

# Proximity Sensor Accessories

## Y92E

### Proximity Sensor Accessories to Mount, Protect and Optimize Sensor Efficiency

- General purpose plastic mounting brackets
- Spring mount threaded cylindrical housings in anodized aluminum and stainless steel to reduce sensor damage due to collisions
- Spring mount blocks in anodized aluminum or stainless steel
- Fast mount cylindrical tubes in nickel-plated brass and Fluoroplastic coated versions simplifies mounting and eliminates sensor positioning
- Fluoroplastic sensor caps and ceramic face discs protect sensor face from heat and abrasion
- Threaded metal block mounts
- Flat and right angle brackets in CRS or stainless steel fixed or adjustable versions
- Weld jacket for cable and cordset protection



## ■ General Purpose Plastic Mounting Brackets

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Description                        | Applicable sensor series                                                                     | Model     |
|------------------------------------|----------------------------------------------------------------------------------------------|-----------|
| Fits 3.5 mm dia. unthreaded sensor | E2C-C (Stainless Bracket)                                                                    | Y92E-F3R5 |
| Fits M5 size sensors               | E2C-C (Stainless Bracket)                                                                    | Y92E-F5R4 |
| Fits M8 size sensors               | E2E, E2A, E2F, E2C-T, E2C, E2C-H, E3HT                                                       | Y92E-B8   |
| Fits M12 size sensors              | E2E, E2E2, E2A, E2F, E2C, E2EC, E2K-X, E2FQ, E2EQ, E2C-H, E2EV                               | Y92E-B12  |
| Fits M18 size sensors              | E2E, E2E2, E2A, E2F, E2C, E2K-X, E2KQ, E2FQ, E2EQ, E2ES, E2C-H, E2EV, E2EY, E2EZ, F92A, E3F2 | Y92E-B18  |
| Fits M30 size sensors              | E2E, E2E2, E2A, E2F, E2C, E2K-X, E2FQ, E2EQ, E2ES, E2EV, E2EY, E2EZ, B7AP                    | Y92E-B30  |

## Dimensions

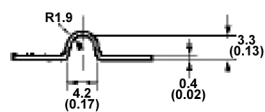
Unit: mm (inch)

### Mounting Brackets

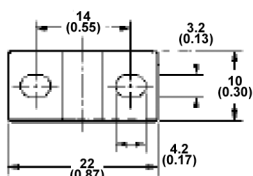
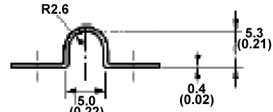


| Drawing dimensions |             |           |           |           |              | Model    |
|--------------------|-------------|-----------|-----------|-----------|--------------|----------|
| A                  | B max.      | C         | D dia.    | E max.    | F            |          |
| 18±0.2 (0.71±0.01) | 10 (0.39)   | 18 (0.71) | 8 (0.31)  | 28 (1.10) | M4 x 20 bolt | Y92E-B8  |
| 24±0.2 (0.94±0.01) | 12.5 (0.49) | 20 (0.79) | 12 (0.47) | 37 (1.46) | M4 x 25 bolt | Y92E-B12 |
| 32±0.2 (1.26±0.01) | 17 (0.67)   | 30 (1.18) | 18 (0.71) | 47 (1.85) | M5 x 32 bolt | Y92E-B18 |
| 45±0.2 (1.77±0.01) | 17 (0.67)   | 50 (1.97) | 30 (1.18) | 60 (2.36) | M5 x 50 bolt | Y92E-B30 |

Y92E-F3R5



Y92E-F5R4



## ■ Replacement Mounting Hardware (2 Locknuts and 1 Washer)

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Description                                                       |                       | Model           |
|-------------------------------------------------------------------|-----------------------|-----------------|
| Mounting hardware including one pair of metal nuts and one washer | Fits M8 size sensors  | <b>M8-MHWS</b>  |
|                                                                   | Fits M12 size sensors | <b>M12-MHWS</b> |
|                                                                   | Fits M18 size sensors | <b>M18-MHWS</b> |
|                                                                   | Fits M30 size sensors | <b>M30-MHWS</b> |

## ■ Swiveling Universal Mounting Bracket

Attach threaded barrel photoelectric, ultrasonic and proximity sensors as well as limit switch-style devices having M30 threaded bases. Achieve easy flexible aiming and secure mounting with these durable, glass-filled nylon brackets. Simplifies sensor installation and setup, designed for M12, M18 and M30 Threaded Sensors.



### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Thread    | Model               |
|-----------|---------------------|
| M12 x 1   | <b>Y92E-SUMB-12</b> |
| M18 x 1   | <b>Y92E-SUMB-18</b> |
| M30 x 1.5 | <b>Y92E-SUMB-30</b> |

### Dimensions

Unit: mm (inch)



## ■ Proximity Sensor Spring Mount Threaded Housings

Acts as a  
shock absorber



Build compliance into your sensor mounting brackets to eliminate sensor damage due to target and tooling collisions. Spring mount threaded housings offer over-travel protection, resistance to abrasion, quicker installation and spare parts reduction. Spring mount threaded housings are available in anodized aluminum construction or in stainless steel versions for M8, M12, M18 and M30 shielded or unshielded proximity sensors. Plastic end caps are utilized to deflect targets approaching the sensor laterally and are included with the hardware.

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                       | Model         |
|-------------|---------------------------------------------------|---------------|
| M8          | Spring Mount for M8 Shielded Anodized Aluminum    | Y92E-GS08     |
| M8          | Spring Mount for M8 Unshielded Anodized Aluminum  | Y92E-GS08N    |
| M12         | Spring Mount for M12 Shielded Anodized Aluminum   | Y92E-GS12     |
| M12         | Spring Mount for M12 Unshielded Anodized Aluminum | Y92E-GS12N    |
| M18         | Spring Mount for M18 Shielded Anodized Aluminum   | Y92E-GS18     |
| M18         | Spring Mount for M18 Unshielded Anodized Aluminum | Y92E-GS18N    |
| M30         | Spring Mount for M30 Shielded Anodized Aluminum   | Y92E-GS30     |
| M30         | Spring Mount for M30 Unshielded Anodized Aluminum | Y92E-GS30N    |
| M8          | Spring Mount for M8 Shielded Stainless Steel      | Y92E-GS08-SS  |
| M8          | Spring Mount for M8 Unshielded Stainless Steel    | Y92E-GS08N-SS |
| M12         | Spring Mount for M12 Shielded Stainless Steel     | Y92E-GS12-SS  |
| M12         | Spring Mount for M12 Unshielded Stainless Steel   | Y92E-GS12N-SS |
| M18         | Spring Mount for M18 Shielded Stainless Steel     | Y92E-GS18-SS  |
| M18         | Spring Mount for M18 Unshielded Stainless Steel   | Y92E-GS18N-SS |
| M30         | Spring Mount for M30 Shielded Stainless Steel     | Y92E-GS30-SS  |
| M30         | Spring Mount for M30 Unshielded Stainless Steel   | Y92E-GS30N-SS |

## Dimensions

Unit: mm (inch)

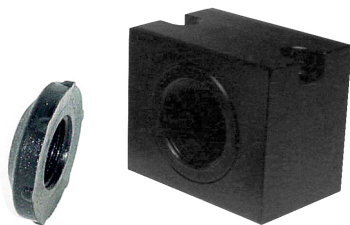
### Spring Mount Threaded Housings

Model numbers ending in "U" are unshielded type and are depicted on the right. "O" dimension in the table is total allowable over travel. Stainless Steel version dimensions are identical.



