(Pico-style) 4pins connector 	10-30V DC	NPN	<u>FM18-TGFN-CX6Q4UP-L</u>
			PNP	<u>FM18-TGFP-CX6Q4UP-L</u>
			NPN/PNP	<u>FM18-TGFD-CX6Q4UP-L</u>
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M12 Quick Disconnect 	10-30V DC (Euro-style)	NPN	<u>FM18-TGFN-CX6Q4UE-L</u>	
		PNP	<u>FM18-TGFP-CX6Q4UE-L</u>	
		NPN/PNP	<u>FM18-TGFD-CX6Q4UE-L</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-TGFA-LX6Q3UM-L</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-TGFA-DX6Q3UM-L</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-TGFC-LX6Q3UM-L</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-TGFC-DX6Q3UM-L</u>		
M8(Pico-style) 4pins pigtail(6") 	10-30V DC	NPN	<u>FM18-TGFN-CX6P4UP-L</u>	
		PNP	<u>FM18-TGFP-CX6P4UP-L</u>	
		NPN/PNP	<u>FM18-TGFD-CX6P4UP-L</u>	
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M12 Pigtail (6") 	10-30V DC (Euro-style)	NPN	<u>FM18-TGFN-CX6P4UE-L</u>	
		PNP	<u>FM18-TGFP-CX6P4UE-L</u>	
		NPN/PNP	<u>FM18-TGFD-CX6P4UE-L</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-TGFA-LX6P3UM-L</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-TGFA-DX6P3UM-L</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-TGFC-LX6P3UM-L</u>	
SPST Solid-state Dark-ON (2-wire)		<u>FM18-TGFC-DX6P3UM-L</u>		









Note: Coming Soon : Part numbers with underline
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 Depends on fiber optic used (Please see our **Glass Fiber & Plastic Fiber** catalogue for detail information).

Glass Fiber Optic with Retroreflective Mode (Narrow-Light)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number	
<p>Light Source: Red light 650nm</p>  <p>Glass Fiber Optic (Special Mode) Retro-reflective Mode (Narrow Light) Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-LGFN-CX6C4U2-N</u>	
			PNP	<u>FM18-LGFP-CX6C4U2-N</u>	
			NPN/PNP	<u>FM18-LGFD-CX6C4U2-N</u>	
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-LGFA-LX6C3U2-N</u>	
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-LGFA-DX6C3U2-N</u>	
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-LGFC-LX6C2U2-N</u>	
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-LGFC-DX6C2U2-N</u>	
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN	<u>FM18-LGFN-CX6Q4UP-N</u>
				PNP	<u>FM18-LGFP-CX6Q4UP-N</u>
	NPN/PNP			<u>FM18-LGFD-CX6Q4UP-N</u>	
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	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-LGFN-CX6Q4UE-N</u>	
			PNP	<u>FM18-LGFP-CX6Q4UE-N</u>	
			NPN/PNP	<u>FM18-LGFD-CX6Q4UE-N</u>	
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-LGFA-LX6Q3UM-N</u>	
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-LGFA-DX6Q3UM-N</u>	
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-LGFC-LX6Q3UM-N</u>	
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-LGFC-DX6Q3UM-N</u>	
		<p>M8(Pico-style) 4pins pigtail (6")</p> 	10-30V DC	NPN	<u>FM18-LGFN-CX6P4UP-N</u>
				PNP	<u>FM18-LGFP-CX6P4UP-N</u>
	NPN/PNP			<u>FM18-LGFD-CX6P4UP-N</u>	
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<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-LGFN-CX6P4UE-N</u>		
		PNP	<u>FM18-LGFP-CX6P4UE-N</u>		
		NPN/PNP	<u>FM18-LGFD-CX6P4UE-N</u>		
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-LGFA-LX6P3UM-N</u>		
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-LGFA-DX6P3UM-N</u>		
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-LGFC-LX6P3UM-N</u>		
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-LGFC-DX6P3UM-N</u>		

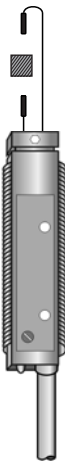





Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).

Glass Fiber Optic with Diffuse Mode (Mark Sensor)

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: Red light 650nm</p>    <p>Glass Fiber Optic (Special Mode) Diffuse Mode (Mark Sensor) Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-DGFN-CX6C4U2-K</u>
			PNP	<u>FM18-DGFP-CX6C4U2-K</u>
			NPN/PNP	<u>FM18-DGFD-CX6C4U2-K</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-DGFA-LX6C3U2-K</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-DGFA-DX6C3U2-K</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-DGFC-LX6C2U2-K</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-DGFC-DX6C2U2-K</u>
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			<u>FM18-DGFP-CX6Q4UP-K</u>
	NPN/PNP			<u>FM18-DGFD-CX6Q4UP-K</u>
	—		—	—
	—		—	—
	—		—	—
	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-DGFN-CX6Q4UE-K</u>
			PNP	<u>FM18-DGFP-CX6Q4UE-K</u>
			NPN/PNP	<u>FM18-DGFD-CX6Q4UE-K</u>
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-DGFA-LX6Q3UM-K</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-DGFA-DX6Q3UM-K</u>
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-DGFC-LX6Q3UM-K</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-DGFC-DX6Q3UM-K</u>
<p>M8(Pico-style) 4pins pigtail (6")</p> 		10-30V DC	NPN	<u>FM18-DGFN-CX6P4UP-K</u>
	PNP		<u>FM18-DGFP-CX6P4UP-K</u>	
	NPN/PNP		<u>FM18-DGFD-CX6P4UP-K</u>	
	—	—	—	
	—	—	—	
	—	—	—	
<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-DGFN-CX6P4UE-K</u>	
		PNP	<u>FM18-DGFP-CX6P4UE-K</u>	
		NPN/PNP	<u>FM18-DGFD-CX6P4UE-K</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-DGFA-LX6P3UM-K</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-DGFA-DX6P3UM-K</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-DGFC-LX6P3UM-K</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-DGFC-DX6P3UM-K</u>	

Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).

