

### Various Accessories Expand the Usefulness of the Fiber-Optic Cables

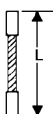
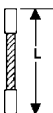
- Lenses extend sensing distances
- Side-view attachments provide space savings
- Flexible stainless steel tubes protect plastic fibers from mechanical damage
- Thin fiber adapters as replacement
- Splices for 2.2 mm fiber can be used to repair cut fiber

### Ordering Information

#### ■ ATTACHMENTS

| Description                                                                          | Part number    |
|--------------------------------------------------------------------------------------|----------------|
| Focusing lens pair (use with E32-TC50/200/500/1000, E32-T11(L), E32-TC200C, E32-T61) | <b>E39-F1</b>  |
| Side-view reflector pair                                                             | <b>E39-F2</b>  |
| Convergent beam conversion kit (to fit fibers that accept E39-F1 lenses)             | <b>E39-F3</b>  |
| Pinpoint focusing lens (for E32-D32)                                                 | <b>E39-F3A</b> |
| Side-view diffuse reflective conversion kit (for through-beam fibers)                | <b>E39-F5</b>  |

#### ■ PROTECTIVE STAINLESS STEEL FLEXIBLE TUBES FOR PLASTIC FIBERS

| Description                                                       | Appearance                                                                                       | Length (L) | Part number      |
|-------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------|------------------|
| E32-DC200E, E32-DC200F(4), E32-D21, E32-D21L                      |  Single tubes | 0.5 m      | <b>E39-F32A5</b> |
|                                                                   |                                                                                                  | 1 m        | <b>E39-F32A</b>  |
| E32-DC200, E32-DC200B(4), E32-CC200, E32-D11<br>E32-D11L, E32-D51 |                                                                                                  | 0.5 m      | <b>E39-F32D5</b> |
|                                                                   |                                                                                                  | 1 m        | <b>E39-F32D</b>  |
| E32-TC200E, E32-TC200F(4), E32-T21, E32-T12L                      |  Pairs        | 0.5 m      | <b>E39-F32B5</b> |
| E32-TC200, E32-TC200B(4), E32-T11, E32-T11L,<br>E32-T51L          |                                                                                                  | 1 m        | <b>E39-F32B</b>  |
|                                                                   |                                                                                                  | 0.5 m      | <b>E39-F32C5</b> |
|                                                                   |                                                                                                  | 1 m        | <b>E39-F32C</b>  |

#### ■ ADAPTERS/REPAIR PARTS

| Description                                                                 | Part number    |
|-----------------------------------------------------------------------------|----------------|
| Thin fiber adapter (1.0 mm to 2.2 mm dia.)                                  | <b>E39-F9</b>  |
| Splice for 2.2 mm dia. fiber (except E32-T51/E32-D51)                       | <b>E39-F10</b> |
| Fiber cutting tool (supplied with each trimmable plastic fiber optic cable) | <b>E39-F4</b>  |
| Fiber probe bending tool                                                    | <b>E39-F11</b> |
| Mounting bracket replacement for E32-T16 (order two)                        | <b>E39-L4</b>  |

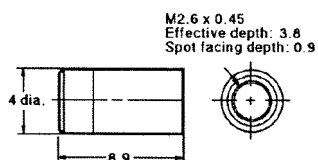
## Dimensions

Unit: mm (inch)

### ■ ATTACHMENTS

#### E39-F1

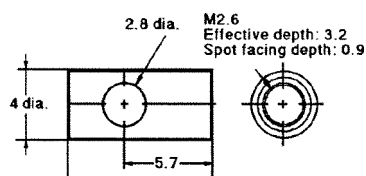
##### Lens kit (pair)



Note: One set includes two units.

#### E39-F2

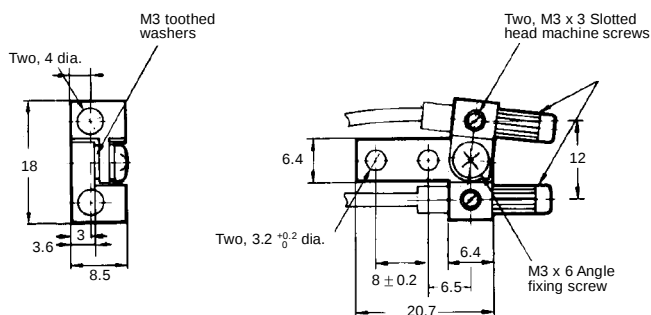
##### Side-view attachment (pair)



Note: One set includes two units.

