



## FE-MLS8C/9C Series Long-Range AC Sensors

- Harsh-duty polycarbonate housing
- DPDT Relay
- Gun sight for easy mechanical alignment

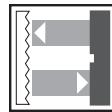


### Diffused Mode

See page 566

**Sensing Range:** 2.7m

**Output:** Relay



### Retro-Reflective Mode

See page 566

**Sensing Range:** 12m

**Output:** Relay

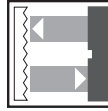
See pages 567-568 for FE-MLS8C/9C Series specifications, wiring and dimensions.

# Photoelectric Sensors



## Diffused Mode

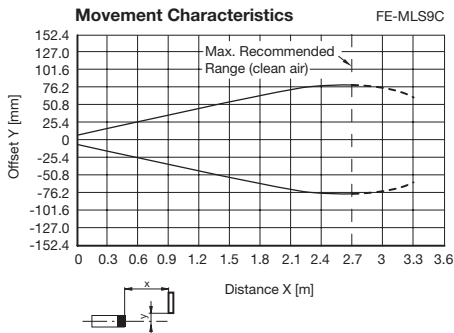
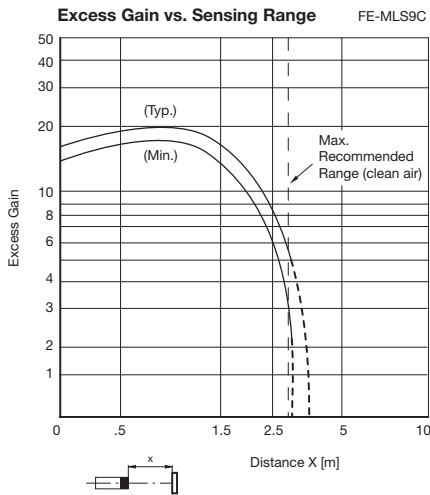
Specifications	
<b>SENSING RANGE</b>	<b>2.7m</b>
<b>SENSITIVITY ADJUSTMENT</b>	No
<b>MODEL NUMBER(S)</b>	<b>FE-MLS9C</b>
<b>OUTPUT</b>	DPDT relay
<b>SUPPLY VOLTAGE</b>	102-132VAC
<b>RESPONSE TIME</b>	≤30ms
<b>SWITCHING FREQUENCY</b>	16Hz
<b>APPROVALS</b> General Purpose	No
General Purpose	No
<b>ADDITIONAL DATA</b>	<b>See pages 567-568</b>



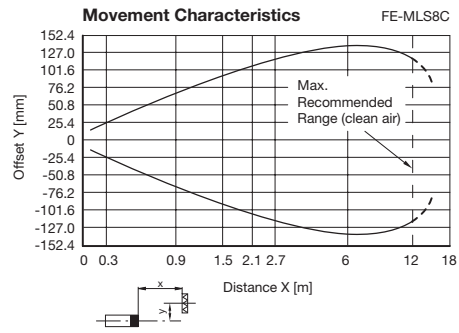
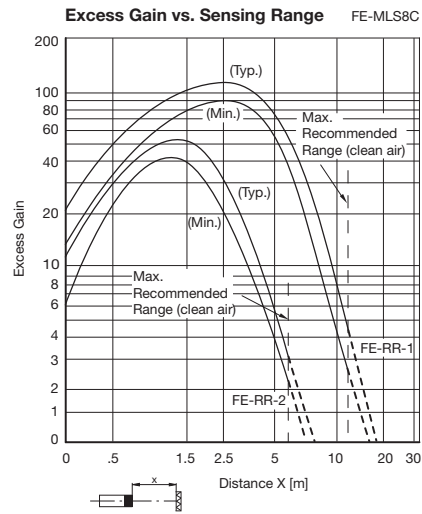
## Retro-Reflective Mode

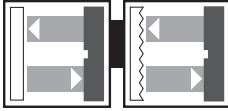
Specifications	
<b>SENSING RANGE</b>	<b>12m</b>
<b>SENSITIVITY ADJUSTMENT</b>	Yes
<b>MODEL NUMBER(S)</b>	<b>FE-MLS8C</b>
<b>OUTPUT</b>	DPDT relay
<b>SUPPLY VOLTAGE</b>	102-132VAC
<b>RESPONSE TIME</b>	≤20ms
<b>SWITCHING FREQUENCY</b>	25Hz
<b>APPROVALS</b> General Purpose	Yes
General Purpose	Yes
<b>ADDITIONAL DATA</b>	<b>See pages 567-568</b>