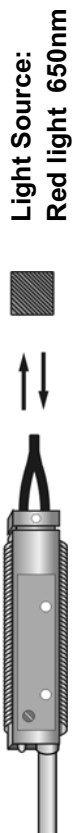





Plastic Fiber Optic with Opposed Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: Red light 650nm</p>  <p>Plastic Fiber Optic Opposed Mode Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	<u>FM18-TPFN-CX6G4U2</u>
			PNP	<u>FM18-TPFP-CX6G4U2</u>
			NPN/PNP	<u>FM18-TPFD-CX6G4U2</u>
		24~240V AC	SPST Solid-state Light-ON (3-wire)	<u>FM18-TPFA-LX6G3U2</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-TPFA-DX6G3U2</u>
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	<u>FM18-TPFC-LX6G2U2</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-TPFC-DX6G2U2</u>
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			<u>FM18-TPFP-CX6Q4UP</u>
	NPN/PNP			<u>FM18-TPFD-CX6Q4UP</u>
	—		—	—
	—		—	—
	—		—	—
	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-TPFN-CX6Q4UE</u>
			PNP	<u>FM18-TPFP-CX6Q4UE</u>
			NPN/PNP	<u>FM18-TPFD-CX6Q4UE</u>
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-TPFA-LX6Q3UM</u>
			SPST Solid-state Dark-ON (3-wire)	<u>FM18-TPFA-DX6Q3UM</u>
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-TPFC-LX6Q3UM</u>
			SPST Solid-state Dark-ON (2-wire)	<u>FM18-TPFC-DX6Q3UM</u>
<p>M8(Pico-style) 4pins pigtail(6")</p> 		10-30V DC	NPN	<u>FM18-TPFN-CX6P4UP</u>
	PNP		<u>FM18-TPFP-CX6P4UP</u>	
	NPN/PNP		<u>FM18-TPFD-CX6P4UP</u>	
	—	—	—	
	—	—	—	
	—	—	—	
<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	<u>FM18-TPFN-CX6P4UE</u>	
		PNP	<u>FM18-TPFP-CX6P4UE</u>	
		NPN/PNP	<u>FM18-TPFD-CX6P4UE</u>	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	<u>FM18-TPFA-LX6P3UM</u>	
		SPST Solid-state Dark-ON (3-wire)	<u>FM18-TPFA-DX6P3UM</u>	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	<u>FM18-TPFC-LX6P3UM</u>	
		SPST Solid-state Dark-ON (2-wire)	<u>FM18-TPFC-DX6P3UM</u>	

Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).
 — H-25 —

H: FM18 SERIES

Plastic Fiber Optic with Diffuse Mode

Sensing Mode	Connection	Supply Voltage	Output Mode	Part Number
<p>Light Source: Red light 650nm</p>  <p>Plastic Fiber Optic Diffuse Mode Sensing Distance (Note)</p>	<p>2m Cable</p> 	10-30V DC	NPN	FM18-DPFN-CX6C4U2
			PNP	FM18-DPFP-CX6C4U2
			NPN/PNP	FM18-DPFD-CX6C4U2
		24~240V AC	SPST Solid-state Light-ON (3-wire)	FM18-DPFA-LX6C3U2
			SPST Solid-state Dark-ON (3-wire)	FM18-DPFA-DX6C3U2
		12~240V DC/ 24~240V AC	SPST Solid-state Light-ON (2-wire)	FM18-DPFC-LX6C2U2
			SPST Solid-state Dark-ON (2-wire)	FM18-DPFC-DX6C2U2
		<p>M8(Pico-style) 4pins connector</p> 	10-30V DC	NPN
	PNP			FM18-DPFP-CX6Q4UP
	NPN/PNP			FM18-DPFD-CX6Q4UP
	—		—	—
	—		—	—
	—		—	—
	<p>M12 Quick Disconnect</p> 	10-30V DC (Euro-style)	NPN	FM18-DPFN-CX6Q4UE
			PNP	FM18-DPFP-CX6Q4UE
			NPN/PNP	FM18-DPFD-CX6Q4UE
		24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-DPFA-LX6Q3UM
			SPST Solid-state Dark-ON (3-wire)	FM18-DPFA-DX6Q3UM
		12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-DPFC-LX6Q3UM
			SPST Solid-state Dark-ON (2-wire)	FM18-DPFC-DX6Q3UM
		<p>M8(Pico-style) 4pins pigtail(6")</p> 	10-30V DC	NPN
	PNP			FM18-DPFP-CX6P4UP
	NPN/PNP			FM18-DPFD-CX6P4UP
	—		—	—
—	—		—	
—	—		—	
<p>M12 Pigtail (6")</p> 	10-30V DC (Euro-style)	NPN	FM18-DPFN-CX6P4UE	
		PNP	FM18-DPFP-CX6P4UE	
		NPN/PNP	FM18-DPFD-CX6P4UE	
	24~240V AC (Micro-style)	SPST Solid-state Light-ON (3-wire)	FM18-DPFA-LX6P3UM	
		SPST Solid-state Dark-ON (3-wire)	FM18-DPFA-DX6P3UM	
	12~240V DC/ 24~240V AC (Micro-style)	SPST Solid-state Light-ON (2-wire)	FM18-DPFC-LX6P3UM	
		SPST Solid-state Dark-ON (2-wire)	FM18-DPFC-DX6P3UM	

Note: Coming Soon : Part numbers with underline
 In Preparation: Part numbers with a line through the middle
 Depends on fiber optic used (Please see our Glass Fiber & Plastic Fiber catalogue for detail information).

H : FM18 SERIES

Specifications (DC)

Item	Sensing Mode		DC	
	Opposed Mode		Retroreflective Mode	Diffuse Mode
	E	R		
Sensing Range	See each mode			
Hysteresis	—			
Operating Voltage	10~30V			
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	NPN, PNP, NPN/PNP			
Indicators	Red indicator LED on rear or sensor is "on" when the load is energized			
Adjustments	15-turn slotted brass screw GAIN (sensitivity) adjustment potentiometer (clutched at both ends of travel). Control is located on rear panel of sensor and protected by a gasketed, clear acrylic cover.			
Transient Protection	Yes			
Reverse Polarity Protection	YES (Only for NPN or PNP, not for NPN/PNP)			
Short Circuit Protection	Yes			
Over Load Current Protection	>180mA			
Output Response Time	1ms or 0.3ms (High-speed Type)			
Construction	Reinforced thermoplastic polyester housing, totally encapsulated, o-ring sealing, acrylic lenses, and stainless screws.			
Environmental Rating	IP67			
Operating Conditions	Temperature: -20°to +70°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 5.8 φ 4X0.5 (Emitter :3X0.5) PVC.			
Pigtail Type	See Pigtail Series or our Cables & Connectors catalogue .			