| A       | B           | C              | D              | E              | F              | G              | H              | I              | J              | O              | Model      |
|---------|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------|
| M8x1    | M16<br>x1.5 | 3.1<br>(0.12)  | 0.25<br>(0.01) | 22.1<br>(0.87) | 15.1<br>(0.59) | 5.1<br>(0.20)  | 22.1<br>(0.87) | N/A            | N/A            | 9.04<br>(0.35) | Y92E-GS08  |
|         |             |                |                |                |                |                |                | 9.51<br>(0.37) | 11<br>(0.43)   |                | Y92E-GS08N |
| M12x1   | M22<br>x1.5 | 4.06<br>(0.16) | 0.51<br>(0.02) | 28.6<br>(1.12) | 22.9<br>(0.90) | 6.35<br>(0.25) | 22.1<br>(0.87) | N/A            | N/A            | 10.4<br>(0.41) | Y92E-GS12  |
|         |             |                |                |                |                |                |                | 17.3<br>(0.68) | 14.7<br>(0.58) |                | Y92E-GS12N |
| M18x1   | M30<br>x1.5 | 5.10<br>(0.20) | 0.76<br>(0.03) | 35.8<br>(1.41) | 29.7<br>(1.17) | 8.38<br>(0.33) | 29.7<br>(1.17) | N/A            | N/A            | 12.4<br>(0.49) | Y92E-GS18  |
|         |             |                |                |                |                |                |                | 17.8<br>(0.70) | 23.9<br>(0.94) |                | Y92E-GS18N |
| M30x1.5 | M47<br>x1.5 |                |                | 51.0<br>(2.01) | 43.7<br>(1.72) | 7.62<br>(0.30) | 37.3<br>(1.47) | N/A            | N/A            | 14.5<br>(0.57) | Y92E-GS30  |
|         |             |                |                |                |                |                |                | 20.9<br>(0.90) | 38.6<br>(1.52) |                | Y92E-GS30N |

## ■ Proximity Sensor Spring Mount Blocks



**Shielded Models**



**Unshielded Models**

Offers the same protection as the threaded housings, available in anodized aluminum for M12, M18 and M30 shielded or unshielded proximity sensors. Plastic beveled end caps are included.

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

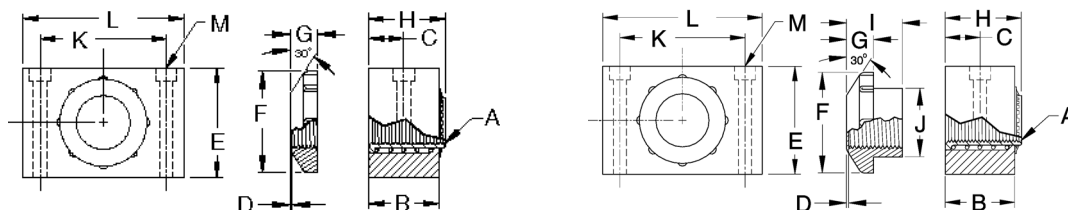
| Barrel size | Description                                             | Model              |
|-------------|---------------------------------------------------------|--------------------|
| M8          | Spring Mount Block for M8 Shielded Anodized Aluminum    | <b>Y92E-GSB08</b>  |
| M8          | Spring Mount Block for M8 Unshielded Anodized Aluminum  | <b>Y92E-GSB08N</b> |
| M12         | Spring Mount Block for M12 Shielded Anodized Aluminum   | <b>Y92E-GSB12</b>  |
| M12         | Spring Mount Block for M12 Unshielded Anodized Aluminum | <b>Y92E-GSB12N</b> |
| M18         | Spring Mount Block for M18 Shielded Anodized Aluminum   | <b>Y92E-GSB18</b>  |
| M18         | Spring Mount Block for M18 Unshielded Anodized Aluminum | <b>Y92E-GSB18N</b> |
| M30         | Spring Mount Block for M30 Shielded Anodized Aluminum   | <b>Y92E-GSB30</b>  |
| M30         | Spring Mount Block for M30 Unshielded Anodized Aluminum | <b>Y92E-GSB30N</b> |

### Dimensions

Unit: mm (inch)

#### Spring Mount Blocks

Model numbers ending in "N" are unshielded type and are depicted on the right, shielded models are depicted on the left. "O" dimension in the table is total allowable over travel. Dimensions for Stainless Steel versions are identical.



| A           | B              | C              | D              | E              | F              | G              | H              | I              | J              | K              | L              | M              | O              | Model       |
|-------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-------------|
| M8x1        | 19.0<br>(0.75) | 9.52<br>(0.37) | 0.25<br>(0.01) | 15.8<br>(0.62) | 15.2<br>(0.60) | 5.33<br>(0.21) | 22.1<br>(0.87) | N/A            | N/A            | 18.4<br>(0.72) | 25.4<br>(1.00) | 3.58<br>(0.14) | 8.89<br>(0.35) | Y92E-GSB08  |
|             |                |                |                |                |                |                |                | 9.51<br>(0.37) | 11<br>(0.43)   |                |                |                |                | Y92E-GSB08N |
| M12x1       |                |                | 0.51<br>(0.02) | 25.4<br>(1.00) | 22.9<br>(0.90) | 6.35<br>(0.25) |                | N/A            | N/A            | 24.8<br>(0.98) | 38.1<br>(1.50) | 5.16<br>(0.20) | 10.4<br>(0.41) | Y92E-GSB12  |
|             |                |                |                |                |                |                |                | 17.3<br>(0.68) | 14.7<br>(0.58) |                |                |                |                | Y92E-GSB12N |
| M18x1       | 25.4<br>(1.00) | 12.7<br>(0.50) | 0.76<br>(0.03) | 31.7<br>(1.25) | 29.7<br>(1.17) | 8.38<br>(0.33) | 29.7<br>(1.17) | N/A            | N/A            | 30.7<br>(1.21) |                | 4.60<br>(0.18) | 12.4<br>(0.47) | Y92E-GSB18  |
|             |                |                |                |                |                |                |                | 17.8<br>(0.70) | 23.9<br>(0.94) |                |                |                |                | Y92E-GSB18N |
| M30<br>x1.5 | 34.9<br>(1.38) | 17.5<br>(0.68) |                | 50.8<br>(2.00) | 43.7<br>(1.72) | 7.62<br>(0.30) | 37.4<br>(1.47) | N/A            | N/A            | 51.5<br>(2.03) | 63.5<br>(2.50) | 6.73<br>(0.26) | 14.5<br>(0.57) | Y92E-GSB30  |
|             |                |                |                |                |                |                |                | 22.9<br>(0.90) | 38.6<br>(1.52) |                |                |                |                | Y92E-GSB30N |

## ■ Replacement Beveled Plastic End Caps for Use with Spring Mounts



Replacement beveled plastic end caps only are available for spring mount threaded and block style housings. Please determine the Prox. Barrel size and if it is shielded or unshielded type. Shielded types are glass filled Nylon, unshielded types are Delrin®.

