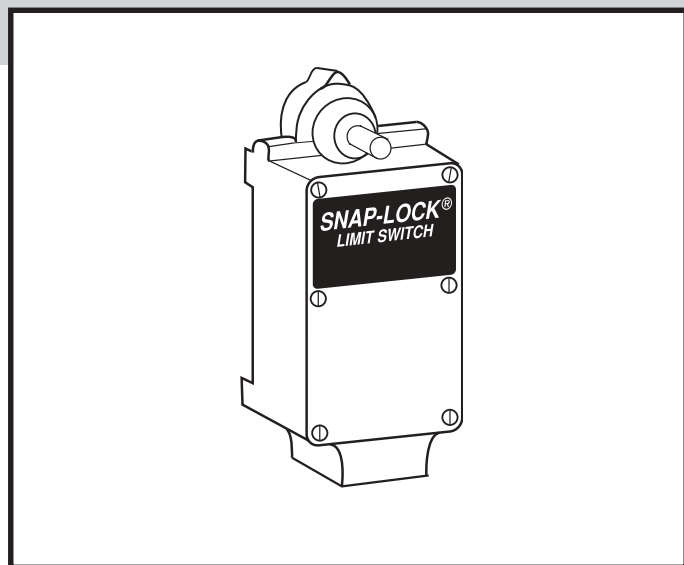


Nuclear Qualified Products



Limit Switches/ Receptacle Assembly... For Nuclear Environments

Features:

- Qualified to IEEE Standards 344-1975, 323-1974, and 382-1972.
- Manufactured to a quality assurance program designed to meet the requirements of 10CFR50, Appendix B, and ANSI N45.2, as applicable.
- Die-cast bronze housing.
- Stainless steel top cover and fasteners.
- Gold-plated contacts.
- High temperature components throughout.
- High temperature lubricants.
- Seismic and vibration resistant.
- Resists chemical spray.
- Three mounting styles.
- EA 180 has a positive lever latching mechanism.

Technical Data:

- Two normally open and two normally closed, NEMA form Z contact arrangement.
- Enclosure meets NEMA 1, 4 and 13 requirements for dust-tight, water-tight and oil-tight applications.
- Operating lever is adjustable in 7°30' increments through 173°.
- Adequate wiring space for nine conductors.
- Operating temperature 0° to 90°C.
- Short term exposure to 175°C.
- EA 180-302/402 has 10° or 6½ ° pre-travel, maximum travel 37°.
- Weight EA 180-302: 4.5 lbs.; EA 180-402: 5.5 lbs.
- DBE maximum test parameters — temperature 340°F, pressure 70 PSIG, radiation 204 megarads gamma.

Continuous Current Rating 75-100% Power Factor*

| | |
|---------|----------|
| 125 VAC | 20 AMPS* |
| 250 VAC | 15 AMPS* |
| 480 VAC | 10 AMPS* |
| 600 VAC | 5 AMPS* |
| 125 VDC | 5 AMPS |
| 250 VDC | 1.5 AMPS |

Receptacle Data

- Qualified receptacle sealed in place.
- Qualified ring tongue terminal applied to leads.
- Every assembly tested before shipment.
- Qualified lead wires.
- Receptacle keyed for proper alignment of connector.
- All circuits wired.
- Circuits of receptacle identified the same as limit switch A, B, C, D, etc.

FOR INSIDE CONTAINMENT AREAS SWITCHES SHOULD BE SPECIFIED AS FOLLOWS:

EA180 Series*

| Series | Operation | Standard | Wide | Long |
|--------------------------|-----------|----------|-------|-------|
| | | EA180- | | |
| EA180 Standard | CW | 11302 | 21302 | 31302 |
| | CCW | 12302 | 22302 | 32302 |
| | Maint. | 13302 | 23302 | 33302 |
| EA180 Short Travel | CW | 14302 | 24302 | 34302 |
| | CCW | 15302 | 25302 | 35302 |
| | Maint. | 16302 | 26302 | 36302 |

* For inside containment — see catalog EA170-XX302.