Specifications (AC)

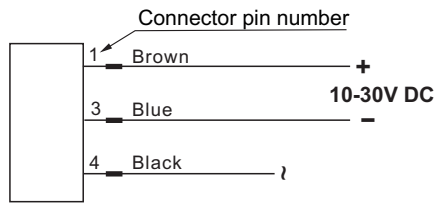
Item	Sensing Mode		AC			
	Opposed Mode		Retroreflective Mode		Diffuse Mode	
	E	R				
Sensing Range	See each mode					
Hysteresis	—				<20% SD	
Operating Voltage	24~240V AC (50/60HZ)					
Output Configuration	SPST MOSFET solid-state relay with either normally closed or normally open contact (Only Light-ON or Dark-ON ; 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	2ms	8ms	4ms		8ms	
Construction	Reinforced thermoplastic polyester housing, totally encapsulated, o-ring sealing, acrylic lenses, and stainless screws.					
Adjustments	15-turn slotted brass screw GAIN (sensitivity) adjustment potentiometers (clutched at both ends of travel). Control is located on rear panel of sensor and protected, clear acrylic cover.					
Indicators	Red indicator LED on rear or sensor is "on" when the load is energized					
Environmental Rating	IP67					
Operating Temperature	Temperature: -20°C to +70°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 :2X0.5) PVC.					
Pigtail Type	See Pigtail Series or our Cables & Connectors catalogue.					

Specifications (AC/DC)

Item	Sensing Mode		AC/DC			
	Opposed Mode		Retroreflective Mode		Diffuse Mode	
	E	R				
Sensing Range	See each mode					
Hysteresis	—				<20%SD	
Operating Voltage	12~240V DC/ 24~240V AC					
Output Configuration	SPST solid-state relay with either normally closed or normally open contact (Only Light-ON or Dark-ON; 2-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	2ms	8ms	4ms		8ms	
Construction	Reinforced thermoplastic polyester housing, totally encapsulated, o-ring sealing, acrylic lenses, and stainless screws.					
Adjustments	15-turn slotted brass screw GAIN (sensitivity) adjustment potentiometers (clutched at both ends of travel). Control is located on rear panel of sensor and protected, clear acrylic cover.					
Indicators	Red indicator LED on rear of sensor is "on" when the load is energized					
Environmental Rating	IP67					
Operating Temperature	Temperature: -20°to +70°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	>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					
Cable	2m or 9m 5.8 ϕ 4X0.5 (Emitter :2x0.5) PVC.					
Pigtail Type	See Pigtail Series or our Cables & Connectors catalogue.					

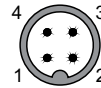
Connection Diagrams

Emitter of Thru-beam Mode (DC)

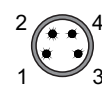


Connector face view

Euro-style

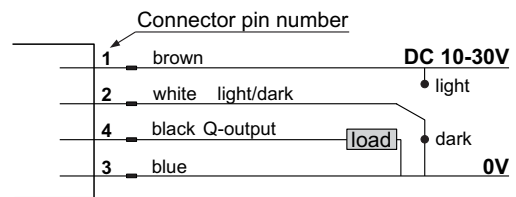
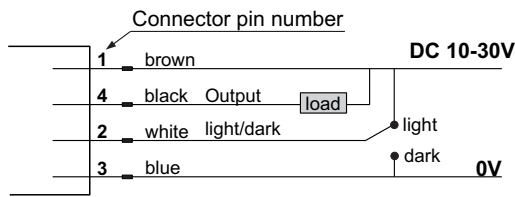


Pico-Style



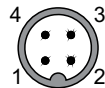
- 1. Brown (+)
- 2. Not used
- 3. Blue (-)
- 4. Black (l)

NPN output PNP output

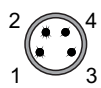


Connector face view

Euro-style

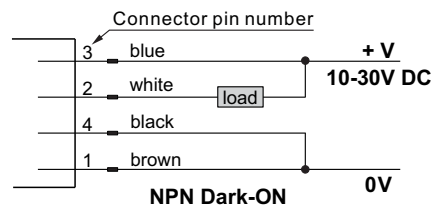
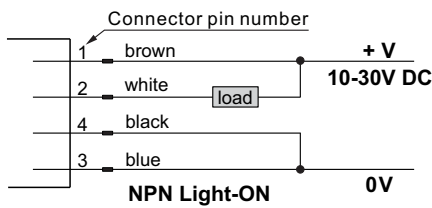


Pico-Style



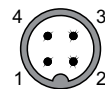
- 1. Brown (+)
- 2. White (Light/Dark control)
- 3. Blue (-)
- 4. Black (Output)

NPN/PNP output

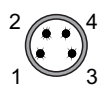


Connector face view

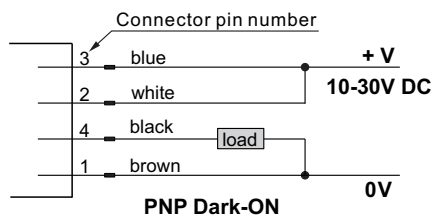
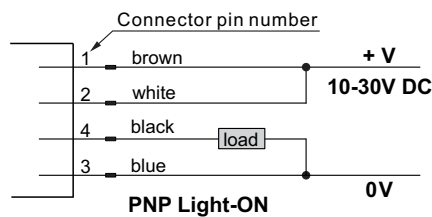
Euro-style