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| For barrel size | Description                                 | Model            |
|-----------------|---------------------------------------------|------------------|
| M8              | Replacement End Cap for M8 Prox Shielded    | <b>Y92E-ES08</b> |
| M8              | Replacement End Cap for M8 Prox Unshielded  | Y92E-ES08M       |
| M12             | Replacement End Cap for M12 Prox Shielded   | <b>Y92E-ES12</b> |
| M12             | Replacement End Cap for M12 Prox Unshielded | Y92E-ES12M       |
| M18             | Replacement End Cap for M18 Prox Shielded   | <b>Y92E-ES18</b> |
| M18             | Replacement End Cap for M18 Prox Unshielded | Y92E-ES18M       |
| M30             | Replacement End Cap for M30 Prox Shielded   | <b>Y92E-ES30</b> |
| M30             | Replacement End Cap for M30 Prox Unshielded | Y92E-ES30M       |

### Dimensions

Unit: mm (inch)

### Replacement Beveled Plastic Caps for Use with Spring Mount Housings



Shielded Type Glass Filled Nylon



Unshielded Type Delrin®

| A       | B              | C              | D              | E              | F              | Model      |
|---------|----------------|----------------|----------------|----------------|----------------|------------|
| M8x1    | 15.2<br>(.600) | 5.28<br>(.210) | 0.38<br>(.015) | 6.45<br>(.250) | N/A            | Y92E-ES08  |
|         | 14.5<br>(.570) | 5.08<br>(.200) |                |                | 9.50<br>(.370) | Y92E-ES08M |
| M12x1   | 24.4<br>(.960) | 6.35<br>(.250) | 0.76<br>(.030) | 11.4<br>(.450) | N/A            | Y92E-ES12  |
|         | 22.9<br>(.900) |                |                |                | 17.3<br>(.680) | Y92E-ES12M |
| M18x1   | 31.3<br>(1.23) | 8.38<br>(.330) |                | 17.5<br>(.730) | N/A            | Y92E-ES18  |
|         | 34.0<br>(1.34) |                |                |                | 17.8<br>(.700) | Y92E-ES18M |
| M30x1.5 | 43.7<br>(1.72) | 7.62<br>(.300) | 1.02<br>(.040) | 29.2<br>(1.15) | N/A            | Y92E-ES30  |
|         | 44.5<br>(1.75) | 7.87<br>(.310) |                |                | 22.9<br>(.900) | Y92E-ES30M |

## ■ Fast Mount Tubes, Fluoroplastic Coated Fast Mount Tubes and Fluoroplastic Resin Caps for Proximity Sensors



Install proximity sensors into the tube and simply twist to secure. Maintains sensing gap, reduces installation time. Standard versions are nickel-plated brass, Fluoroplastic coated versions protect the sensor from the harshest environments. Fluoroplastic resin end caps for fast mount tubes are also listed below. Dimensions differ from standard sensor caps for use on sensors not mounted in fast mount tubes. Caps are sold separately. Fast Mount Tubes are not Spring Loaded.

### Ordering Information

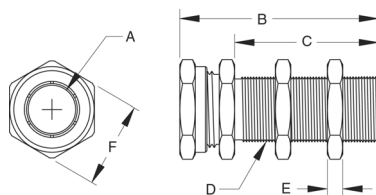
**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                                    | Model       |
|-------------|----------------------------------------------------------------|-------------|
| M8 Short    | Fast Mount Tube for M8 Short Barrel Prox NPB                   | Y92E-G08S   |
| M8 Long     | Fast Mount Tube for M8 Long Barrel Prox NPB                    | Y92E-G08L   |
| M12 Short   | Fast Mount Tube for M12 Short Barrel Prox NPB                  | Y92E-G12S   |
| M12 Long    | Fast Mount Tube for M12 Long Barrel Prox NPB                   | Y92E-G12L   |
| M18 Short   | Fast Mount Tube for M18 Short Barrel Prox NPB                  | Y92E-G18S   |
| M18 Long    | Fast Mount Tube for M18 Long Barrel Prox NPB                   | Y92E-G18L   |
| M30 Short   | Fast Mount Tube for M30 Short Barrel Prox NPB                  | Y92E-G30S   |
| M30 Long    | Fast Mount Tube for M30 Long Barrel Prox NPB                   | Y92E-G30L   |
| M8 Short    | Fast Mount Tube for M8 Short Barrel Prox Fluoroplastic Coated  | Y92E-G08S-T |
| M8 Long     | Fast Mount Tube for M8 Long Barrel Prox Fluoroplastic Coated   | Y92E-G08L-T |
| M12 Short   | Fast Mount Tube for M12 Short Barrel Prox Fluoroplastic Coated | Y92E-G12S-T |
| M12 Long    | Fast Mount Tube for M12 Long Barrel Prox Fluoroplastic Coated  | Y92E-G12L-T |
| M18 Short   | Fast Mount Tube for M18 Short Barrel Prox Fluoroplastic Coated | Y92E-G18S-T |
| M18 Long    | Fast Mount Tube for M18 Long Barrel Prox Fluoroplastic Coated  | Y92E-G18L-T |
| M30 Short   | Fast Mount Tube for M30 Short Barrel Prox Fluoroplastic Coated | Y92E-G30S-T |
| M30 Long    | Fast Mount Tube for M30 Long Barrel Prox Fluoroplastic Coated  | Y92E-G30L-T |
| M8          | Fluoroplastic Cap for M8 Prox mounted in a Fast Mount Tube     | Y92E-EG08-T |
| M12         | Fluoroplastic Cap for M12 Prox mounted in a Fast Mount Tube    | Y92E-EG12-T |
| M18         | Fluoroplastic Cap for M18 Prox mounted in a Fast Mount Tube    | Y92E-EG18-T |
| M30         | Fluoroplastic Cap for M30 Prox mounted in a Fast Mount Tube    | Y92E-EG30-T |

## Dimensions

Unit: mm (inch)

### Fast Mount Tubes



| A              | B              | C              | D       | E              | F              | Model     |
|----------------|----------------|----------------|---------|----------------|----------------|-----------|
| 8.18<br>(0.32) | 32.4<br>(1.28) | 17.5<br>(0.69) | M12x1   | 3.85<br>(0.15) | 16.9<br>(0.67) | Y92E-G08S |
|                | 48.0<br>(1.93) | 34.0<br>(1.34) |         |                |                | Y92E-G08L |
| 12.1<br>(0.48) | 33.7<br>(1.34) | 19.5<br>(0.77) | M16x1   | 4.01<br>(0.16) | 21.8<br>(0.86) | Y92E-G12S |
|                | 44.8<br>(1.76) | 30.0<br>(1.18) |         |                |                | Y92E-G12L |
| 18.1<br>(0.71) | 38.5<br>(1.52) | 20.0<br>(0.79) | M24x1.5 | 4.95<br>(0.19) | 30.0<br>(1.18) | Y92E-G18S |
|                | 58.0<br>(2.28) | 40.0<br>(1.57) |         |                |                | Y92E-G18L |
| 30.1<br>(1.19) | 35.0<br>(1.50) | 20.0<br>(0.79) | M36x1.5 | 6.13<br>(0.24) | 41.0<br>(1.61) | Y92E-G30S |
|                | 58.0<br>(2.28) | 40.0<br>(1.57) |         |                |                | Y92E-G30L |

### Fluoroplastic Resin Sensor Caps for use with Sensors in Fast Mount Tubes



| A       | B              | C              | D              | Model       |
|---------|----------------|----------------|----------------|-------------|
| M12x1   | 14.7<br>(0.58) | 8.89<br>(0.35) | 0.89<br>(.035) | Y92E-EG08-T |
| M16x1   | 19.1<br>(.750) | 7.11<br>(0.28) | 1.02<br>(.040) | Y92E-EG12-T |
| M24x1.5 | 28.4<br>(1.12) | 8.89<br>(0.35) | 1.27<br>(.0)   | Y92E-EG18-T |
| M36x1.5 | 41.1<br>(1.62) |                | 1.78<br>(.070) | Y92E-EG30-T |