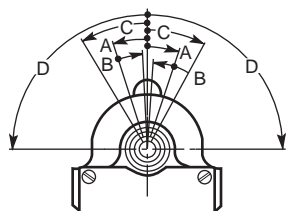
EA180 Series with Receptacle**

| Series | Operation | Standard | Wide | Long |
|--------------------------|-----------|----------|-------|-------|
| | | EA180- | | |
| EA180 Standard | CW | 11402 | 21402 | 31402 |
| | CCW | 12402 | 22402 | 32402 |
| | Maint. | 13402 | 23402 | 33402 |
| EA180 Short Travel | CW | 14402 | 24402 | 34402 |
| | CCW | 15402 | 25402 | 35402 |
| | Maint. | 16402 | 26402 | 36402 |

** For outside containment — see catalog EA170-XX402.

Male Receptacle Assemblies may be ordered separately.
Please order part number EC290-19001.

Operational Data



RETURN SPRING MOUNTED ON THIS SIDE OF SWITCH FOR "CCW" OPERATION.

RETURN SPRING MOUNTED ON THIS SIDE OF SWITCH FOR "CW" OPERATION.

Series EA180 - Standard
Direction of Rotation

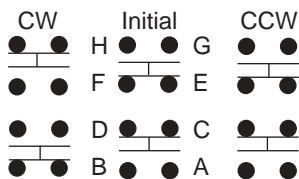
| | |
|-------------------------------|-----|
| A. Trip Travel | 10° |
| B. Reset Travel | 8° |
| C. Recommended Travel | 13° |
| D. Total Travel | 37° |
| E. Torque to Trip (Inch Lbs.) | 21 |

Series EA180 - Short Travel

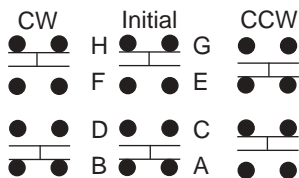
| | |
|-------------------------------|-------|
| A. Trip Travel | 6°30' |
| B. Reset Travel | 4° |
| C. Recommended Travel | 7° |
| D. Total Travel | 36° |
| E. Torque to Trip (Inch Lbs.) | 32 |

Contact Configuration:

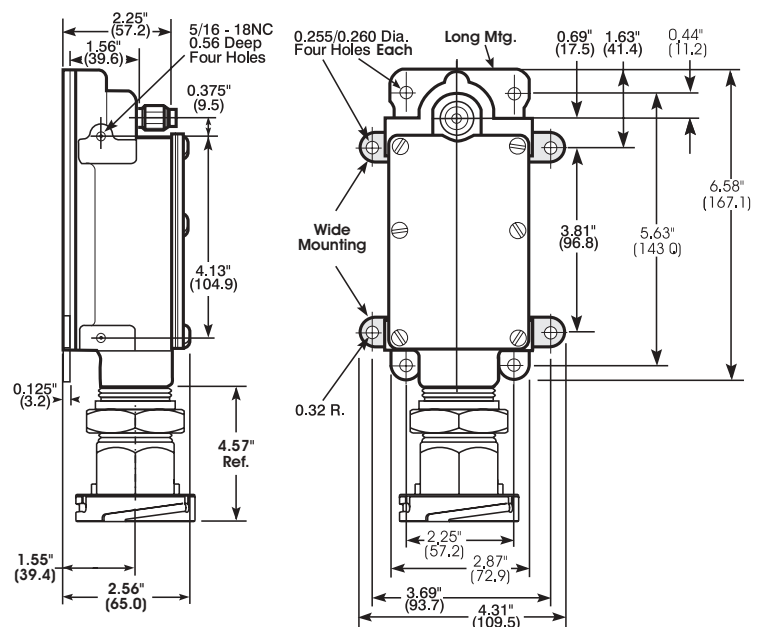
For CW Switch



For CCW Switch



Dimensions



PLUG-IN CABLES: Cable lengths for the above Switch/ Receptacle Assemblies should be ordered with specific cable lengths as follows . . .

| Plug-In Cables | |
|----------------|--------|
| Length | EC290- |
| 20 Ft. | 29020 |
| 25 Ft. | 29025 |
| 30 Ft. | 29030 |
| 35 Ft. | 29035 |
| 50 Ft. | 29050 |
| 100 Ft. | 29100 |

LEVERS: For use inside containment area, levers with bronze arms and beryllium copper rollers are recommended.

Note: Levers must be ordered as separate item. For information request Lever Bulletin EL.

ADAPTORS: Straight and elbow adapters are available for direct mounting into limit switches. See CD/EH700 Series Bulletin.