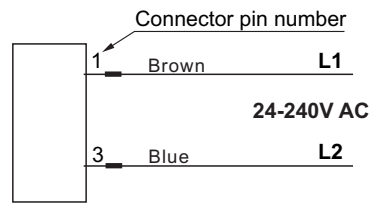
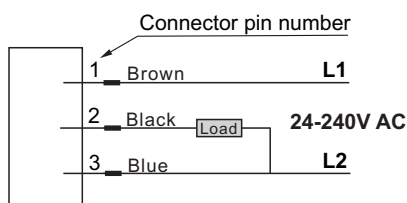
Pico-Style



- 1. Brown
- 2. White
- 3. Blue
- 4. Black

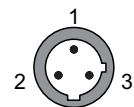


AC Type Sensor AC Emitter of Thru-beam Mode



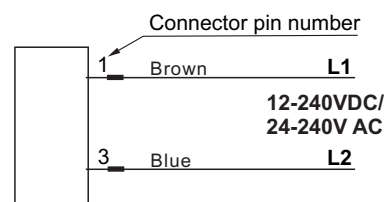
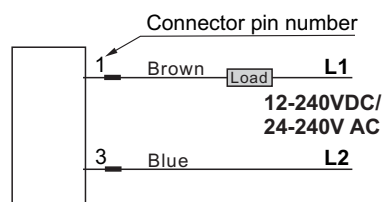
Connector face view

Micro-style



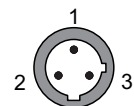
- 1. Brown
- 2. Black
- 3. Blue

AC/DC Type Sensor AC/DC Emitter of Thru-beam Mode



Connector face view

Micro-style

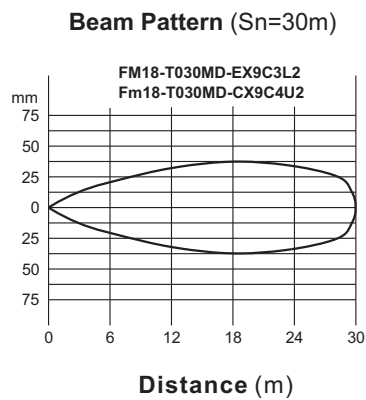
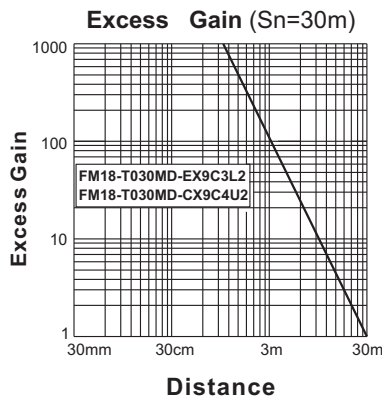
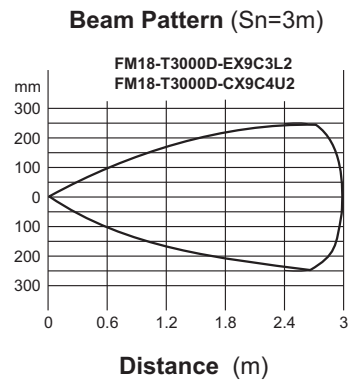
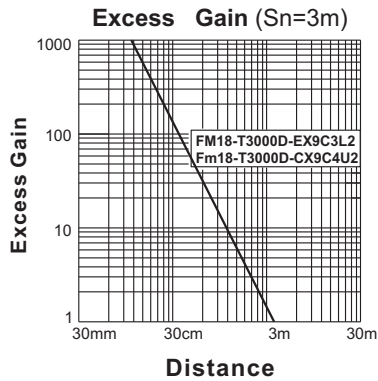


- 1. Brown
- 2. Black
- 3. Blue

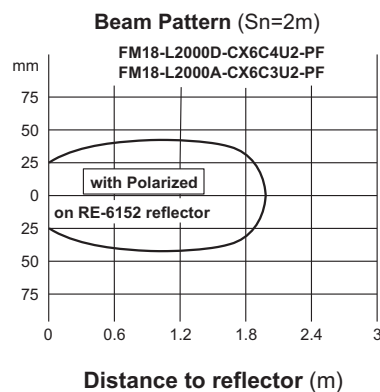
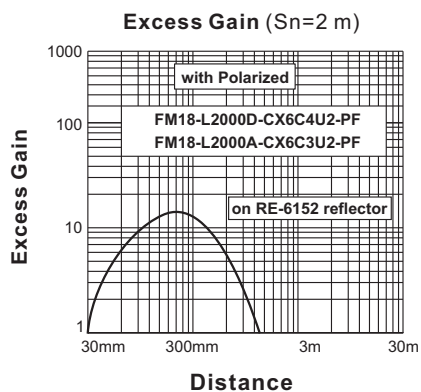
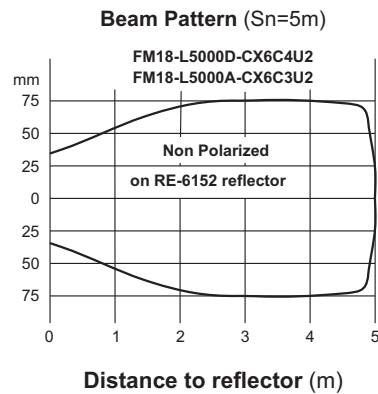
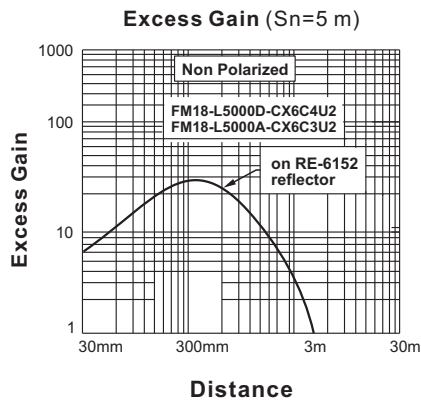
H: FM18 SERIES

Sensing Characteristics (Typical)

Opposed Mode



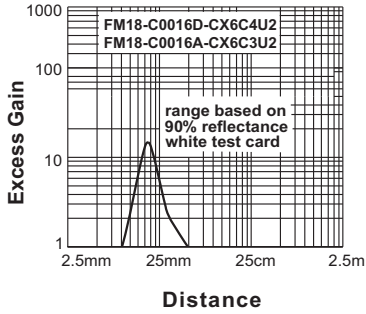
Retro-reflective Mode



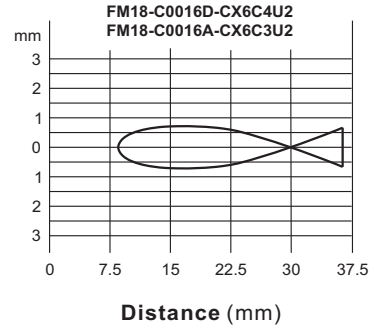
Sensing Characteristics (Typical)