## ■ Sensor Caps Standard Versions in Fluoroplastic or Ceramic (not for use with fast mount tubes)



### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                      | Model        |
|-------------|--------------------------------------------------|--------------|
| M12         | Fluoroplastic Sensor Cap for M12 Shielded Prox   | Y92E-SC12-T  |
| M12         | Fluoroplastic Sensor Cap for M12 Unshielded Prox | Y92E-SC12N-T |
| M12         | Ceramic Sensor Cap for M12 Shielded Prox         | Y92E-SC12-C  |
| M12         | Ceramic Sensor Cap for M12 Unshielded Prox       | Y92E-SC12N-C |
| M18         | Fluoroplastic Sensor Cap for M18 Shielded Prox   | Y92E-SC18-T  |
| M18         | Fluoroplastic Sensor Cap for M18 Unshielded Prox | Y92E-SC18N-T |
| M18         | Ceramic Sensor Cap for M18 Shielded Prox         | Y92E-SC18-C  |
| M18         | Ceramic Sensor Cap for M18 Unshielded Prox       | Y92E-SC18N-C |
| M30         | Fluoroplastic Sensor Cap for M30 Shielded Prox   | Y92E-SC30-T  |
| M30         | Fluoroplastic Sensor Cap for M30 Unshielded Prox | Y92E-SC30N-T |
| M30         | Ceramic Sensor Cap for M30 Shielded Prox         | Y92E-SC30-C  |
| M30         | Ceramic Sensor Cap for M30 Unshielded Prox       | Y92E-SC30N-C |

### Dimensions

Unit: mm (inch)

#### Sensor Caps Standard Versions in Fluoroplastic or Ceramic



| A       | B              | C              | D              | Model      |
|---------|----------------|----------------|----------------|------------|
| M12x1   | 14.7<br>(0.58) | 8.90<br>(0.35) | 0.89<br>(.035) | Y92E-SC12  |
|         |                | 15.2<br>(0.60) |                | Y92E-SC12N |
| M18x1   | 24.1<br>(0.95) | 8.90<br>(0.35) | 1.14<br>(.045) | Y92E-SC18  |
|         |                | 17.8<br>(0.70) |                | Y92E-SC18N |
| M30x1.5 | 38.1<br>(1.50) | 9.90<br>(0.39) | 2.03<br>(0.08) | Y92E-SC30  |
|         |                | 25.4<br>(1.00) |                | Y92E-SC30N |

## ■ Sensor Caps Standard Versions Polyallylate Resin (not for use with fast mount tubes)

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                           | Model            |
|-------------|-------------------------------------------------------|------------------|
| M12         | Polyallylate Resin Sensor Cap for M12 Shielded Prox   | <b>Y92E-E12</b>  |
| M12         | Polyallylate Resin Sensor Cap for M12 Unshielded Prox | <b>Y92E-E12M</b> |
| M18         | Polyallylate Resin Sensor Cap for M18 Shielded Prox   | <b>Y92E-E18</b>  |
| M18         | Polyallylate Resin Sensor Cap for M18 Unshielded Prox | <b>Y92E-E18M</b> |
| M30         | Polyallylate Resin Sensor Cap for M30 Shielded Prox   | <b>Y92E-E30</b>  |
| M30         | Polyallylate Resin Sensor Cap for M30 Unshielded Prox | <b>Y92E-E30M</b> |

### Dimensions

Unit: mm (inch)



| A       | B         | C  | D   | Model     |
|---------|-----------|----|-----|-----------|
| M12x1   | 14mm dia. | 5  | 0.5 | Y92E-E12  |
|         |           | 12 |     | Y92E-E12M |
| M18x1   | 21mm dia. | 6  | 1   | Y92E-E18  |
|         |           | 16 |     | Y92E-E18M |
| M30x1.5 | 33mm dia. | 8  | 1.5 | Y92E-E30  |
|         |           | 21 |     | Y92E-E30M |

## ■ Ceramic Face Disc

A ceramic face disc can be bonded to the sensing face of M12, M18 and M30 Proximity Sensors to protect the sensor from highly abrasive environments.



### Ordering Information

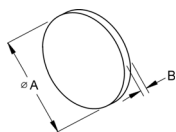
**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                    | Model            |
|-------------|--------------------------------|------------------|
| M8          | Ceramic Face Disc for M8 Prox  | <b>Y92E-CF08</b> |
| M12         | Ceramic Face Disc for M12 Prox | <b>Y92E-CF12</b> |
| M18         | Ceramic Face Disc for M18 Prox | <b>Y92E-CF18</b> |
| M30         | Ceramic Face Disc for M30 Prox | <b>Y92E-CF30</b> |

### Dimensions

Unit: mm (inch)

#### M8, M12, M18 and M30 Proximity Sensors



| A              | B              | Model     |
|----------------|----------------|-----------|
| 5.80<br>(0.23) | 0.3<br>(0.012) | Y92E-CF08 |
| 10.4<br>(0.41) |                | Y92E-CF12 |
| 15.2<br>(0.60) | 0.50<br>(.020) | Y92E-CF18 |
| 27.9<br>(1.10) |                | Y92E-CF30 |

## ■ Silicone Rubber Protective Covers

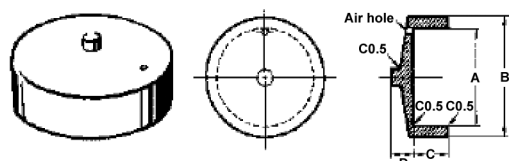
### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                   | Model      |
|-------------|-----------------------------------------------|------------|
| M12         | Silicone Rubber Protective Cover for M12 Prox | Y92E-E12-2 |
| M18         | Silicone Rubber Protective Cover for M18 Prox | Y92E-E18-2 |
| M30         | Silicone Rubber Protective Cover for M30 Prox | Y92E-E30-2 |

### Dimensions

Unit: mm (inch)



| Dimensions     |                |               |               | Model      |
|----------------|----------------|---------------|---------------|------------|
| A dia.         | B dia.         | C             | D             |            |
| 11.0<br>(0.43) | 14.0<br>(0.55) | 5.0<br>(0.20) | 1.0<br>(0.04) | Y92E-E12-2 |
| 17.0<br>(0.67) | 21.0<br>(0.83) | 6.0<br>(0.24) | 3.0<br>(0.12) | Y92E-E18-2 |
| 28.5<br>(1.12) | 33.0<br>(1.30) | 8.0<br>(0.32) | 6.0<br>(0.24) | Y92E-E30-2 |

## ■ Block Mounts Threaded Metal (Anodized Aluminum)



Install your proximity sensors into rugged heavy-duty anodized aluminum threaded block style mounts.