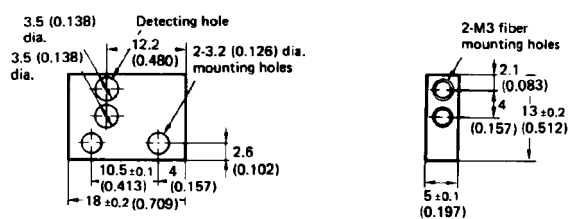
#### E39-F3

##### Convergent beam conversion kit



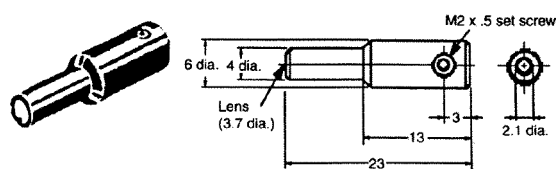
#### E39-F5

##### Side-view diffuse reflective conversion kit



#### E39-F3A

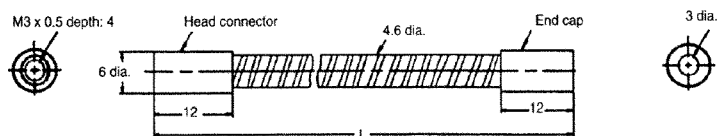
##### Reflective unit lens (Allen wrench included)



### ■ PROTECTIVE STAINLESS STEEL TUBES

#### E39-F32A, E39-F32A5

#### E39-F32B, E39-F32B5

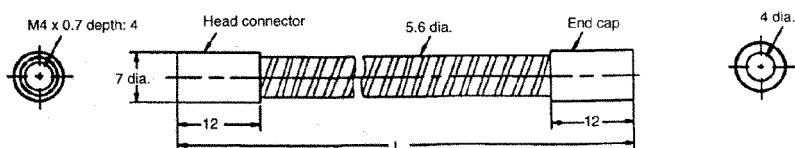


Note: 1. L is as follows:  
E39-F32A and E39-F32B: 1,000  
E39-F32A5, E39-F32B5: 500

2. These are sold as pairs.

Unit: mm (inch)

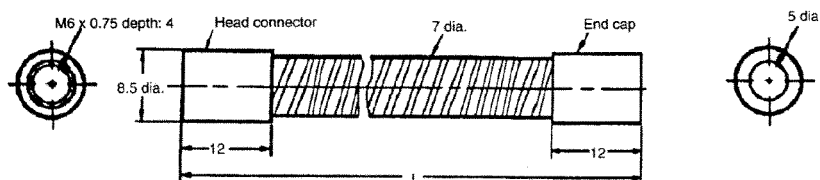
### E39-F32C, E39-F32C5



Note: 1. L is as follows:  
E39-F32C: 1,000  
E39-F32C5: 500

2. These are sold as single pairs.

### E39-F32D, E39-F32D5



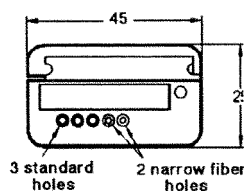
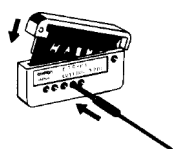
Note: 1. L is as follows:  
E39-F32D: 1,000  
E39-F32D5: 500

2. These are sold as single tubes.

## ADAPTERS/REPAIR PARTS

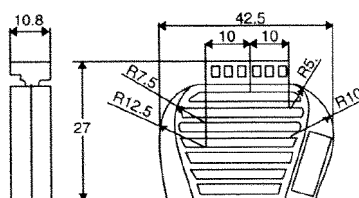
### E39-F4

#### Fiber cutter



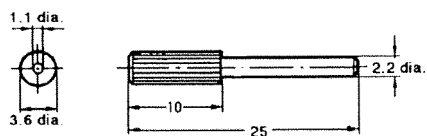
### E39-F11

#### Bending tool



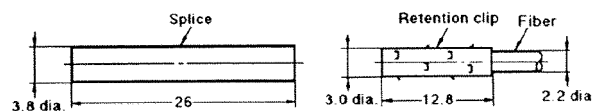
### E39-F9

#### Attachment for thin fiber



### E39-F10

#### Fiber connector

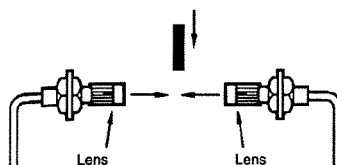


## Installation

### ■ INSTALLING ACCESSORIES

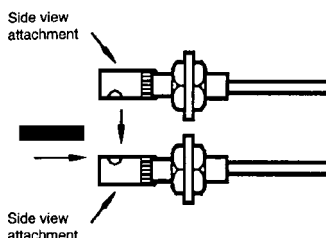
#### E39-F1 Lens Kit

This pair of lenses increases the sensing distance of selected fiber-optic cables. To install, screw each lens onto the threaded tip of each sensing head.