Convergent Mode

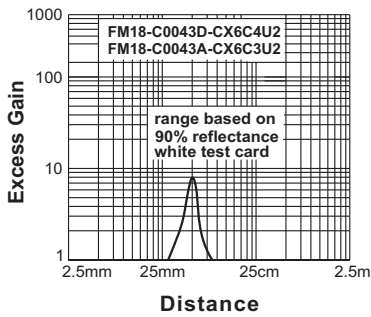
Excess Gain (Sn=16mm)



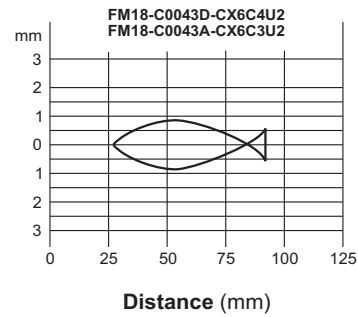
Beam Pattern (Sn=16mm)



Excess Gain (Sn=43mm)

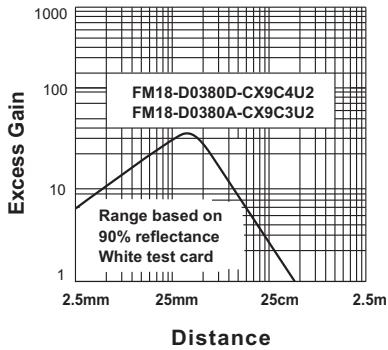


Beam Pattern (Sn=43mm)

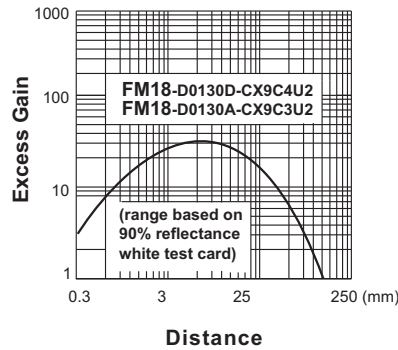


Diffuse Mode

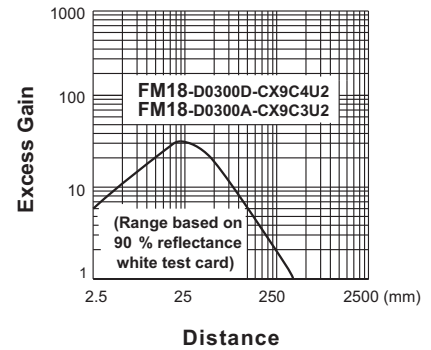
Excess Gain (Sn=380mm)



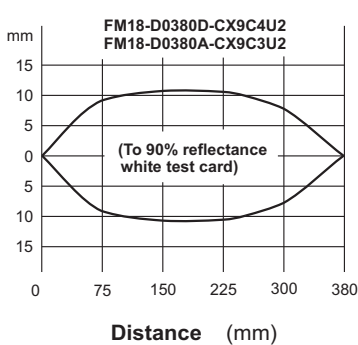
Excess Gain (Sn=130mm)



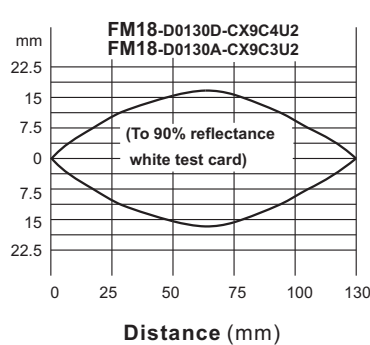
Excess Gain (Sn=300mm)



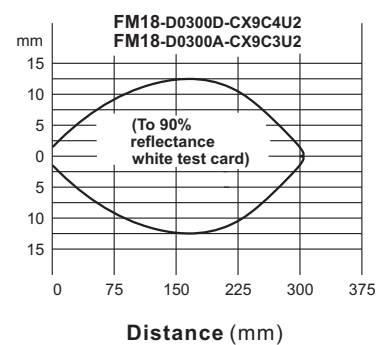
Beam Pattern (Sn=380mm)



Beam Pattern (Sn=130mm)



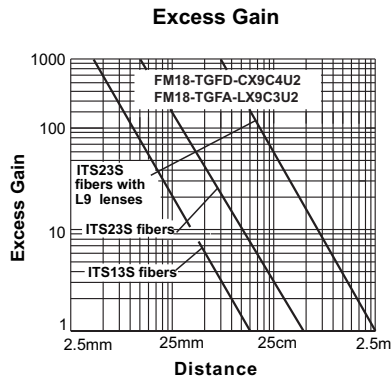
Beam Pattern (Sn=300mm)



H: FM18 SERIES

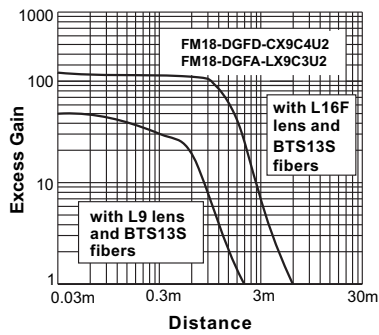
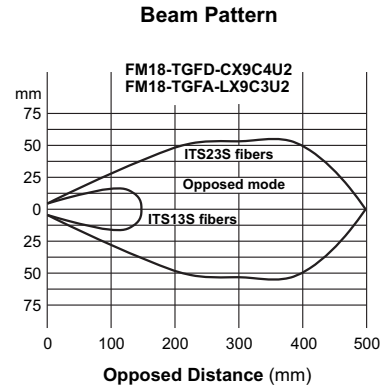
Sensing Characteristics (Typical)