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                    | Model      |
|-------------|------------------------------------------------|------------|
| M8          | Block Mount Threaded Metal for M8 Barrel Prox  | Y92E-B08MT |
| M12         | Block Mount Threaded Metal for M12 Barrel Prox | Y92E-B12MT |
| M18         | Block Mount Threaded Metal for M18 Barrel Prox | Y92E-B18MT |
| M30         | Block Mount Threaded Metal for M30 Barrel Prox | Y92E-B30MT |

### Dimensions

Unit: mm (inch)

#### M8, M12, M18 and M30 Version



| A       | B              | C              | D              | E              | F              | G             | Model      |
|---------|----------------|----------------|----------------|----------------|----------------|---------------|------------|
| M12x1   | 25.4<br>(1.00) | 19.2<br>(.758) | 38.1<br>(1.50) | 25.0<br>(.980) | 6.60<br>(.260) | 10-32<br>SHCS | Y92E-B12MT |
| M18x1   | 31.8<br>(1.25) | 25.4<br>(1.00) |                | 30.7<br>(1.21) | 3.70<br>(.145) | 8-32<br>SHCS  | Y92E-B18MT |
| M30x1.5 | 50.8<br>(2.00) | 33.1<br>(1.30) | 63.5<br>(2.50) | 51.6<br>(2.03) | 5.97<br>(.235) | 1/4<br>SHCS   | Y92E-B30MT |

## ■ Flat and Right Angle Mounting Brackets

Brackets are available in fixed or slotted (adjustable) versions.



### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

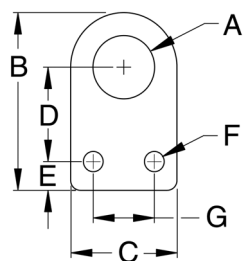
| For barrel size | Description                                                 | Model        |
|-----------------|-------------------------------------------------------------|--------------|
| M12             | Flat Bracket Fixed for M12 Prox 303 Stainless Steel         | Y92E-B12FS   |
| M18             | Flat Bracket Fixed for M18 Prox 303 Stainless Steel         | Y92E-B18FS   |
| M30             | Flat Bracket Fixed for M30 Prox 303 Stainless Steel         | Y92E-B30FS   |
| M8              | Flat Bracket Adjustable for M8 Prox Zinc-plated CRS         | Y92E-B08FRAS |
| M12             | Flat Bracket Adjustable for M12 Prox Zinc-plated CRS        | Y92E-B12FRAS |
| M18             | Flat Bracket Adjustable for M18 Prox Zinc-plated CRS        | Y92E-B18FRAS |
| M30             | Flat Bracket Adjustable for M30 Prox Zinc-plated CRS        | Y92E-B30FRAS |
| M12             | Right Angle Bracket Fixed for M12 Prox 303 SS               | Y92E-B12AS   |
| M18             | Right Angle Bracket Fixed for M18 Prox 303 SS               | Y92E-B18AS   |
| M30             | Right Angle Bracket Fixed for M30 Prox 303 SS               | Y92E-B30AS   |
| M8              | Right Angle Bracket Adjustable for M8 Prox Zinc-plated CRS  | Y92E-B08RAS  |
| M12             | Right Angle Bracket Adjustable for M12 Prox Zinc-plated CRS | Y92E-B12RAS  |
| M18             | Right Angle Bracket Adjustable for M18 Prox Zinc-plated CRS | Y92E-B18RAS  |
| M30             | Right Angle Bracket Adjustable for M30 Prox Zinc-plated CRS | Y92E-B30RAS  |

### Dimensions

Unit: mm (inch)

#### Flat Bracket Fixed Hole

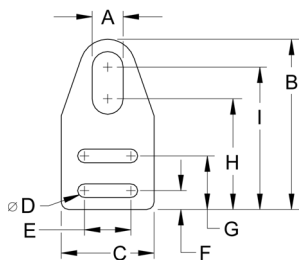
Mounting; Material is 303 Stainless Steel.



| A              | B              | C              | D              | E              | F              | G              | Material thickness | Model      |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|------------|
| 12.1<br>(.476) | 48.8<br>(1.92) | 31.8<br>(1.25) | 5.50<br>(.216) | 19.1<br>(.750) | 11.9<br>(.470) | 32.9<br>(1.30) | 3.05<br>(.120)     | Y92E-B12FS |
| 18.1<br>(.713) | 58.4<br>(2.30) | 38.1<br>(1.50) | 6.12<br>(.241) | 25.4<br>(1.00) | 7.37<br>(.290) | 41.4<br>(1.63) |                    | Y92E-B18FS |
| 30.1<br>(1.18) | 87.1<br>(3.43) | 50.8<br>(2.00) | 9.93<br>(.312) | 31.8<br>(1.25) | 9.53<br>(.375) | 61.4<br>(2.42) |                    | Y92E-B30FS |

## Flat Bracket Slotted (Adjustable) Hole

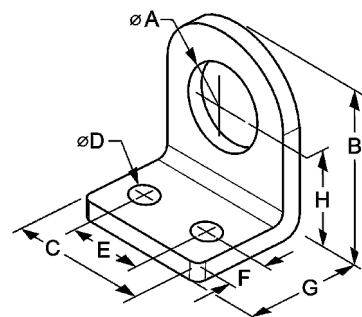
Mounting; Material is Zinc-plated carbon steel.



| A              | B              | C              | D              | E              | F              | G              | H              | I              | Material thickness | Model        |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|--------------|
| 8.10<br>(.319) | 54.3<br>(2.14) | 31.7<br>(1.25) | 5.60<br>(.220) | 15.9<br>(.625) | 7.14<br>(.281) | 19.0<br>(.749) | 38.7<br>(1.52) | 46.2<br>(1.82) | 1.78<br>(.070)     | Y92E-B08FRAS |
| 12.1<br>(.476) | 69.9<br>(2.75) | 38.1<br>(1.50) |                | 19.1<br>(.750) | 7.92<br>(.312) | 22.2<br>(.875) | 45.7<br>(1.80) | 58.4<br>(2.30) |                    | Y92E-B12FRAS |
| 18.1<br>(.713) | 82.6<br>(3.25) | 44.5<br>(1.75) |                | 25.4<br>(1.00) |                |                | 50.8<br>(2.00) | 66.7<br>(2.63) |                    | Y92E-B18FRAS |
| 30.1<br>(1.18) | 105<br>(4.11)  | 57.2<br>(2.25) | 7.24<br>(.285) | 34.8<br>(1.37) | 10.3<br>(.406) | 30.9<br>(1.22) | 49.0<br>(1.93) | 61.2<br>(2.14) | 2.16<br>(.095)     | Y92E-B30FRAS |

## Right Angle Bracket Fixed Hole

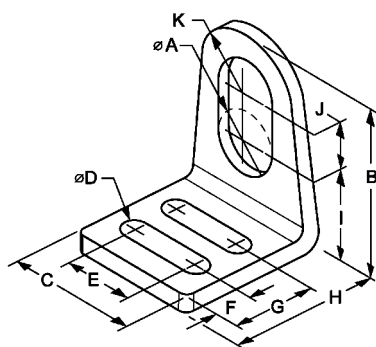
Mounting; Material is 303 Stainless Steel.



| A              | B              | C              | D              | E              | F              | G              | H              | Material thickness | Model      |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|------------|
| 12.1<br>(.476) | 28.6<br>(1.13) | 31.8<br>(1.25) | 5.50<br>(.216) | 19.1<br>(.750) | 11.9<br>(.470) | 25.4<br>(1.00) | 13.5<br>(.530) | 3.00<br>(.118)     | Y92E-B12AS |
| 18.1<br>(.713) | 38.5<br>(1.52) | 38.1<br>(1.50) | 6.12<br>(.241) | 25.4<br>(1.00) | 7.37<br>(.290) |                | 19.8<br>(.781) |                    | Y92E-B18AS |
| 30.1<br>(1.18) | 54.3<br>(2.14) | 50.8<br>(2.00) | 7.92<br>(.312) | 31.8<br>(1.25) | 9.53<br>(.375) | 38.0<br>(1.50) | 28.6<br>(1.13) |                    | Y92E-B30AS |