| Amplifier   | Sensing distance with fiber-optic cables |                     |                     |                     |                     |                     |                     |                     |                     |                     |
|-------------|------------------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Part number | Fiber-optic cable                        | E32-T11             | E32-T11L            | E32-T11R            | E32-TC50            | E32-TC200           | E32-TC200C          | E32-TC500           | E32-TC1000          | E32-T61             |
| E3X-A       | w/ lens                                  | 1 m<br>(3.3 ft)     | 1 m<br>(3.3 ft)     | 1 m<br>(3.3 ft)     | 1.5 m<br>(4.9 ft)   | 1.5 m<br>(4.9 ft)   | 800 mm<br>(31.5 in) | 1.5 m<br>(4.9 ft)   | 1 m<br>(3.3 ft)     | 1.5 m<br>(4.9 ft)   |
|             | w/o lens                                 | 180 mm<br>(7.1 in)  | 350 mm<br>(13.8 in) | 140 mm<br>(5.5 in)  | 200 mm<br>(7.9 in)  | 200 mm<br>(7.9 in)  | 150 mm<br>(5.9 in)  | 200 mm<br>(7.9 in)  | 500 mm<br>(19.7 in) | 150 mm<br>(5.9 in)  |
| E3X-DA      | w/ lens                                  | 4 m<br>(13.1 ft)    | 4 m<br>(13.1 ft)    | 4 m<br>(13.1 ft)    | Contact<br>Omron    | 4 m<br>(13.1 ft)    | Contact<br>Omron    | Contact<br>Omron    | Contact<br>Omron    | 4 m<br>(13.1 ft)    |
|             | w/o lens                                 | 850 mm<br>(33.5 in) | 1.66 m<br>(5.5 ft)  | 670 mm<br>(26.4 in) | Contact<br>Omron    | 950 mm<br>(37.4 in) | Contact<br>Omron    | Contact<br>Omron    | Contact<br>Omron    | 570 mm<br>(22.4 in) |
| E3X-F       | w/ lens                                  | 400 mm<br>(15.8 in) | 550 mm<br>(21.7 in) | Contact<br>Omron    | —                   | 670 mm<br>(26.4 in) | 350 mm<br>(13.8 in) | —                   | 1 m<br>(3.3 ft)     | 450 mm<br>(17.7 in) |
|             | w/o lens                                 | 80 mm<br>(3.2 in)   | 150 mm<br>(5.9 in)  | Contact<br>Omron    | —                   | 80 mm<br>(3.1 in)   | 60 mm<br>(2.4 in)   | —                   | 500 mm<br>(19.7 in) | 60 mm<br>(2.4 in)   |
| E3X-H       | w/ lens                                  | 2 m<br>(6.6 ft)     | 2 m<br>(6.6 ft)     | 2.1 m<br>(6.9 ft)   | 3 m<br>(9.8 ft)     | 3 m<br>(9.8 ft)     | 1.6 m<br>(5.2 ft)   | 3 m<br>(9.8 ft)     | 1 m<br>(3.3 ft)     | 3 m<br>(9.8 ft)     |
|             | w/o lens                                 | 360 mm<br>(14.2 in) | 700 mm<br>(27.6 in) | 280 mm<br>(11.0 in) | 400 mm<br>(15.7 in) | 400 mm<br>(15.7 in) | 300 mm<br>(11.8 in) | 400 mm<br>(15.7 in) | 500 mm<br>(19.7 in) | 300 mm<br>(11.8 in) |
| E3X-NH      | w/ lens                                  | 2 m<br>(6.6 ft)     | 2 m<br>(6.6 ft)     | 2.1 m<br>(6.9 ft)   | Contact<br>Omron    | 3 m<br>(9.8 ft)     | 3.6 m<br>(11.8 ft)  | Contact<br>Omron    | Contact<br>Omron    | 3 m<br>(9.8 ft)     |
|             | w/o lens                                 | 360 mm<br>(14.2 in) | 700 mm<br>(27.6 in) | 280 mm<br>(11.0 in) | Contact<br>Omron    | 400 mm<br>(15.7 in) | 300 mm<br>(11.8 in) | Contact<br>Omron    | Contact<br>Omron    | 300 mm<br>(11.8 in) |