Fiber Optic Mode



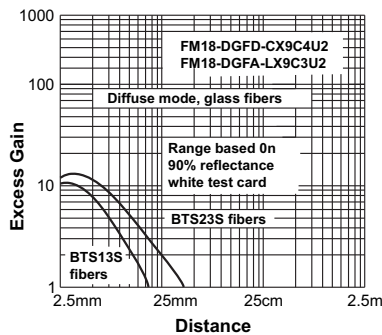
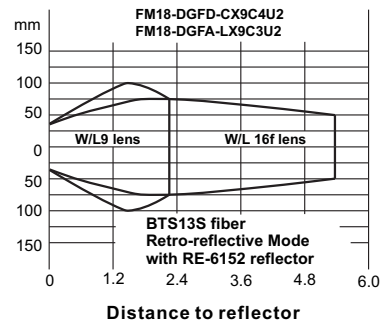
FM18-TGFD-CX9C4U2
VOLTAGE: 10~30V DC
RANGE: see E. G. curves
RESPONSE: 1ms
BEAM: infrared 880nm
FIBER: glass

FM18-TGFA-LX9C3U2
VOLTAGE: 24~240V AC
RANGE: see E. G. curves
RESPONSE: 4ms
BEAM: infrared 880nm
FIBER: glass



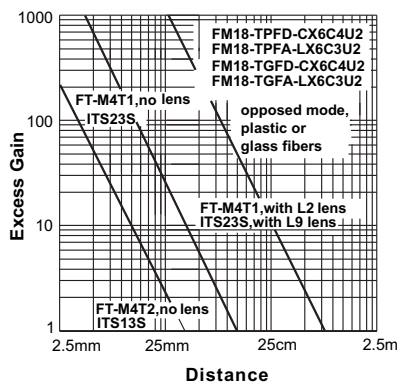
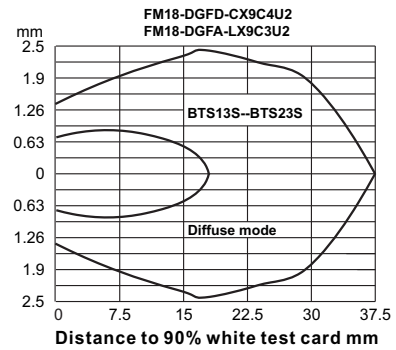
FM18-DGFD-CX9C4U2
VOLTAGE: 10~30V DC
RANGE: see E. G. curves
RESPONSE: 1ms
BEAM: infrared 880nm
FIBER: glass

FM18-DGFA-LX9C3U2
VOLTAGE: 24~240V AC
RANGE: see E. G. curves
RESPONSE: 4ms
BEAM: infrared 880nm
FIBER: glass



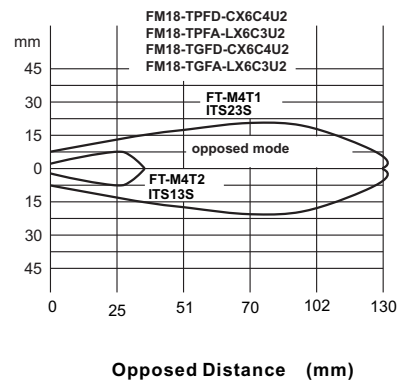
FM18-DGFD-CX9C4U2
VOLTAGE: 10~30V DC
RANGE: see E. G. curves
RESPONSE: 1ms
BEAM: infrared 880nm
FIBER: glass

FM18-DGFA-LX9C3U2
VOLTAGE: 24~240V AC
RANGE: see E. G. curves
RESPONSE: 4ms
BEAM: infrared 880nm
FIBER: glass



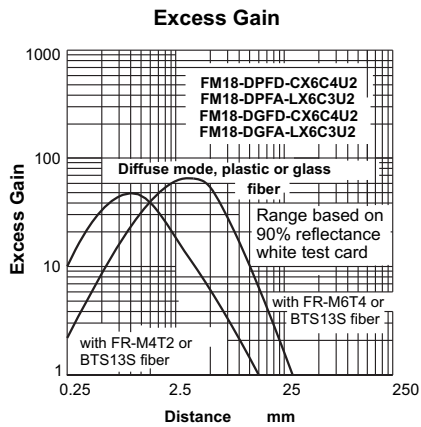
FM18-TPFD-CX6C4U2 or FM18-TGFD-CX6C4U2
VOLTAGE: 10~30V DC
RANGE: see E. G. curves
RESPONSE: 1ms
BEAM: red light 650nm
FIBER: plastic or glass

FM18-TPFA-LX6C3U2 or FM18-TGFA-LX6C3U2
VOLTAGE: 24~240V AC
RANGE: see E. G. curves
RESPONSE: 4ms
BEAM: red light 650nm
FIBER: plastic or glass



Sensing Characteristics (Typical)

Fiber Optic Mode

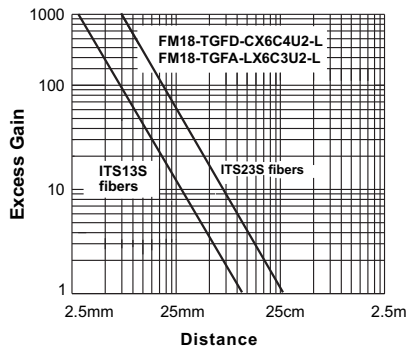
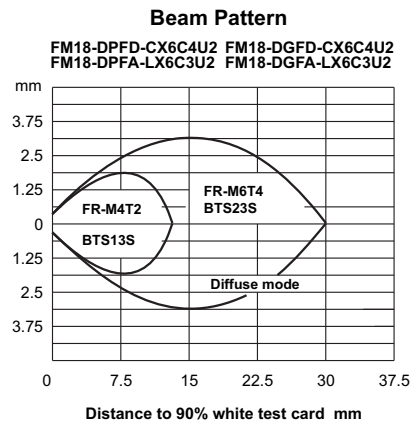


FM18-DPFD-CX6C4U2 or FM18-DGFD-CX6C4U2

VOLTAGE: 10~30V DC
RANGE: see E.G. curves
RESPONSE: 1ms
BEAM: red light 650nm
FIBER: plastic or glass