### Sensing Characteristics



### Sensing Characteristics



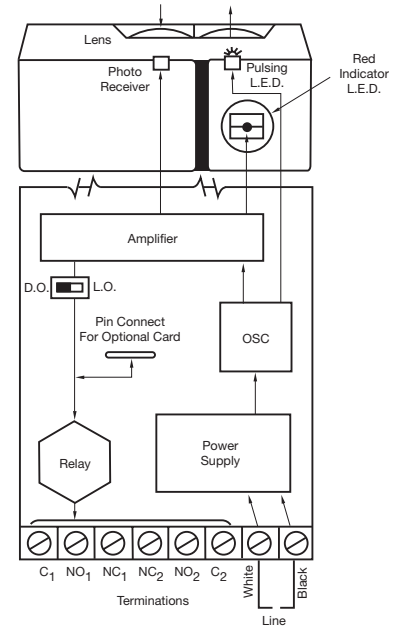


## Series Specifications

### FE-MLS8C/9C Series Specifications

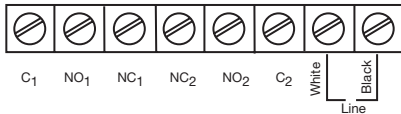
<b>ELECTRICAL CONTACT RATING</b>	115V/10A
<b>LED(s)</b>	Yes (1)
<b>POWER CONSUMPTION</b>	≤5VA
<b>MECHANICAL LIFE OF RELAY</b>	500,000 operations
<b>OPERATING MODE</b>	Light on/dark on
<b>PROTECTION (IEC)</b>	IP67
<b>LIGHT SOURCE</b>	Infrared LED
<b>TEMPERATURE RANGE</b>	-40°F to +158°F
<b>HOUSING MATERIAL</b>	Glass reinforced polycarbonate
<i>LENS</i>	Plastic
<b>ELECTRICAL CONNECTION</b>	Terminal connection

### FE-MLS8C and FE-MLS9C Functional Block Diagram

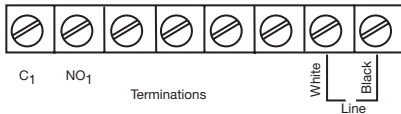


### FE-MLS8C Wiring and Alignment

- Remove the rear housing cover.
- Connect the load and load supply (common) to selected terminals. Standard relay connections shown below.



- Solid state relay connections shown below.



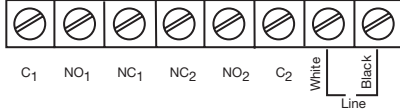
- Connect AC power (through the conduit opening) to the "LINE" terminals. The white and black input wires must be connected to the proper terminals. See the control nameplate for correct line voltage.
- Set the mode selector switch to the light operate (L.O.) position.

- Apply power. The alignment indicator light visible at the top of the control will remain OFF with no reflector present.
- Position the reflector opposite the lens. The indicator will turn On when control and reflector are in alignment.
- Center the reflector in the beam (by watching the indicator as the reflector is moved up, down, left and right). Use adhesive or a #8 screw (for the 3-inch disc) to mount the reflector.
- Block the invisible beam with the object to be detected. When the beam is blocked, the indicator will be Off.
- Fully tighten the mounting bolts, and again block the beam to recheck alignment.
- If direct On-Off dark operation is desired (relay energized when the beam is blocked), move the mode selector switch to the dark operate (D.O.) position.
- Insert optional function card firmly (if used) and adjust pots as required.
- Replace cover and tighten both screws.

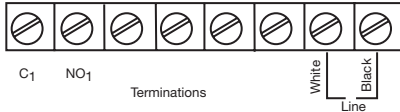
# Photoelectric Sensors

## FE-MLS9C Wiring and Alignment

1. Remove the rear housing cover.
- 2a. Connect the load and load supply (common) to selected terminals. Standard relay connections shown below.



- 2b. Solid state relay connections shown below.

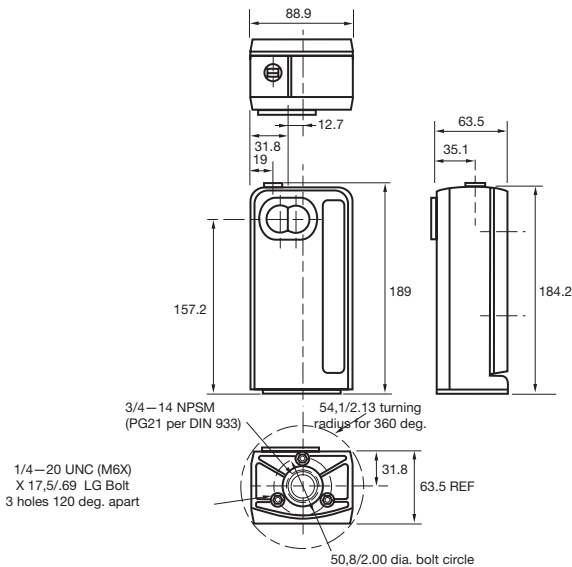


3. Connect AC power (through the conduit opening) to the "LINE" terminals. The white and black input wires must be connected to the proper terminals. See the control nameplate for correct line voltage.
4. Set the mode selector switch to the light operate (L.O.) position.

5. Apply power. The alignment indicator light visible at the top of the control will remain OFF with no reflector present.
6. Position the reflector opposite the lens. The indicator will turn On when control and reflector are in alignment.
7. Center the reflector in the beam (by watching the indicator as the reflector is moved up, down, left and right). Use adhesive or a #8 screw (for the 3-inch disc) to mount the reflector.
8. Block the invisible beam with the object to be detected. When the beam is blocked, the indicator will be Off.
9. Fully tighten the mounting bolts, and again block the beam to recheck alignment.
10. If direct On-Off dark operation is desired (relay energized when the beam is blocked), move the mode selector switch to the dark operate (D.O.) position.
11. Insert optional function card firmly (if used) and adjust pots as required.
12. Replace cover and tighten both screws.

## Dimensions (mm)

### FE-MLS8C and FE-MLS9C Sensors



## Accessories

(Dimensions in mm)

### Mounting Bracket Model FE-MB8