| E3X-NHB     | w/ lens                                  | 250 mm<br>(9.8 in)  | 250 mm<br>(9.8 in)  | Contact<br>Omron    | Contact<br>Omron    | 420 mm<br>(16.5 in) | Contact<br>Omron    | Contact<br>Omron    | Contact<br>Omron    | Contact<br>Omron    |
|             | w/o lens                                 | 90 mm<br>(3.5 in)   | 90 mm<br>(3.5 in)   | Contact<br>Omron    | Contact<br>Omron    | 55 mm<br>(2.2 in)   | Contact<br>Omron    | Contact<br>Omron    | Contact<br>Omron    | Contact<br>Omron    |
| E3X-NM      | w/ lens                                  | 1.3 m<br>(4.3 ft)   | 1.2 m<br>(3.9 ft)   | 1.3 m<br>(4.3 ft)   | Contact<br>Omron    | 2 m<br>(6.6 ft)     | 800 mm<br>(31.5 in) | Contact<br>Omron    | Contact<br>Omron    | 2 m<br>(6.6 ft)     |
|             | w/o lens                                 | 240 mm<br>(9.4 in)  | 500 mm<br>(19.7 in) | 180 mm<br>(7.1 in)  | Contact<br>Omron    | 270 mm<br>(10.6 in) | 200 mm<br>(7.9 in)  | Contact<br>Omron    | Contact<br>Omron    | 180 mm<br>(7.1 in)  |
| E3X-NT      | w/ lens                                  | 1.4 m<br>(4.6 ft)   | 1.28 m<br>(4.2 ft)  | 1.4 m<br>(4.6 ft)   | Contact<br>Omron    | 2.1 m<br>(6.9 ft)   | 850 mm<br>(33.5 in) | Contact<br>Omron    | Contact<br>Omron    | 2.1 m<br>(6.9 ft)   |
|             | w/o lens                                 | 260 mm<br>(10.2 in) | 540 mm<br>(21.3 in) | 200 mm<br>(7.9 in)  | Contact<br>Omron    | 290 mm<br>(11.4 in) | 210 mm<br>(8.3 in)  | Contact<br>Omron    | Contact<br>Omron    | 190 mm<br>(7.5 in)  |
| E3X-NV      | w/ lens                                  | 1.4 m<br>(4.6 ft)   | 1.28 m<br>(4.2 ft)  | 1.4 m<br>(4.6 ft)   | Contact<br>Omron    | 2.1 m<br>(6.9 ft)   | 850 mm<br>(33.5 in) | Contact<br>Omron    | Contact<br>Omron    | 2.1 m<br>(6.9 ft)   |
|             | w/o lens                                 | 260 mm<br>(10.2 in) | 540 mm<br>(21.3 in) | 200 mm<br>(7.9 in)  | Contact<br>Omron    | 290 mm<br>(11.4 in) | 210 mm<br>(8.3 in)  | Contact<br>Omron    | Contact<br>Omron    | 190 mm<br>(7.5 in)  |
| E3X-NVG     | w/ lens                                  | 120 mm<br>(4.7 in)  | 120 mm<br>(4.7 in)  | Contact<br>Omron    | Contact<br>Omron    | 190 mm<br>(7.5 in)  | 100 mm<br>(3.9 in)  | Contact<br>Omron    | Contact<br>Omron    | 130 mm<br>(5.1 in)  |
|             | w/o lens                                 | 10 mm<br>(0.4 in)   | 40 mm<br>(1.6 in)   | Contact<br>Omron    | Contact<br>Omron    | 28 mm<br>(1.1 in)   | 18 mm<br>(0.7 in)   | Contact<br>Omron    | Contact<br>Omron    | 18 mm<br>(0.7 in)   |
| E3X-VG      | w/ lens                                  | 120 mm<br>(4.7 in)  | 120 mm<br>(4.7 in)  | Contact<br>Omron    | 190 mm<br>(7.5 in)  | 190 mm<br>(7.5 in)  | 100 mm<br>(3.9 in)  | —                   | 1 m<br>(3.3 ft)     | 130 mm<br>(5.1 in)  |
|             | w/o lens                                 | 10 mm<br>(0.4 in)   | 40 mm<br>(1.6 in)   | Contact<br>Omron    | 28 mm<br>(1.1 in)   | 28 mm<br>(1.1 in)   | 18 mm<br>(0.7 in)   | —                   | 500 mm<br>(19.7 in) | 18 mm<br>(0.7 in)   |