# Right Angle Bracket Slotted (Adjustable) Hole

Mounting; Material is Zinc-plated carbon steel.



| A              | B              | C              | D              | E              | F              | G              | H              | I              | J              | K              | Material thickness | Model       |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------------|-------------|
| 8.1<br>(.319)  | 25.4<br>(1.00) | 31.8<br>(1.25) | 5.54<br>(.218) | 15.9<br>(.625) | 7.14<br>(.281) | 19<br>(.749)   | 31.8<br>(1.25) | 9.83<br>(.387) | 7.62<br>(.300) | 7.95<br>(.313) | 1.78<br>(.070)     | Y92E-B08RAS |
| 12.1<br>(.476) | 38.1<br>(1.50) | 38.1<br>(1.50) |                | 19.1<br>(.750) | 7.92<br>(.312) | 22.2<br>(.875) | 34.8<br>(1.37) | 14.0<br>(.550) | 12.7<br>(.500) | 11.4<br>(.450) |                    | Y92E-B12RAS |
| 18.1<br>(.713) | 50.8<br>(2.00) | 44.5<br>(1.75) |                | 25.4<br>(1.00) |                |                |                | 19.1<br>(.750) | 15.9<br>(.625) | 15.9<br>(.625) |                    | Y92E-B18RAS |
| 30.1<br>(1.18) | 63.5<br>(2.50) | 57.2<br>(2.25) | 7.13<br>(.281) | 34.8<br>(1.37) | 10.3<br>(.406) | 30.9<br>(1.22) | 44.5<br>(1.75) | 23.0<br>(.907) | 19.1<br>(.750) | 21.4<br>(.843) | 2.16<br>(.095)     | Y92E-B30RAS |

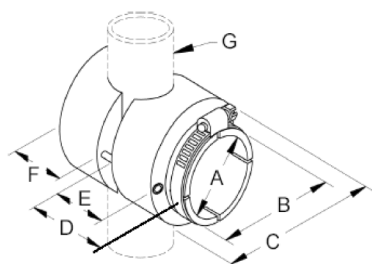
## ■ Sight Glass Mounts

Quickly attach tubular sensors to glass and plastic tubes for level detection. Often used in pairs (high-low) to detect absence or presence of liquids to activate pumps and drains in process control applications. Sight glass mounts offer adjustments "on the fly" with visual feedback for M12, M18 and M30 sensors, mounted to 9.5mm (3/8") through 44mm (1-3/4") pipes. Delrin® construction with all stainless steel fasteners provides corrosion resistance. Instantly converts tubular controls to level sensors, rapid, "out of tank" level adjustments, simple sensor change-out / replacement and very secure mounting.

### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Barrel size | Description                                  | Model             |
|-------------|----------------------------------------------|-------------------|
| M12         | Sight Glass Mount for M12 Barrel Prox        | <b>Y92E-SGM12</b> |
| M18         | Sight Glass Mount for M18 Barrel Prox        | <b>Y92E-SGM18</b> |
| M30         | Sight Glass Mount for M30 Barrel Prox        | <b>Y92E-SGM30</b> |
| M30 (34mm)  | Sight Glass Mount for M30 (34mm) Barrel Prox | <b>Y92E-SGM34</b> |



### Dimensions

Unit: mm (inch)

| A              | B              | C              | D              | E              | F              | G                              | Model      |
|----------------|----------------|----------------|----------------|----------------|----------------|--------------------------------|------------|
| 12.1<br>(0.48) | 19.6<br>(0.77) | 38.1<br>(1.50) | 29.5<br>(1.16) | 13.0<br>(0.51) | 10.5<br>(0.42) | 9.40 to 20.6<br>(0.37 to 0.81) | Y92E-SGM12 |
| 18.1<br>(0.71) | 25.4<br>(1.00) | 45.0<br>(1.77) | 38.1<br>(1.50) | 15.9<br>(0.63) | 11.7<br>(0.46) |                                | Y92E-SGM18 |
| 30.1<br>(1.19) | 36.8<br>(1.45) | 69.9<br>(2.75) | 67.8<br>(2.69) | 31.8<br>(1.25) | 19.1<br>(0.75) | 25.4 to 44.5<br>(1.00 to 1.75) | Y92E-SGM30 |
| 34.1<br>(1.34) |                |                |                |                |                |                                | Y92E-SGM34 |

## ■ Sensor Wells

Sensor Wells are used to adapt tubular proximity sensors to a wide variety of vessels for level detection applications. Different style wells allow a variety of attachment options. Sensor Wells keep systems sealed prior to sensor installation, as well as during sensor removal. Reliability and performance is improved because the sensor is isolated from the system fluids / materials. Sensor Wells are available in Delrin®, HDPE and Fluoroplastic models Flange Mount, SAE & NPT threads. Sensor Wells isolate sensor from system fluids / materials, offers a highly reliable sealing method, simplifies sensor change-out process and extends the sensor operating lifetime. Maximum operating temperature for SWNPT Delrin version is 180 degrees F. Maximum operating temperature for SWNPT Fluoroplastic version is 350 degrees F. Maximum operating temperature for SWSAE UHMW material is 150 degrees F.



SAE Thread Model



Flange Mount Model



NPT Model

## Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

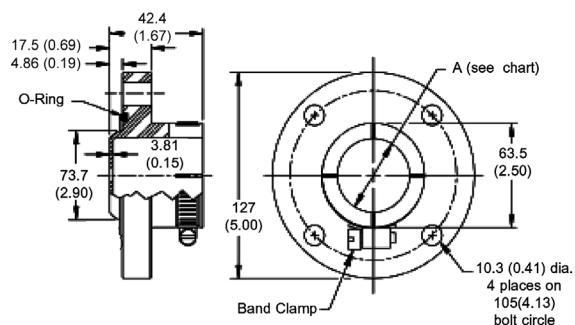
| Sensor well type | Description                                   | Model          |
|------------------|-----------------------------------------------|----------------|
| Flange Mount     | Sensor Well Flange Mount M30 Proximity        | Y92E-SWFM30    |
| Flange Mount     | Sensor Well Flange Mount M30 (34mm) Proximity | Y92E-SWFM34    |
| NPT Thread       | Sensor Well NPT Thread Delrin M12             | Y92E-SWNPT12-D |
| NPT Thread       | Sensor Well NPT Thread Fluoroplastic M12      | Y92E-SWNPT12-T |
| NPT Thread       | Sensor Well NPT Thread Delrin M18             | Y92E-SWNPT18-D |
| NPT Thread       | Sensor Well NPT Thread Fluoroplastic M18      | Y92E-SWNPT18-T |
| NPT Thread       | Sensor Well NPT Thread Delrin M30             | Y92E-SWNPT30-D |
| NPT Thread       | Sensor Well NPT Thread Fluoroplastic M30      | Y92E-SWNPT30-T |
| NPT Thread       | Sensor Well NPT Thread Delrin 34mm            | Y92E-SWNPT34-D |
| NPT Thread       | Sensor Well NPT Thread Fluoroplastic 34mm     | Y92E-SWNPT34-T |
| SAE Thread       | Sensor Well SAE Thread Delrin M18             | Y92E-SWSAE18-D |

**Note:** Flange Mount Smooth Bore (SWFM) models are fabricated using UHMW polyethylene. The O-ring, with an OD of 88.0(3.46), produces the seal and is supplied with Sensor Well.