FM18-DPFA-LX6C3U2 or FM18-DGFA-LX6C3U2

VOLTAGE: 24~240V AC
RANGE: see E.G. curves
RESPONSE: 4ms
BEAM: red light 650nm
FIBER: plastic or glass

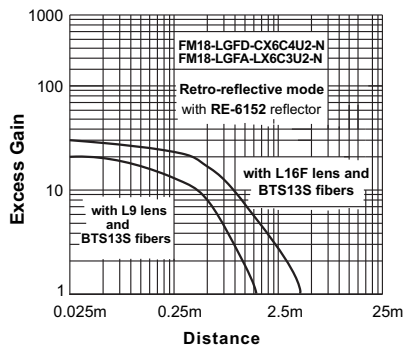
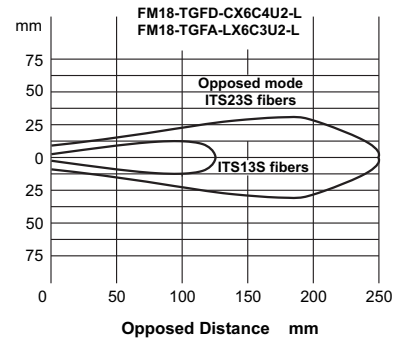


FM18-TGFD-CX6C4U2-L

VOLTAGE: 10~30V DC
RANGE: see E.G. curves
RESPONSE: 1ms
BEAM: red light 650nm
FIBER: glass

FM18-TGFA-LX6C3U2-L

VOLTAGE: 24~240V AC
RANGE: see E.G. curves
RESPONSE: 4ms
BEAM: red light 650nm
FIBER: glass

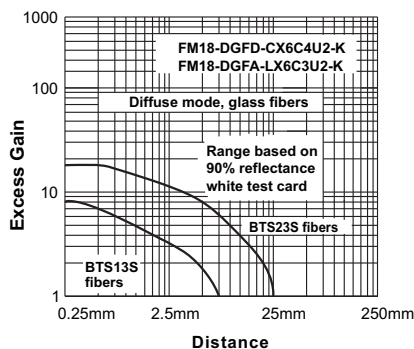
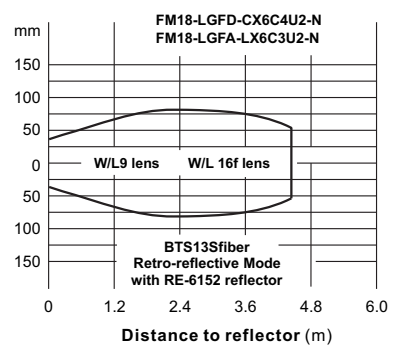


FM18-LGFD-CX6C4U2-N

VOLTAGE: 10~30V DC
RANGE: see E.G. curves
RESPONSE: 1ms
BEAM: red light 650nm
FIBER: glass

FM18-LGFA-LX6C3U2-N

VOLTAGE: 24~240V AC
RANGE: see E.G. curves
RESPONSE: 4ms
BEAM: red light 650nm
FIBER: glass

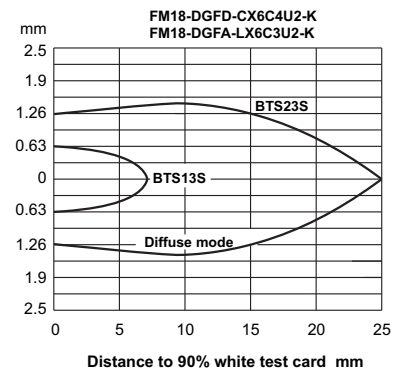


FM18-DGFD-CX6C4U2-K

VOLTAGE: 10~30V DC
RANGE: see E.G. curves
RESPONSE: 1ms
BEAM: red light 650nm
FIBER: glass

FM18-DGFA-LX6C3U2-K

VOLTAGE: 24~240V AC
RANGE: see E.G. curves
RESPONSE: 4ms
BEAM: red light 650nm
FIBER: glass

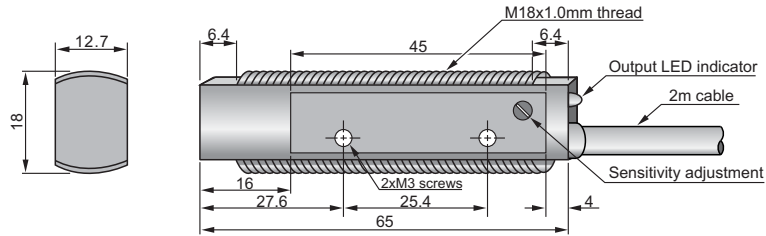


H: FM18 SERIES

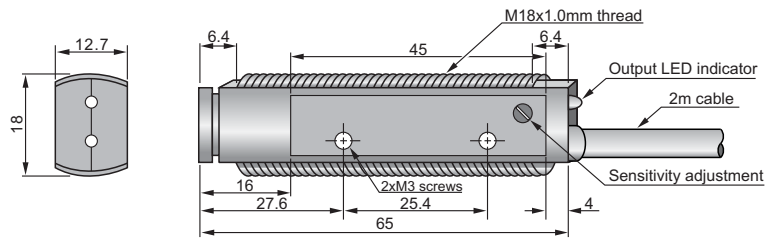
Dimensions (Unit: mm)