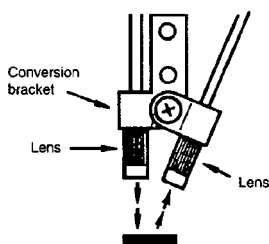
### E39-F2 Side View Attachment



These attachments provide 90° angle viewing for through-beam cables. Use them with E32-TC50, E32-TC200 and E32-TC200C plastic filament cables and E32-T61 glass filament cables. Screw each piece onto the threaded tip of each sensing head.

Note: This attachment does not increase sensing distance.

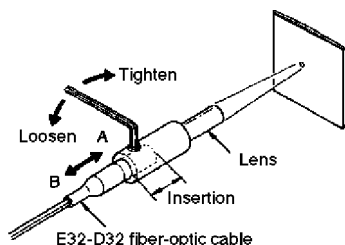
### E39-F3 Diffuse Reflective Conversion Bracket



This bracket converts through-beam fiber cables for diffuse reflective sensing. Use it with E32-TC50, E32-TC200 and E32-TC200C plastic filament cables. A set of E39-F1 lenses are supplied with this conversion bracket. To install, first remove the mounting nuts from the fiber-optic sensing heads. Then loosen the two set screws on the bracket. Insert the sensing

ends through the bracket, then attach the lenses. Tighten the two set screws to hold the sensing heads in place. Mount the bracket at the detection site, then loosen the large center screw to adjust the angle. When the angle that produces reliable detection has been found, tighten the screw to retain that angle.

### E39-F3A Reflective Unit Lens (for E32-D32 Fiber)



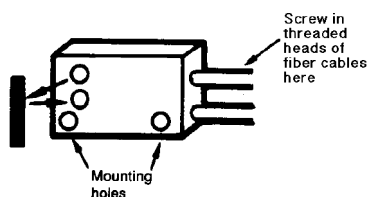
When E39-F3A is attached to an E32-D32 fiber, adjust the focal point so that the amplifier will not detect its own light reflected from inside the E39-F3A.

Place the object to be detected or white paper at the sensing distance, then adjust the insertion depth of the fiber into the

E39-F3A so that the light spot is as small as possible. Then fasten the sensing head using the Allen head wrench supplied with the E39-F3A.

In the example shown,  
A = The focus is farther than the E39-F3A  
B = The focus is closer than the E39-F3A.

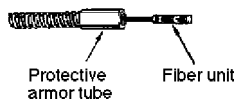
### E39-F5 Diffuse Reflective Side View Conversion Block



This reflective side view block may be used with E32-TC200A plastic filament fiber-optic cable only. It provides a 2 cm (0.79 in) sensing distance. To install, first remove mounting nuts and washers from fiber-optic sensing head. Then, screw the threaded heads as far as they will go onto the mounting holes on the narrow side of the block.

### Protective Stainless Steel Tubes

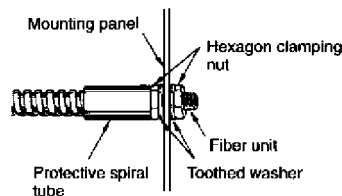
Insert the fiber into the protective armor tube from the head connector side (threaded) of the tube.



Push the fiber into the armor tube. The tube should be straight so that the fiber is not twisted when inserted. Then turn the end cap of the tube.

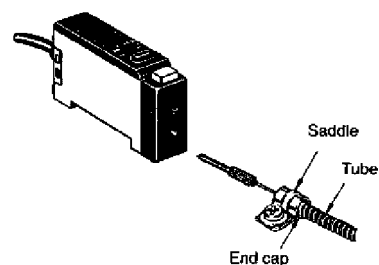


Secure the tube on a suitable place with the attached nut.



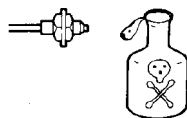
Use the attached saddle to secure the end cap of the tube. To secure the tube at a

position other than at the end cap, apply tape to the tube so that the portion becomes thicker in diameter



### Chemical Resistance

Do NOT use a fiber-optic cable and amplifier in an atmosphere containing organic solvents such as paint thinner vapors.



**NOTE: DIMENSIONS ARE SHOWN IN MILLIMETERS. To convert millimeters to inches divide by 25.4.**

# OMRON

**OMRON ELECTRONICS, INC.**

One East Commerce Drive  
Schaumburg, IL 60173  
**1-800-55-OMRON**

**OMRON CANADA, INC.**

885 Milner Avenue  
Scarborough, Ontario M1B 5V8  
**416-286-6465**

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: [org@lifeelectronics.ru](mailto:org@lifeelectronics.ru)

[www.lifeelectronics.ru](http://www.lifeelectronics.ru)