## Dimensions

Unit: mm (inch)

### Sensor Well Flange Mount

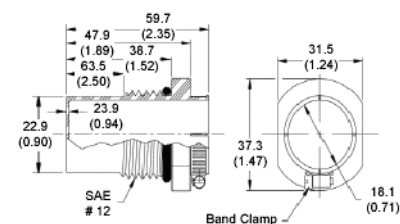


| "A" Dimension | Model       |
|---------------|-------------|
| 30.1 (1.19)   | Y92E-SWFM30 |
| 34.1 (1.35)   | Y92E-SWFM34 |

### Sensor Well NPT Thread

| A              | B              | C              | D              | E              | F              | NPT        | G              | H              | I              | Model              |
|----------------|----------------|----------------|----------------|----------------|----------------|------------|----------------|----------------|----------------|--------------------|
| 44.5<br>(1.75) | 33.0<br>(1.30) | 26.7<br>(1.05) | 9.14<br>(0.36) | 0.76<br>(0.03) | 17.8<br>(0.70) | 1/2x14     | 25.1<br>(0.99) | 31.8<br>(1.25) | 12.1<br>(0.48) | Y92E-SWNPT12-(D/T) |
| 59.7<br>(2.35) | 48.1<br>(1.90) | 38.9<br>(1.53) | 16.5<br>(0.65) | 1.27<br>(0.05) | 22.6<br>(0.89) | 3/4x14     | 31.5<br>(1.24) | 37.3<br>(1.47) | 18.1<br>(0.71) | Y92E-SWNPT18-(D/T) |
|                |                |                |                | 1.91<br>(0.08) | 36.6<br>(1.44) | 1-1/4x11.5 | 44.5<br>(1.75) | 50.0<br>(1.97) | 30.1<br>(1.19) | Y92E-SWNPT30-(D/T) |
|                |                |                | 19.3<br>(0.76) | 2.03<br>(0.08) | 41.1<br>(1.63) | 1-1/2x11.5 | 56.9<br>(2.24) | 63.2<br>(2.49) | 34.1<br>(1.34) | Y92E-SWNPT34-(D/T) |

### Sensor Well SAE Thread for M18 Prox



## ■ Sensor Checker

Full Function Sensor Checker in a pocket-sized non-metallic enclosure. Includes easy push-type terminals making wire connections simple and quick. Allows troubleshooting and or demonstration of DC sensors; 2, 3, 4-wire and NAMUR type sensor built to DIN 19234 specifications. Confirms operation of inductive, photoelectric, capacitive and ultrasonic sensors. Wiring instructions are printed on the case. Includes dual operation indicators LED and buzzer. Uses and is supplied with two 9V batteries. Easily confirm sensor operation, confirm PNP vs. NPN, reduce your troubleshooting time.

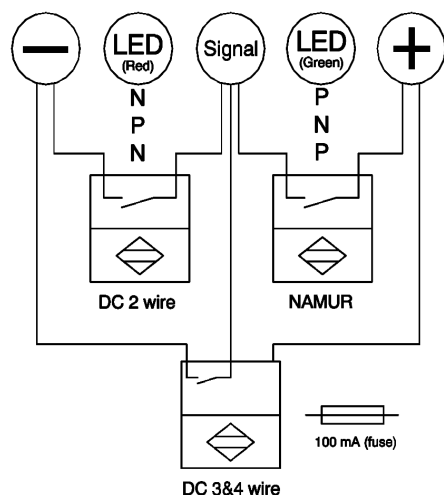
## Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

|                                        | Model    |
|----------------------------------------|----------|
| Sensor Checker includes 2 9V Batteries | Y92E-SC1 |



## Wiring Connections



## Specifications



|                          |                   |
|--------------------------|-------------------|
| Supply voltage           | 18 VDC            |
| Maximum rated load       | 100mA (fused)     |
| Short circuit protection | Yes               |
| Over voltage protection  | Yes               |
| LED display              | Yes (2)           |
| Audible output           | Yes               |
| Operating temperature    | Room temperature  |
| Humidity                 | 80% noncondensing |
| Housing material         | ABS               |
| Protection class         | IP67              |
| Battery                  | 9v (2)            |

## ■ Weld Jacket

Weld Jacket is a protective covering for cordsets. Weld Jacket slips over the cable and the connector portion to offer protection in harsh welding environments. Weld Jacket is available in 1/2" or 3/4" diameter by 3 foot or 50 foot lengths.



### Ordering Information

**Note:** Shaded models are normally stocked. Un-shaded models require 2-3 weeks delivery.

| Jacket diameter | Description                     | Model          |
|-----------------|---------------------------------|----------------|
| 1/2"            | 1/2" Weld Jacket 36 inch length | Y92E-WJ12X36IN |
| 1/2"            | 1/2" Weld Jacket 50 foot length | Y92E-WJ12X50FT |
| 3/4"            | 3/4" Weld Jacket 36 inch length | Y92E-WJ34X36IN |
| 3/4"            | 3/4" Weld Jacket 50 foot length | Y92E-WJ34X50FT |

Description: Woven fiberglass sleeving coated with a specially formulated and proprietary silicone rubber. Exhibits exceptional high-temperature properties, flexibility, and toughness and abrasion resistance. Silicone rubber finish provides superior thermal protection, flame resistance and makes it an ideal choice for welding applications requiring outstanding physical and insulation properties in high operating temperatures.

Thermal Endurance: -80°C to +240°C (-112°F to +464°F)

Chemical Endurance:

1. Oil and Solvent Resistance: passes MIL-I-3190/9
2. Water Vapor Resistance: passes MIL-I-3190/9
3. Excellent Resistance to Acids and Alkalies.
4. Resistance to mildew, aging and sunlight: unaffected by sunlight and weather.
5. Compatibility UL 1446 Good. Compatible with most varnishes.

Standards: Exceeds the requirements of UL 1441- table 19.8, NEMA TF-1- type 5 and ASTM-D372.