Cable Type Sensor

All Models except Fiber Optic Mode

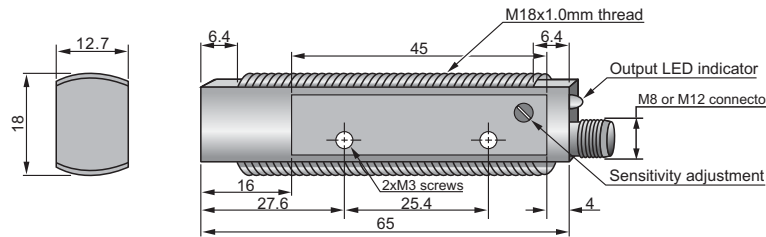


Fiber Optic Mode

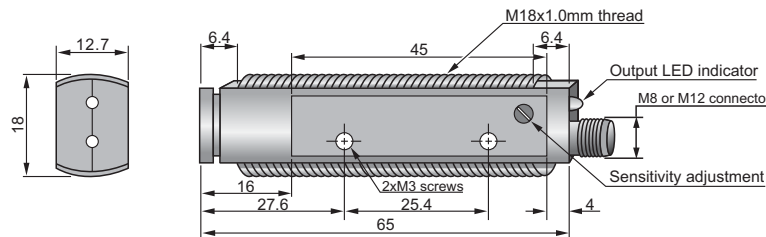


Connector Type Sensor

All Models except Fiber Optic Mode

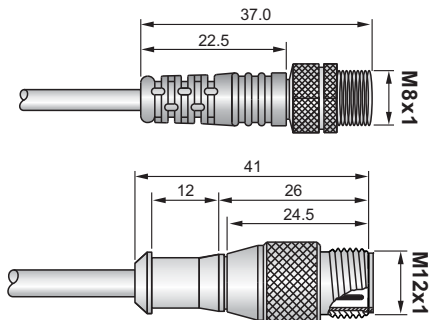


Fiber Optic Mode



H: FM18 SERIES

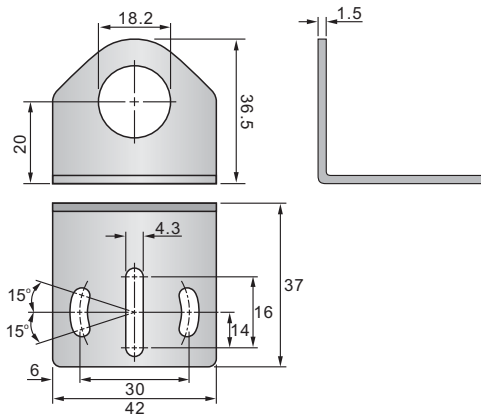
Pigtail* Type



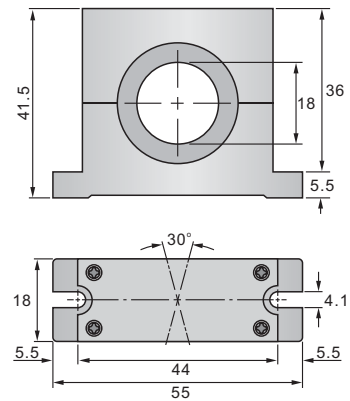
*: Please see **Pigtail Series** or our **Cables & Connectors** catalogue for more information.

Mounting Bracket's * Dimensions (Unit: mm)

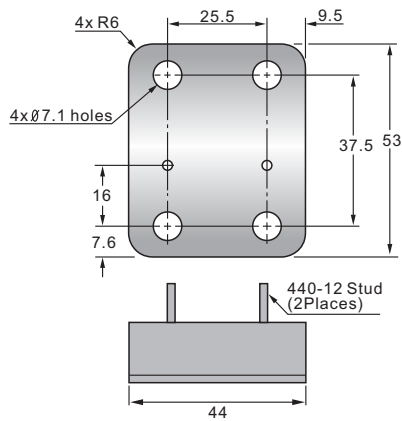
MB-4237 (optional)



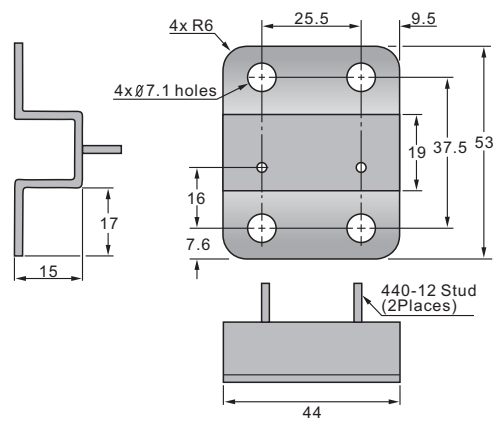
MB-5542 (optional)



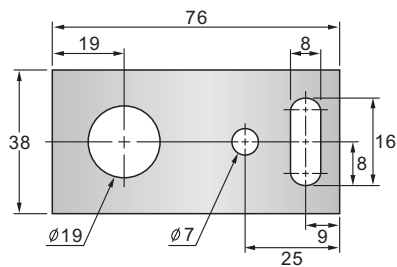
MB-5344A (optional)



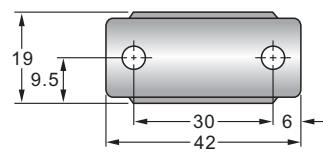
MB-5344B (optional)



MB-7638 (optional)

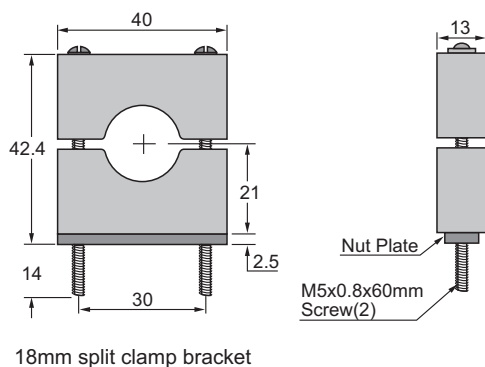


MB-4219 (optional)

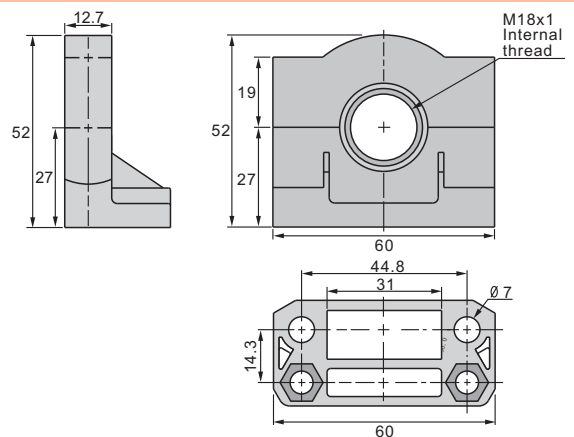


Allows 360° rotation and 10° vertical tilt.

MB-4240 (optional)



MB-6052 (optional)



*: Please see **Accessories** (Universal Mounting Brackets Series).

Mounting Bracket to Provide 360° Rotation

H: FM18 SERIES