# Certain Terms and Conditions of Sale

1. **Offer; Acceptance.** These terms and conditions (these "Terms") are deemed part of all catalogs, manuals or other documents, whether electronic or in writing, relating to the sale of goods or services (collectively, the "Goods") by Omron Electronics LLC and its subsidiary companies ("Seller"). Seller hereby objects to any terms or conditions proposed in Buyer's purchase order or other documents which are inconsistent with, or in addition to, these Terms. Please contact your Omron representative to confirm any additional terms for sales from your Omron company.
2. **Prices.** All prices stated are current, subject to change without notice by Seller. Buyer agrees to pay the price in effect at time of shipment.
3. **Discounts.** Cash discounts, if any, will apply only on the net amount of invoices sent to Buyer after deducting transportation charges, taxes and duties, and will be allowed only if (i) the invoice is paid according to Seller's payment terms and (ii) Buyer has no past due amounts owing to Seller.
4. **Orders.** Seller will accept no order less than \$200 net billing.
5. **Governmental Approvals.** Buyer shall be responsible for, and shall bear all costs involved in, obtaining any government approvals required for the importation or sale of the Goods.
6. **Taxes.** All taxes, duties and other governmental charges (other than general real property and income taxes), including any interest or penalties thereon, imposed directly or indirectly on Seller or required to be collected directly or indirectly by Seller for the manufacture, production, sale, delivery, importation, consumption or use of the Goods sold hereunder (including customs duties and sales, excise, use, turnover and license taxes) shall be charged to and remitted by Buyer to Seller.
7. **Financial.** If the financial position of Buyer at any time becomes unsatisfactory to Seller, Seller reserves the right to stop shipments or require satisfactory security or payment in advance. If Buyer fails to make payment or otherwise comply with these Terms or any related agreement, Seller may (without liability and in addition to other remedies) cancel any unshipped portion of Goods sold hereunder and stop any Goods in transit until Buyer pays all amounts, including amounts payable hereunder, whether or not then due, which are owing to it by Buyer. Buyer shall in any event remain liable for all unpaid accounts.
8. **Cancellation; Etc.** Orders are not subject to rescheduling or cancellation unless Buyer indemnifies Seller fully against all costs or expenses arising in connection therewith.
9. **Force Majeure.** Seller shall not be liable for any delay or failure in delivery resulting from causes beyond its control, including earthquakes, fires, floods, strikes or other labor disputes, shortage of labor or materials, accidents to machinery, acts of sabotage, riots, delay in or lack of transportation or the requirements of any government authority.
10. **Shipping; Delivery.** Unless otherwise expressly agreed in writing by Seller:
  - a. Shipments shall be by a carrier selected by Seller;
  - b. Such carrier shall act as the agent of Buyer and delivery to such carrier shall constitute delivery to Buyer;
  - c. All sales and shipments of Goods shall be FOB shipping point (unless otherwise stated in writing by Seller), at which point title to and all risk of loss of the Goods shall pass from Seller to Buyer, provided that Seller shall retain a security interest in the Goods until the full purchase price is paid by Buyer;
  - d. Delivery and shipping dates are estimates only.
  - e. Seller will package Goods as it deems proper for protection against normal handling and extra charges apply to special conditions.
11. **Claims.** Any claim by Buyer against Seller for shortage or damage to the Goods occurring before delivery to the carrier must be presented in writing to Seller within 30 days of receipt of shipment and include the original transportation bill signed by the carrier noting that the carrier received the Goods from Seller in the condition claimed.
12. **Warranties.** (a) **Exclusive Warranty.** Seller's exclusive warranty is that the Goods will be free from defects in materials and workmanship for a period of twelve months from the date of sale by Seller (or such other period expressed in writing by Seller). Seller disclaims all other warranties, express or implied. (b) **Limitations.** SELLER MAKES NO WARRANTY OR REPRESENTATION, EXPRESS OR IMPLIED, ABOUT NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE GOODS. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE GOODS WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. Seller further disclaims all warranties and responsibility of any type for claims or expenses based on infringement by the Goods or otherwise of any intellectual property right. (c) **Buyer Remedy.** Seller's sole obligation hereunder shall be to replace (in the form originally shipped with Buyer responsible for labor charges for removal or replacement thereof) the non-complying Good or, at Seller's election, to repay or credit Buyer an amount equal to the purchase price of the Good; provided that in no event shall Seller be responsible for warranty, repair, indemnity or any other claims or expenses regarding the Goods unless Seller's analysis confirms that the Goods were properly handled, stored, installed and maintained and not subject to contamination, abuse, misuse or inappropriate modification. Return of any goods by Buyer must be approved in writing by Seller before shipment. Seller shall not be liable for the suitability or unsuitability or the results from the use of Goods in combination with any electrical or electronic components, circuits, system assemblies or any other materials or substances or environments. Any advice, recommendations or information given orally or in writing, are not to be construed as an amendment or addition to the above warranty.
13. **Damage Limits; Etc.** SELLER SHALL NOT BE LIABLE FOR SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, LOSS OF PROFITS OR PRODUCTION OR COMMERCIAL LOSS IN ANY WAY CONNECTED WITH THE GOODS, WHETHER SUCH CLAIM IS BASED IN CONTRACT, WARRANTY, NEGLIGENCE OR STRICT LIABILITY. Further, in no event shall liability of Seller exceed the individual price of the Good on which liability is asserted.
14. **Indemnities.** Buyer shall indemnify and hold harmless Seller, its affiliates and its employees from and against all liabilities, losses, claims, costs and expenses (including attorney's fees and expenses) related to any claim, investigation, litigation or proceeding (whether or not Seller is a party) which arises or is alleged to arise from Buyer's acts or omissions under these Terms or in any way with respect to the Goods. Without limiting the foregoing, Buyer (at its own expense) shall indemnify and hold harmless Seller and defend or settle any action brought against Seller to the extent that it is based on a claim that any Good made to Buyer specifications infringed intellectual property rights of another party.
15. **Property; Confidentiality.** The intellectual property embodied in the Goods is the exclusive property of Seller and its affiliates and Buyer shall not attempt to duplicate it in any way without the written permission of Seller. Notwithstanding any charges to Buyer for engineering or tooling, all engineering and tooling shall remain the exclusive property of Seller. All information and materials supplied by Seller to Buyer relating to the Goods are confidential and proprietary, and Buyer shall limit distribution thereof to its trusted employees and strictly prevent disclosure to any third party.
16. **Miscellaneous.** (a) **Waiver.** No failure or delay by Seller in exercising any right and no course of dealing between Buyer and Seller shall operate as a waiver of rights by Seller. (b) **Assignment.** Buyer may not assign its rights hereunder without Seller's written consent. (c) **Amendment.** These Terms constitute the entire agreement between Buyer and Seller relating to the Goods, and no provision may be changed or waived unless in writing signed by the parties. (d) **Severability.** If any provision hereof is rendered ineffective or invalid, such provision shall not invalidate any other provision. (e) **Setoff.** Buyer shall have no right to set off any amounts against the amount owing in respect of this invoice. (f) As used herein, "including" means "including without limitation".

# Certain Precautions on Specifications and Use

1. **Suitability of Use.** Seller shall not be responsible for conformity with any standards, codes or regulations which apply to the combination of the Good in the Buyer's application or use of the Good. At Buyer's request, Seller will provide applicable third party certification documents identifying ratings and limitations of use which apply to the Good. This information by itself is not sufficient for a complete determination of the suitability of the Good in combination with the end product, machine, system, or other application or use. The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of this Good, nor is it intended to imply that the uses listed may be suitable for this Good:
  - (i) Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this document.
  - (ii) Energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
  - (iii) Systems, machines and equipment that could present a risk to life or property. Please know and observe all prohibitions of use applicable to this Good.

NEVER USE THE PRODUCT FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE SELLER'S PRODUCT IS PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.
2. **Programmable Products.** Seller shall not be responsible for the user's programming of a programmable Good, or any consequence thereof.
3. **Performance Data.** Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of Seller's test conditions, and the user must correlate it to actual application requirements. Actual performance is subject to the Seller's Warranty and Limitations of Liability.
4. **Change in Specifications.** Product specifications and accessories may be changed at any time based on improvements and other reasons. It is our practice to change part numbers when published ratings or features are changed or when significant construction changes are made. However, some specifications of the Good may be changed without any notice. When in doubt, specific part numbers may be assigned to fix or establish key specifications for your application. Please consult with your Seller's representative at any time to confirm actual specifications of purchased Good.
5. **Errors and Omissions.** The information in this catalog has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical or proofreading errors, or omissions.

Complete "Terms and Conditions of Sale" for product purchase and use are on Omron's website at [www.omron.com/oei](http://www.omron.com/oei) – under the "About Us" tab, in the Legal Matters section.

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